

Index Page

Replies to initial written questions raised by Finance Committee Members in examining the Estimates of Expenditure 2019-20

Director of Bureau : Secretary for the Environment

Session No. : 7

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Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
ENB001	1379	CHAN Hak-kan	22	(2) Nature Conservation and Country Parks
ENB002	3188	CHAN Han-pan	22	(2) Nature Conservation and Country Parks
ENB003	2951	CHAN Tanya	22	(2) Nature Conservation and Country Parks
ENB004	3101	CHU Hoi-dick	22	(2) Nature Conservation and Country Parks
ENB005	1158	HO Chun-yin, Steven	22	(2) Nature Conservation and Country Parks
ENB006	1161	HO Chun-yin, Steven	22	(2) Nature Conservation and Country Parks
ENB007	1172	HO Chun-yin, Steven	22	(2) Nature Conservation and Country Parks
ENB008	1174	HO Chun-yin, Steven	22	(2) Nature Conservation and Country Parks
ENB009	1101	HO Kwan-yiu, Junius	22	(2) Nature Conservation and Country Parks
ENB010	1102	HO Kwan-yiu, Junius	22	(2) Nature Conservation and Country Parks
ENB011	2764	HUI Chi-fung	22	(2) Nature Conservation and Country Parks
ENB012	2765	HUI Chi-fung	22	(2) Nature Conservation and Country Parks
ENB013	2766	HUI Chi-fung	22	(2) Nature Conservation and Country Parks
ENB014	0269	LAM Kin-fung, Jeffrey	22	(2) Nature Conservation and Country Parks
ENB015	1403	LAM Kin-fung, Jeffrey	22	(2) Nature Conservation and Country Parks
ENB016	1419	LAM Kin-fung, Jeffrey	22	(2) Nature Conservation and Country Parks
ENB017	0799	LAU Ip-keung, Kenneth	22	(2) Nature Conservation and Country Parks
ENB018	1870	LEUNG Kenneth	22	(2) Nature Conservation and Country Parks
ENB019	0676	LO Wai-kwok	22	(2) Nature Conservation and

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
				Country Parks
ENB020	2360	MO Claudia	22	(2) Nature Conservation and Country Parks
ENB021	2364	MO Claudia	22	(2) Nature Conservation and Country Parks
ENB022	2366	MO Claudia	22	(2) Nature Conservation and Country Parks
ENB023	1674	NG Wing-ka, Jimmy	22	(2) Nature Conservation and Country Parks
ENB024	2212	OR Chong-shing, Wilson	22	(2) Nature Conservation and Country Parks
ENB025	2226	QUAT Elizabeth	22	(2) Nature Conservation and Country Parks
ENB026	0123	SHEK Lai-him, Abraham	22	(2) Nature Conservation and Country Parks
ENB027	0130	SHEK Lai-him, Abraham	22	(2) Nature Conservation and Country Parks
ENB028	1515	YIU Si-wing	22	(2) Nature Conservation and Country Parks
ENB029	1523	YIU Si-wing	22	(2) Nature Conservation and Country Parks
ENB030	1543	YIU Si-wing	22	(2) Nature Conservation and Country Parks
ENB031	3059	CHU Hoi-dick	33	(7) Management of Construction and Demolition Materials
ENB032	0660	KWOK Wai-keung	33	(7) Management of Construction and Demolition Materials
ENB033	2388	MO Claudia	33	(7) Management of Construction and Demolition Materials
ENB034	3182	CHAN Han-pan	39	(2) Sewage Services
ENB035	0058	CHEUNG Yu-yan, Tommy	39	(2) Sewage Services
ENB036	1573	LEUNG Mei-fun, Priscilla	39	(2) Sewage Services
ENB037	1575	LEUNG Mei-fun, Priscilla	39	(2) Sewage Services
ENB038	2239	QUAT Elizabeth	39	(2) Sewage Services
ENB039	2240	QUAT Elizabeth	39	(2) Sewage Services
ENB040	3152	CHAN Chi-chuen	42	(3) Energy Efficiency and Conservation, and Alternative Energy
ENB041	1875	LEUNG Kenneth	42	(3) Energy Efficiency and Conservation, and Alternative

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
				Energy
ENB042	1877	LEUNG Kenneth	42	(3) Energy Efficiency and Conservation, and Alternative Energy
ENB043	2261	QUAT Elizabeth	42	(3) Energy Efficiency and Conservation, and Alternative Energy
ENB044	1064	YICK Chi-ming, Frankie	42	(1) Energy Supply; Electrical, Gas and Nuclear Safety
ENB045	3128	CHAN Chi-chuen	44	(1) Waste
ENB046	3129	CHAN Chi-chuen	44	(1) Waste
ENB047	3161	CHAN Chi-chuen	44	(1) Waste
ENB048	0987	CHAN Hak-kan	44	(2) Air
ENB049	1380	CHAN Hak-kan	44	(1) Waste
ENB050	1381	CHAN Hak-kan	44	(1) Waste
ENB051	1382	CHAN Hak-kan	44	(1) Waste
ENB052	1384	CHAN Hak-kan	44	(1) Waste
ENB053	1385	CHAN Hak-kan	44	(1) Waste
ENB054	1386	CHAN Hak-kan	44	(1) Waste
ENB055	1387	CHAN Hak-kan	44	(2) Air
ENB056	1393	CHAN Hak-kan	44	(1) Waste
ENB057	1394	CHAN Hak-kan	44	(1) Waste
ENB058	1395	CHAN Hak-kan	44	(1) Waste
ENB059	3184	CHAN Han-pan	44	(3) Noise
ENB060	0044	CHEUNG Yu-yan, Tommy	44	(1) Waste
ENB061	0045	CHEUNG Yu-yan, Tommy	44	(1) Waste
ENB062	0046	CHEUNG Yu-yan, Tommy	44	(1) Waste
ENB063	0059	CHEUNG Yu-yan, Tommy	44	(1) Waste
ENB064	0729	CHIANG Lai-wan	44	(2) Air
ENB065	3072	CHU Hoi-dick	44	(1) Waste
ENB066	3073	CHU Hoi-dick	44	(1) Waste
ENB067	3074	CHU Hoi-dick	44	(1) Waste
ENB068	3075	CHU Hoi-dick	44	(1) Waste
ENB069	3091	CHU Hoi-dick	44	(1) Waste
ENB070	3092	CHU Hoi-dick	44	(1) Waste
ENB071	3105	CHU Hoi-dick	44	(1) Waste
ENB072	3106	CHU Hoi-dick	44	(1) Waste
ENB073	3224	CHU Hoi-dick	44	(6) Nature Conservation
ENB074	2861	FAN Kwok-wai, Gary	44	(4) Water
ENB075	1103	HO Kwan-yiu, Junius	44	(1) Waste

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
ENB076	1104	HO Kwan-yiu, Junius	44	(2) Air
ENB077	1105	HO Kwan-yiu, Junius	44	(1) Waste
ENB078	1106	HO Kwan-yiu, Junius	44	(2) Air
ENB079	1107	HO Kwan-yiu, Junius	44	(1) Waste
ENB080	1108	HO Kwan-yiu, Junius	44	(2) Air
ENB081	1109	HO Kwan-yiu, Junius	44	(2) Air
ENB082	2735	HUI Chi-fung	44	(2) Air
ENB083	2741	HUI Chi-fung	44	(2) Air
ENB084	2767	HUI Chi-fung	44	(1) Waste
ENB085	2768	HUI Chi-fung	44	(1) Waste
ENB086	2769	HUI Chi-fung	44	(1) Waste
ENB087	2770	HUI Chi-fung	44	(1) Waste
ENB088	2771	HUI Chi-fung	44	(1) Waste
ENB089	3236	HUI Chi-fung	44	(1) Waste
ENB090	3291	HUI Chi-fung	44	(1) Waste
ENB091	1488	IP LAU Suk-ye, Regina	44	(3) Noise
ENB092	1496	IP LAU Suk-ye, Regina	44	(1) Waste
ENB093	1497	IP LAU Suk-ye, Regina	44	(1) Waste
ENB094	1498	IP LAU Suk-ye, Regina	44	(1) Waste
ENB095	1499	IP LAU Suk-ye, Regina	44	(2) Air
ENB096	3198	IP LAU Suk-ye, Regina	44	(2) Air
ENB097	0661	KWOK Wai-keung	44	(4) Water
ENB098	0662	KWOK Wai-keung	44	(1) Waste
ENB099	0663	KWOK Wai-keung	44	(1) Waste
ENB100	0664	KWOK Wai-keung	44	(1) Waste
ENB101	0665	KWOK Wai-keung	44	(1) Waste
ENB102	0666	KWOK Wai-keung	44	(1) Waste
ENB103	1643	KWOK Wai-keung	44	(1) Waste
ENB104	1649	KWOK Wai-keung	44	(2) Air
ENB105	1650	KWOK Wai-keung	44	(2) Air
ENB106	3268	KWOK Wai-keung	44	(6) Nature Conservation
ENB107	2495	KWOK Wing-hang, Dennis	44	(2) Air
ENB108	2496	KWOK Wing-hang,	44	(2) Air

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
		Dennis		
ENB109	1409	LAM Kin-fung, Jeffrey	44	(2) Air
ENB110	0800	LAU Ip-keung, Kenneth	44	(6) Nature Conservation
ENB111	1192	LAU Ip-keung, Kenneth	44	(2) Air
ENB112	1843	LEUNG Che-cheung	44	(6) Nature Conservation
ENB113	1849	LEUNG Che-cheung	44	(2) Air
ENB114	1869	LEUNG Kenneth	44	(1) Waste
ENB115	1871	LEUNG Kenneth	44	(1) Waste
ENB116	1872	LEUNG Kenneth	44	(2) Air
ENB117	1873	LEUNG Kenneth	44	(2) Air
ENB118	1878	LEUNG Kenneth	44	(3) Noise
ENB119	1879	LEUNG Kenneth	44	(1) Waste
ENB120	1880	LEUNG Kenneth	44	(1) Waste
ENB121	1881	LEUNG Kenneth	44	(2) Air
ENB122	1882	LEUNG Kenneth	44	(2) Air
ENB123	1883	LEUNG Kenneth	44	(1) Waste
ENB124	1887	LEUNG Kenneth	44	(1) Waste
ENB125	1577	LEUNG Mei-fun, Priscilla	44	(4) Water
ENB126	2000	LIAO Cheung-kong, Martin	44	(2) Air
ENB127	2001	LIAO Cheung-kong, Martin	44	(5) Environmental Assessment and Planning
ENB128	0681	LO Wai-kwok	44	(1) Waste
ENB129	0682	LO Wai-kwok	44	(1) Waste
ENB130	0683	LO Wai-kwok	44	(4) Water
ENB131	0684	LO Wai-kwok	44	(6) Nature Conservation
ENB132	0685	LO Wai-kwok	44	(2) Air
ENB133	1738	MA Fung-kwok	44	(1) Waste
ENB134	1787	MOK Charles Peter	44	(2) Air
ENB135	1788	MOK Charles Peter	44	(2) Air
ENB136	1671	NG Wing-ka, Jimmy	44	(2) Air
ENB137	0877	OR Chong-shing, Wilson	44	(2) Air
ENB138	0931	OR Chong-shing, Wilson	44	(2) Air
ENB139	0404	POON Siu-ping	44	(2) Air
ENB140	1660	POON Siu-ping	44	(1) Waste

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
ENB141	2220	QUAT Elizabeth	44	(1) Waste
ENB142	2221	QUAT Elizabeth	44	(1) Waste
ENB143	2222	QUAT Elizabeth	44	(2) Air
ENB144	2262	QUAT Elizabeth	44	(2) Air
ENB145	1466	SHEK Lai-him, Abraham	44	(1) Waste
ENB146	1467	SHEK Lai-him, Abraham	44	(2) Air
ENB147	2019	SHIU Ka-fai	44	(1) Waste
ENB148	2020	SHIU Ka-fai	44	(1) Waste
ENB149	2021	SHIU Ka-fai	44	(1) Waste
ENB150	2022	SHIU Ka-fai	44	(2) Air
ENB151	2023	SHIU Ka-fai	44	(2) Air
ENB152	3230	SHIU Ka-fai	44	(1) Waste
ENB153	3285	SHIU Ka-fai	44	(0) -
ENB154	2786	TAM Man-ho, Jeremy	44	(2) Air
ENB155	2790	TAM Man-ho, Jeremy	44	(2) Air
ENB156	2791	TAM Man-ho, Jeremy	44	(2) Air
ENB157	2792	TAM Man-ho, Jeremy	44	(2) Air
ENB158	0292	TSE Wai-chuen, Tony	44	(1) Waste
ENB159	0293	TSE Wai-chuen, Tony	44	(1) Waste
ENB160	0294	TSE Wai-chuen, Tony	44	(1) Waste
ENB161	0295	TSE Wai-chuen, Tony	44	(2) Air
ENB162	1035	YICK Chi-ming, Frankie	44	(2) Air
ENB163	1042	YICK Chi-ming, Frankie	44	(2) Air
ENB164	1044	YICK Chi-ming, Frankie	44	(1) Waste
ENB165	1052	YICK Chi-ming, Frankie	44	(2) Air
ENB166	1059	YICK Chi-ming, Frankie	44	(2) Air
ENB167	1060	YICK Chi-ming, Frankie	44	(2) Air
ENB168	1527	YIU Si-wing	44	(2) Air
ENB169	2031	YUNG Hoi-yan	44	(2) Air
ENB170	2044	YUNG Hoi-yan	44	(1) Waste

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
ENB171	3288	YUNG Hoi-yan	44	(1) Waste
ENB172	3213	KWOK Wai-keung	60	(1) Capital Projects
ENB173	3181	CHAN Han-pan	100	(2) Port Services
ENB174	1383	CHAN Hak-kan	137	(2) Power
ENB175	1309	CHUNG Kwok-pan	137	(3) Sustainable Development
ENB176	2848	FAN Kwok-wai, Gary	137	(3) Sustainable Development
ENB177	1494	IP LAU Suk-yea, Regina	137	(2) Power
ENB178	1495	IP LAU Suk-yea, Regina	137	(2) Power
ENB179	2600	KWOK Ka-ki	137	(2) Power
ENB180	2499	KWOK Wing-hang, Dennis	137	(1) Director of Bureau's Office
ENB181	1874	LEUNG Kenneth	137	(2) Power
ENB182	1884	LEUNG Kenneth	137	(2) Power
ENB183	1885	LEUNG Kenneth	137	(3) Sustainable Development
ENB184	2002	LIAO Cheung-kong, Martin	137	(2) Power
ENB185	2017	SHIU Ka-fai	137	(2) Power
ENB186	2018	SHIU Ka-fai	137	(2) Power
ENB187	0262	TSE Wai-chuen, Tony	137	(2) Power
ENB188	2402	WU Chi-wai	137	(2) Power
ENB189	0841	YEUNG Alvin	137	(1) Director of Bureau's Office
ENB190	2039	YUNG Hoi-yan	137	(2) Power
ENB191	4714	CHAN Chi-chuen	22	(2) Nature Conservation and Country Parks
ENB192	4715	CHAN Chi-chuen	22	(2) Nature Conservation and Country Parks
ENB193	3460	CHAN Hak-kan	22	(2) Nature Conservation and Country Parks
ENB194	5079	CHAN Tanya	22	(2) Nature Conservation and Country Parks
ENB195	6286	CHAN Tanya	22	(2) Nature Conservation and Country Parks
ENB196	6287	CHAN Tanya	22	(2) Nature Conservation and Country Parks
ENB197	6296	CHAN Tanya	22	(2) Nature Conservation and Country Parks
ENB198	4821	CHEUNG Chiu-hung, Fernando	22	(2) Nature Conservation and Country Parks
ENB199	4845	CHEUNG	22	(2) Nature Conservation and

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
		Chiu-hung, Fernando		Country Parks
ENB200	4849	CHEUNG Chiu-hung, Fernando	22	(2) Nature Conservation and Country Parks
ENB201	4850	CHEUNG Chiu-hung, Fernando	22	(2) Nature Conservation and Country Parks
ENB202	4852	CHEUNG Chiu-hung, Fernando	22	(2) Nature Conservation and Country Parks
ENB203	7282	CHEUNG Kwok-kwan	22	(2) Nature Conservation and Country Parks
ENB204	3573	HO Chun-yin, Steven	22	(2) Nature Conservation and Country Parks
ENB205	4371	HUI Chi-fung	22	(2) Nature Conservation and Country Parks
ENB206	6126	KWOK Ka-ki	22	(2) Nature Conservation and Country Parks
ENB207	6320	KWOK Ka-ki	22	(2) Nature Conservation and Country Parks
ENB208	6322	KWOK Ka-ki	22	(2) Nature Conservation and Country Parks
ENB209	4504	TAM Man-ho, Jeremy	22	(2) Nature Conservation and Country Parks
ENB210	5143	TAM Man-ho, Jeremy	22	(2) Nature Conservation and Country Parks
ENB211	4688	WU Chi-wai	22	(2) Nature Conservation and Country Parks
ENB212	4689	WU Chi-wai	22	(2) Nature Conservation and Country Parks
ENB213	4690	WU Chi-wai	22	(2) Nature Conservation and Country Parks
ENB214	4101	YEUNG Alvin	22	(2) Nature Conservation and Country Parks
ENB215	5775	CHAN Tanya	33	(7) Management of Construction and Demolition Materials
ENB216	4398	LUK Chung-hung	33	(7) Management of Construction and Demolition Materials
ENB217	4399	LUK Chung-hung	33	(7) Management of Construction and Demolition Materials
ENB218	7269	FAN Kwok-wai, Gary	39	(2) Sewage Services

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
ENB219	5155	TAM Man-ho, Jeremy	39	(2) Sewage Services
ENB220	5156	TAM Man-ho, Jeremy	39	(2) Sewage Services
ENB221	7218	CHAN Tanya	42	(1) Energy Supply; Electrical, Gas and Nuclear Safety (3) Energy Efficiency and Conservation, and Alternative Energy
ENB222	4098	YEUNG Alvin	42	(3) Energy Efficiency and Conservation, and Alternative Energy
ENB223	4717	CHAN Chi-chuen	44	(1) Waste
ENB224	3459	CHAN Hak-kan	44	(1) Waste
ENB225	3463	CHAN Hak-kan	44	(2) Air
ENB226	3465	CHAN Hak-kan	44	(1) Waste
ENB227	5487	CHAN Tanya	44	(1) Waste
ENB228	5488	CHAN Tanya	44	(1) Waste
ENB229	5489	CHAN Tanya	44	(1) Waste
ENB230	5501	CHAN Tanya	44	(1) Waste
ENB231	6022	CHAN Tanya	44	(0) -
ENB232	6258	CHAN Tanya	44	(1) Waste
ENB233	6259	CHAN Tanya	44	(1) Waste
ENB234	6260	CHAN Tanya	44	(1) Waste
ENB235	6261	CHAN Tanya	44	(1) Waste
ENB236	6262	CHAN Tanya	44	(1) Waste
ENB237	6263	CHAN Tanya	44	(1) Waste
ENB238	6264	CHAN Tanya	44	(6) Nature Conservation
ENB239	6265	CHAN Tanya	44	(6) Nature Conservation
ENB240	6266	CHAN Tanya	44	(2) Air
ENB241	6267	CHAN Tanya	44	(2) Air
ENB242	6268	CHAN Tanya	44	(2) Air
ENB243	6269	CHAN Tanya	44	(2) Air
ENB244	6270	CHAN Tanya	44	(2) Air
ENB245	6271	CHAN Tanya	44	(2) Air
ENB246	6272	CHAN Tanya	44	(2) Air
ENB247	6273	CHAN Tanya	44	(2) Air
ENB248	6274	CHAN Tanya	44	(2) Air
ENB249	6288	CHAN Tanya	44	(4) Water
ENB250	6289	CHAN Tanya	44	(1) Waste
ENB251	6297	CHAN Tanya	44	(1) Waste
ENB252	6299	CHAN Tanya	44	(2) Air
ENB253	6300	CHAN Tanya	44	(2) Air
ENB254	6301	CHAN Tanya	44	(1) Waste
ENB255	7188	CHAN Tanya	44	(2) Air

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
ENB256	3948	CHEUNG Chiu-hung, Fernando	44	(6) Nature Conservation
ENB257	4815	CHEUNG Chiu-hung, Fernando	44	(0) -
ENB258	5329	CHEUNG Chiu-hung, Fernando	44	(1) Waste
ENB259	6190	CHEUNG Chiu-hung, Fernando	44	(0) -
ENB260	6363	CHEUNG Chiu-hung, Fernando	44	(2) Air
ENB261	4231	CHOW Ho-ding, Holden	44	(1) Waste
ENB262	4995	CHU Hoi-dick	44	(1) Waste
ENB263	7199	CHU Hoi-dick	44	(2) Air
ENB264	4514	FAN Kwok-wai, Gary	44	(4) Water
ENB265	4548	FAN Kwok-wai, Gary	44	(1) Waste
ENB266	4549	FAN Kwok-wai, Gary	44	(2) Air
ENB267	4550	FAN Kwok-wai, Gary	44	(4) Water
ENB268	4557	FAN Kwok-wai, Gary	44	(3) Noise
ENB269	4561	FAN Kwok-wai, Gary	44	(6) Nature Conservation
ENB270	5172	FAN Kwok-wai, Gary	44	(1) Waste
ENB271	5173	FAN Kwok-wai, Gary	44	(2) Air
ENB272	3565	HO Chun-yin, Steven	44	(4) Water
ENB273	3582	HO Chun-yin, Steven	44	(1) Waste
ENB274	3591	HO Chun-yin, Steven	44	(4) Water (5) Environmental Assessment and Planning
ENB275	4357	HUI Chi-fung	44	(1) Waste
ENB276	4358	HUI Chi-fung	44	(1) Waste
ENB277	4360	HUI Chi-fung	44	(1) Waste
ENB278	4362	HUI Chi-fung	44	(2) Air

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
ENB279	4372	HUI Chi-fung	44	(2) Air
ENB280	4373	HUI Chi-fung	44	(2) Air
ENB281	4374	HUI Chi-fung	44	(2) Air
ENB282	4375	HUI Chi-fung	44	(4) Water
ENB283	4376	HUI Chi-fung	44	(4) Water
ENB284	4377	HUI Chi-fung	44	(6) Nature Conservation
ENB285	4378	HUI Chi-fung	44	(1) Waste
ENB286	4753	KWOK Ka-ki	44	(0) -
ENB287	4760	KWOK Ka-ki	44	(1) Waste
ENB288	4761	KWOK Ka-ki	44	(1) Waste
ENB289	5274	KWOK Ka-ki	44	(2) Air
ENB290	6120	KWOK Ka-ki	44	(1) Waste
ENB291	6123	KWOK Ka-ki	44	(1) Waste
ENB292	6124	KWOK Ka-ki	44	(1) Waste
ENB293	6125	KWOK Ka-ki	44	(1) Waste
ENB294	6128	KWOK Ka-ki	44	(2) Air
ENB295	6313	KWOK Ka-ki	44	(1) Waste
ENB296	6314	KWOK Ka-ki	44	(1) Waste
ENB297	6341	KWOK Ka-ki	44	(2) Air
ENB298	6475	KWOK Ka-ki	44	(0) -
ENB299	6476	KWOK Ka-ki	44	(0) -
ENB300	6477	KWOK Ka-ki	44	(0) -
ENB301	3856	KWOK Wing-hang, Dennis	44	(2) Air
ENB302	3857	KWOK Wing-hang, Dennis	44	(2) Air
ENB303	3858	KWOK Wing-hang, Dennis	44	(2) Air
ENB304	3862	KWOK Wing-hang, Dennis	44	(2) Air
ENB305	3863	KWOK Wing-hang, Dennis	44	(2) Air
ENB306	3864	KWOK Wing-hang, Dennis	44	(2) Air
ENB307	3865	KWOK Wing-hang, Dennis	44	(2) Air
ENB308	3866	KWOK Wing-hang, Dennis	44	(2) Air
ENB309	3867	KWOK Wing-hang, Dennis	44	(2) Air
ENB310	3431	LAM Kin-fung, Jeffrey	44	(1) Waste
ENB311	4418	LAU Ip-keung, Kenneth	44	(6) Nature Conservation
ENB312	4641	LEE Kok-long, Joseph	44	(1) Waste

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
ENB313	4642	LEE Kok-long, Joseph	44	(1) Waste
ENB314	4643	LEE Kok-long, Joseph	44	(1) Waste
ENB315	4644	LEE Kok-long, Joseph	44	(1) Waste
ENB316	4645	LEE Kok-long, Joseph	44	(1) Waste
ENB317	4646	LEE Kok-long, Joseph	44	(1) Waste
ENB318	4647	LEE Kok-long, Joseph	44	(1) Waste
ENB319	4648	LEE Kok-long, Joseph	44	(1) Waste
ENB320	4649	LEE Kok-long, Joseph	44	(1) Waste
ENB321	4650	LEE Kok-long, Joseph	44	(1) Waste
ENB322	4651	LEE Kok-long, Joseph	44	(2) Air
ENB323	4652	LEE Kok-long, Joseph	44	(2) Air
ENB324	3487	LEUNG Mei-fun, Priscilla	44	(1) Waste
ENB325	4059	QUAT Elizabeth	44	(1) Waste
ENB326	4060	QUAT Elizabeth	44	(1) Waste
ENB327	4061	QUAT Elizabeth	44	(1) Waste
ENB328	4062	QUAT Elizabeth	44	(1) Waste
ENB329	4063	QUAT Elizabeth	44	(1) Waste
ENB330	4064	QUAT Elizabeth	44	(1) Waste
ENB331	4065	QUAT Elizabeth	44	(1) Waste
ENB332	4066	QUAT Elizabeth	44	(1) Waste
ENB333	4067	QUAT Elizabeth	44	(1) Waste
ENB334	4068	QUAT Elizabeth	44	(1) Waste
ENB335	4069	QUAT Elizabeth	44	(1) Waste
ENB336	4070	QUAT Elizabeth	44	(1) Waste
ENB337	4071	QUAT Elizabeth	44	(1) Waste
ENB338	4914	QUAT Elizabeth	44	(1) Waste
ENB339	4915	QUAT Elizabeth	44	(1) Waste
ENB340	4916	QUAT Elizabeth	44	(3) Noise
ENB341	3353	SHEK Lai-him, Abraham	44	(4) Water
ENB342	4105	YEUNG Alvin	44	(1) Waste
ENB343	3577	HO Chun-yin, Steven	100	(3) Local Services
ENB344	5085	CHAN Tanya	137	(0) -

Reply Serial No.	Question Serial No.	Name of Member	Head	Programme
ENB345	6275	CHAN Tanya	137	(2) Power
ENB346	6276	CHAN Tanya	137	(2) Power
ENB347	6277	CHAN Tanya	137	(2) Power
ENB348	6278	CHAN Tanya	137	(2) Power
ENB349	6279	CHAN Tanya	137	(2) Power
ENB350	4827	CHEUNG Chiu-hung, Fernando	137	(2) Power
ENB351	4828	CHEUNG Chiu-hung, Fernando	137	(1) Director of Bureau's Office
ENB352	4829	CHEUNG Chiu-hung, Fernando	137	(1) Director of Bureau's Office
ENB353	4830	CHEUNG Chiu-hung, Fernando	137	(1) Director of Bureau's Office
ENB354	4831	CHEUNG Chiu-hung, Fernando	137	(2) Power
ENB355	4832	CHEUNG Chiu-hung, Fernando	137	(3) Sustainable Development
ENB356	4230	CHOW Ho-ding, Holden	137	(2) Power
ENB357	4361	HUI Chi-fung	137	(2) Power
ENB358	4363	HUI Chi-fung	137	(2) Power
ENB359	4380	HUI Chi-fung	137	(2) Power
ENB360	4381	HUI Chi-fung	137	(2) Power
ENB361	6495	KWOK Ka-ki	137	(0) -
ENB362	7242	KWONG Chun-yu	137	(0) -
ENB363	3476	LEUNG Mei-fun, Priscilla	137	(2) Power
ENB364	3653	MA Fung-kwok	137	(1) Director of Bureau's Office
ENB365	4058	QUAT Elizabeth	137	(2) Power

CONTROLLING OFFICER'S REPLY**ENB001****(Question Serial No. 1379)**Head: (22) Agriculture, Fisheries and Conservation DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) Nature Conservation and Country ParksControlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)Director of Bureau: Secretary for the EnvironmentQuestion:

Over the past 3 years, regarding endangered species in Hong Kong, would the Government inform this Committee of the following:

- (a) What were the manpower and expenditures involved?
- (b) What were the numbers of prosecutions instituted under the Protection of Endangered Species of Animals and Plants Ordinance? What were the penalties imposed?
- (c) What were the numbers of illegal trading on the internet?
- (d) How many endangered animals were seized each year? What were their types?
- (e) What were the conditions of the animals seized in various control points?
- (f) What were the numbers of animals confiscated and handed to non-profit making organisations in Hong Kong for conservation?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 23)Reply:

- (a) The expenditure and manpower of the Agriculture, Fisheries and Conservation Department (AFCD) involved in controlling international trade in endangered species and curbing illegal trade in endangered species in Hong Kong over the past 3 years are tabulated below:

Financial year	2016-17	2017-18	2018-19 (revised estimate)
Expenditure (\$ million)	36.2	42.5	47.5

Manpower (number of staff)	51	55	57
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- (b) The number of prosecutions instituted under the Protection of Endangered Species of Animals and Plants Ordinance and the corresponding penalties imposed over the past 3 years are tabulated below:

Calendar year	2016	2017	2018
Number of prosecutions	154	189	221
Maximum penalty (imprisonment / months)	8	3	8
Minimum penalty (fine / \$)	100	400	400

- (c) The number of cases involving illegal selling of endangered species through internet platforms and the quantity of live endangered animal species seized over the past 3 years are tabulated below:

Calendar year	2016	2017	2018
Number of cases	12	19	9
Number of individuals	22	45	24

- (d) The number of live endangered animals seized over the past 3 years is tabulated below:

Calendar year	2016	2017	2018
Number of individuals	2 336	2 812	4 140

The most commonly seized animals include tortoises, lizards, birds, fish and stony corals.

- (e) The number of live endangered animals seized at various control points over the past 3 years is tabulated below:

Calendar year/ Control point	2016	2017	2018
Hong Kong International Airport	1 885	2 488	2 915
China Ferry Terminal	--	6	--
Sea boundary	46	10	--
Lo Wu Control Point	6	21	6
Lok Ma Chau Control Point	94	--	14
Lok Ma Chau Spurline Control Point	25	--	15
Man Kam To Control Point	144	10	916
Shenzhen Bay Control Point	1	8	193

- (f) In 2016, 2017 and 2018, AFCD donated 172, 733 and 241 seized live endangered species respectively to local institutes/organisations for conservation purposes and/or temporary keeping.

- End -

CONTROLLING OFFICER'S REPLY

ENB002

(Question Serial No. 3188)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the implementation of the first Biodiversity Strategy and Action Plan for Hong Kong by the Agriculture, Fisheries and Conservation Department:

What are the amount of resources and manpower to be deployed in the work related to the Biodiversity Strategy and Action Plan this year? What are the specific details of the Plan and the timeframe for its implementation?

Asked by: Hon CHAN Han-pan (LegCo internal reference no.: 41)

Reply:

The Hong Kong Biodiversity Strategy and Action Plan (BSAP) 2016-2021 is a 5-year plan setting out the strategy and action plan for conserving biodiversity and supporting sustainable development in Hong Kong. The 67 specific actions under BSAP are grouped under 4 major areas: (1) enhancing the existing conservation measures; (2) mainstreaming biodiversity in relevant policies, programmes, works and projects by public and private sectors; (3) improving the knowledge on biodiversity; and (4) enhancing public awareness of and participation in biodiversity. Since the launch of BSAP in December 2016, the actions have been implemented progressively in accordance with the planned timetable set out in the BSAP document.

The Agriculture, Fisheries and Conservation Department has earmarked \$50 million and 33 staff for the implementation of BSAP in 2019-20 in accordance with the planned timetable. Major initiatives include enhancing the management of country parks and the Ramsar site; designating new country and marine parks; formulating and implementing species action plans; monitoring and studying priority species and habitats; compiling the List of Threatened Species for Hong Kong; developing a biodiversity information hub for sharing relevant data and knowledge; as well as promoting biodiversity awareness among the public and stakeholders through further publicity and education activities.

- End -

CONTROLLING OFFICER'S REPLY

ENB003

(Question Serial No. 2951)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the Department's work on the "provision of nature conservation advice on development proposals, planning studies and environmental impact assessments":

- (a) Has the Department provided nature conservation advice to the relevant government departments on the development and reclamation plans of the East Lantau Metropolis? If yes, what are the details of the relevant advice? If not, has the Government sought nature conservation advice from the Department on the development and reclamation plans of the East Lantau Metropolis?
- (b) According to the Department, the Sunshine Island near the site of the development and reclamation plans of the East Lantau Metropolis was listed as a Site of Special Scientific Interest (SSSI) in 2015. The reason for listing the Sunshine Island as an SSSI was to protect the Bogadek's burrowing lizards (*Dibamus bogadeki*). According to the Department, the Bogadek's burrowing lizards are a reptile unique to Hong Kong, with their appearance only recorded on 3 islands (i.e. Sunshine Island, Shek Kwu Chau and Hei Ling Chau). In this connection, has the Department conducted any research or study on the impacts of the development and reclamation plans of the East Lantau Metropolis on the ecology, sustainability, etc., of the Bogadek's burrowing lizards? If yes, what are the details? If not, what are the reasons?
- (c) According to the Department, "the listing of SSSI is primarily an administrative device to alert government departments about the scientific importance of such sites, and that due consideration should be given to conservation when developments at or close to these sites are proposed". As far as the Department knows, have the relevant government departments "given due consideration to conservation", in particular the impacts on the Bogadek's burrowing lizards, when the preliminary concept of the development and reclamation plans of the East Lantau Metropolis was proposed?

- (d) What were details in the estimated expenditure and manpower involved in the Department's work on the "provision of nature conservation advice on development proposals, planning studies and environmental impact assessments" over the past 3 years and those in the coming year? Will the Department's work in the aforesaid aspect include the development and reclamation plans of the East Lantau Metropolis? If yes, what are the details of the relevant work?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 41)

Reply:

- (a) During the Government's formulation of the "Sustainable Lantau Blueprint", the Agriculture, Fisheries and Conservation Department (AFCD) had been providing advice from the nature conservation perspective, including potential impact(s) arising from the proposed development under the Blueprint (e.g. the East Lantau Metropolis) on important habitats and species (particularly sites and species of recognised conservation importance) as well as advice on various conservation measures concerning South Lantau.
- (b) The Bogadek's Burrowing Lizard (*Dibamus bogadeki*) is endemic to Hong Kong. It has only been recorded on Sunshine Island, Shek Kwu Chau and Hei Ling Chau. In order to enhance the protection of the Bogadek's Burrowing Lizard, Sunshine Island was listed as a Site of Special Scientific Interest (SSSI) in 2015, and the species' status on the island is regularly monitored by AFCD. AFCD will, in accordance with established procedures, examine the potential impacts of the development and reclamation proposals of the East Lantau Metropolis on the SSSI of Sunshine Island and make appropriate recommendations when the relevant departments put forward the detailed proposals and research materials in the future.
- (c) The "Sustainable Lantau Blueprint" promulgated by the Government in 2017 has recognised the significance of conserving the important species on Lantau and its surrounding waters (such as the Bogadek's Burrowing Lizard). AFCD notes that the relevant departments will conduct detailed planning and engineering studies of the proposed artificial island near Kau Yi Chau as well as an environmental impact assessment (EIA) on the development proposals formulated in accordance with established procedures.
- (d) AFCD is responsible for conserving local flora, fauna and natural habitats through offering conservation advice on development proposals, planning strategies and EIAs. These include:
- reviewing EIA studies;
 - enforcing the Environmental Permit (issued under the EIA Ordinance (Cap. 499)) conditions related to nature conservation;
 - carrying out compliance monitoring, impact monitoring and effectiveness monitoring related to ecological assessments;
 - commenting on planning applications, development plans (e.g. layout plans, outline zoning plans), site formation plans, lands matters and development proposals in respect of nature conservation;
 - commenting on strategic planning and transport studies; and

- vetting tree felling applications related to developments.

In the coming year, AFCD will continue to offer conservation advice on the various aspects above, including recommendations related to the development and reclamation proposals of the East Lantau Metropolis.

Over the past 3 years and in the coming year, AFCD's manpower and expenditure involved in the above work are as follows:

Financial year	Expenditure (\$ million)	Manpower (Number of staff)
2016-17	23.9	38
2017-18	25.6	38
2018-19 (revised estimate)	27.7	38
2019-20 (estimate)	29.0	41

- End -

CONTROLLING OFFICER'S REPLY

ENB004

(Question Serial No. 3101)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding country park enclaves (enclaves), would the Government inform this Committee of the following:

- (a) How many enclaves which are not covered by statutory plans have been assessed on their suitability to be incorporated into country parks? What is the timeframe for such incorporation?
- (b) How many enclaves which are not covered by statutory plans have not been assessed on their suitability to be incorporated into country parks? What is the timeframe for completing the assessment?
- (c) What were the expenditures involved in the improvement works on the enclaves incorporated into country parks over the past 6 years?

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1090)

Reply:

- (a) In accordance with the provisions of the Country Parks Ordinance (Cap. 208) (the Ordinance), the Agriculture, Fisheries and Conservation Department (AFCD) has incorporated 6 enclaves into the respective country parks. The first batch of enclaves in Sai Wan, Kam Shan and Yuen Tun were incorporated on 30 December 2013 while the second batch of enclaves in Fan Kei Tok, Sai Lau Kong and the site near Nam Shan were incorporated on 1 December 2017.
- (b) Currently, there are 19 enclaves that have not been incorporated into country parks or covered by statutory plans. AFCD is conducting assessments on the suitability of these enclaves for incorporation into country parks, and it will propose the incorporation of suitable enclaves into country parks in accordance with the statutory procedures as stipulated under the Ordinance.

- (c) The improvement works on the enclaves that have been incorporated into country parks form part of AFCD's regular work for country parks. There is no breakdown of the expenditure involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB005

(Question Serial No. 1158)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding marine parks and marine reserves, please advise on the following:

- (a) Please set out the names, locations, sizes and dates of establishment of the marine parks and marine reserves currently established or to be established as well as the sizes of the core areas or restricted zones. Please also provide the boundary maps of these marine parks and marine reserves (including the core areas or restricted zones).
- (b) Please set out the numbers of fishing permits issued to various types of fishing vessels in each marine park and marine reserve, in the first year after the establishment of the marine parks and marine reserves and over the past 3 years (2016-17 to 2018-19).
- (c) What were the numbers of operations and the effectiveness of the enforcement operations against illegal fishing activities (including capture, angling as well as any other method) in marine parks over the past 3 years (2016-17 to 2018-19)? What were the penalties and fines imposed?
- (d) What were the expenditures and manpower involved in the enforcement operations against illegal fishing activities in marine parks over the past 3 years (2016-17 to 2018-19)?
- (e) What were the numbers of patrol vessels deployed by the Government to combat illegal fishing activities in marine parks, the area(s) patrolled, and the numbers of patrols conducted, over the past 3 years (2016-17 to 2018-19)?
- (f) What is the progress of the review of fisheries management measures in marine parks?
- (g) There have been media reports on members of the public or visitors trespassing on marine parks for illegal fishing and conducting leisure activities. What educational

and publicity measures has the Government put in place to promote the matters to note or activities subject to regulation in marine parks?

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 11)

Reply:

- (a) The names, locations, sizes, core area sizes and dates of designation of existing marine parks and marine reserve are tabulated below:

Name of existing marine park/ marine reserve	Location	Size (hectares)		Designation date
		Total	Core area	
Cape D'Aguilar Marine Reserve	Waters at the southeastern tip of Hong Kong Island	20	0	July 1996
Hoi Ha Wan Marine Park	Sheltered bay located north of the Sai Kung West Country Park	260	0	July 1996
Yan Chau Tong Marine Park	Northeast coast of Plover Cove Country Park	680	0	July 1996
Sha Chau and Lung Kwu Chau Marine Park	Waters enclosing the islands of Sha Chau and Lung Kwu Chau on the western side of Hong Kong	1 200	0	November 1996
Tung Ping Chau Marine Park	Waters enclosing the small island Ping Chau northeastern waters of Hong Kong	270	7.4	November 2001
The Brothers Marine Park	Waters in the vicinity of The Brothers in northern Lantau	970	80	December 2016

The names, locations, sizes, core area sizes and tentative designation time of the proposed marine parks are as follows:

Name of proposed marine park	Location	Size (hectares)		Tentative designation time
		Total	Core area	
Southwest Lantau Marine Park	Waters in the vicinity of Fan Lau in southwest Lantau	~ 650	0	2019
South Lantau Marine Park (combining the proposed Soko Islands Marine Park and the proposed marine park for Integrated Waste Management Facilities as a single marine park)	Waters in the vicinity of Soko Islands in southern Lantau	~ 2 067	~145	2020
Proposed Marine Park for the Three-Runway System	Waters around the airport in northern Lantau	~ 2 400	To be determined	2024

The boundaries (and core areas) of the existing and proposed marine parks and marine reserve are shown in the map at the **Annex**.

(b) The requested information is tabulated below:

Name of marine park/ marine reserve	Number of permits issued for the respective marine parks/marine reserve			
	1 st year	2016-17	2017-18	2018-19
Cape D'Aguiar Marine Reserve	0	0	0	0
Hoi Ha Wan (HHW) and Yan Chau Tong (YCT) ⁽ⁱ⁾	409	251	243	250
Sha Chau and Lung Kwu Chau (SCLKC)	208	80	81	81
Tung Ping Chau (TPC) ⁽ⁱⁱ⁾	280	202	197	200
The Brothers (BROS)	472	-	472	474
Total ⁽ⁱⁱⁱ⁾	---	350	737	744

Notes:

(i) Some fishing permits cover TPC, YCT and/or HHW (see Note (ii) below).

(ii) Some fishing permits issued for TPC also cover YCT/HHW.

(iii) The row "Total" gives the total number of fishing permits issued for the marine parks in a particular year. As some permits cover more than 1 marine park, the figure for a particular year in the row "Total" does not equal to the sum of the numbers of fishing permits issued for the marine parks each year.

- (c) The number of prosecutions against illegal fishing activities in marine parks over the past 3 years and the penalties imposed are tabulated below:

Financial year	Number of cases	Total fine (\$)
2016-17	5	9,500
2017-18	6	7,300
2018-19 (up to February 2019)	8 (including 5 cases in the progress of prosecution)	3,300

- (d) The expenditure and manpower involved in the management of marine parks and marine reserve, including enforcement against illegal fishing, over the past 3 years are tabulated below:

Financial year	Expenditure (\$ million)	Manpower (Number of staff)
2016-17	21.3	39
2017-18	23.2	44
2018-19 (revised estimate)	25.8	51

- (e) Over the past 3 years, 11 patrol vessels have been deployed by the Agriculture, Fisheries and Conservation Department (AFCD) to conduct patrols in the marine parks and marine reserve and surrounding waters to combat illegal fishing activities. As at the end of 2018, the number of patrol vessels has reduced to 8 as a few of the aged vessels are out of service and pending replacement. The Marine Police and their patrol vessels have also rendered assistance in law enforcement within marine parks and marine reserve upon our request.

The areas patrolled included existing and proposed marine parks and marine reserve. The numbers of patrols conducted over the past 3 years are tabulated below:

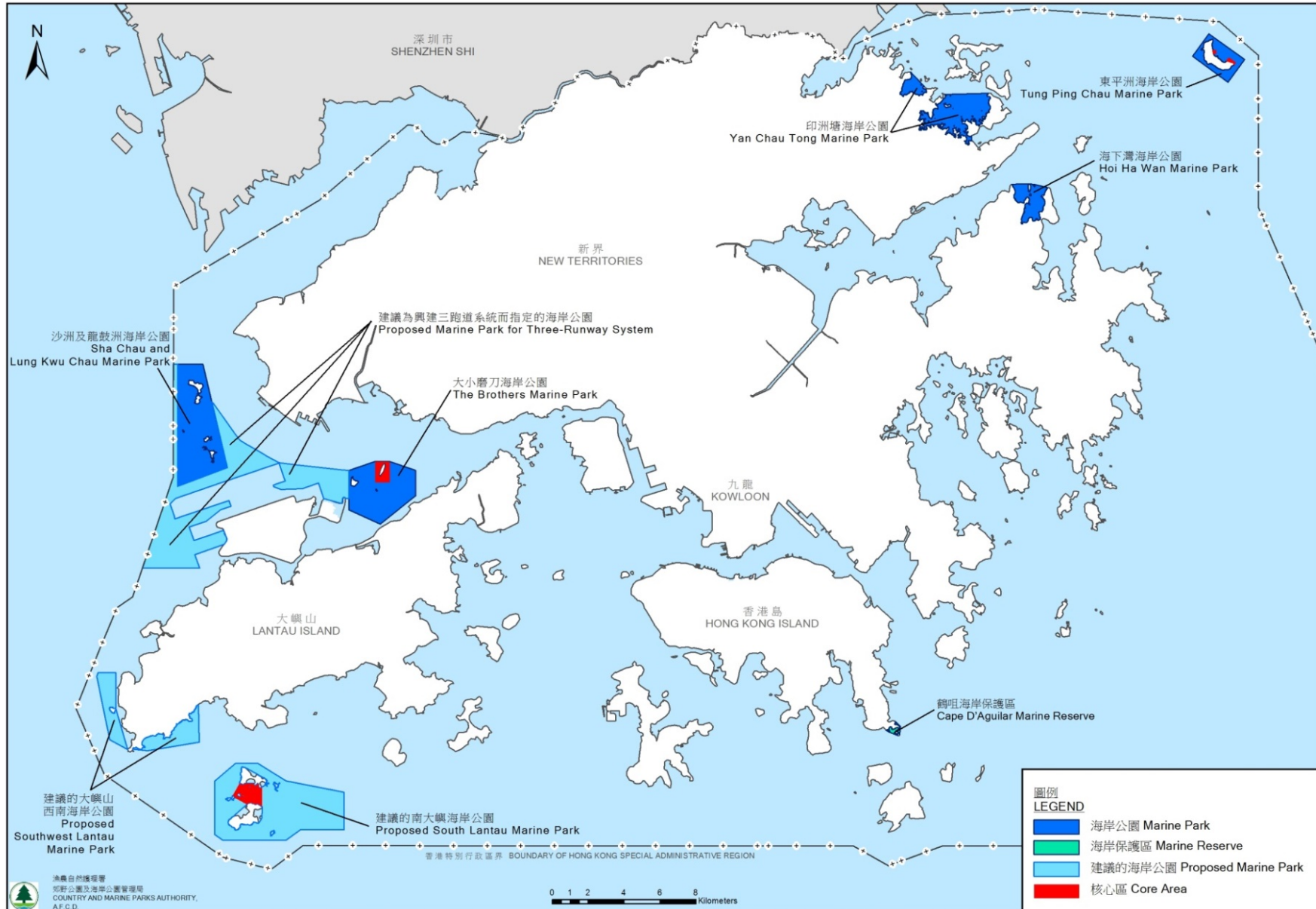
Financial year	Number of patrols
2016-17	3 204
2017-18	4 084
2018-19 (up to February 2019)	3 260

- (f) AFCD commissioned a consultancy study in March 2017 to review the fisheries management measures for marine parks with a view to addressing fishermen's concerns and promoting the sustainable development of the fisheries industry in Hong Kong without compromising the conservation objectives of marine parks. AFCD is currently examining the implementation details of the strategy proposed in the study, including legislative amendments, management arrangements as well as resource requirements, and plans to consult major fishermen representatives and the affected fishing permit holders later this year.

- (g) To promote public understanding of the importance of marine conservation and solicit their support to protect our marine parks and marine reserve, AFCD organises a variety of education activities targeting both students and the general public. Activities held included guided tours, field studies, public seminars, workshops and exhibitions. AFCD also produces leaflets, posters, videos and booklets to educate the public about our marine environment and the importance of protecting it. Apart from regular patrols and law enforcement, our marine park wardens and marine park ambassadors will distribute education materials and give advice to visitors to marine parks and marine reserve on the codes and regulations for visiting marine parks and marine reserve.

- End -

Annex



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CONTROLLING OFFICER'S REPLY

ENB006

(Question Serial No. 1161)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the conservation and management of the wetland, please advise on the following:

- (a) Over each of the past 3 years (2016-17 to 2018-19), what were the respective expenditures incurred by the Government on protecting birds, promoting the development of aquaculture fisheries and agriculture, and assisting such industries in preventing birds from foraging for cultured fish products and crops, together with the details and effectiveness of such efforts?
- (b) Over the past 3 years (2016-17 to 2018-19), what were the numbers of complaints received by the Government about alleged unlawful bird-proof measures taken by fish farmers and farmers, the average and longest time taken to handle such cases, the numbers of prosecutions instituted against the contravention of the Wild Animal Protection Ordinance (Cap. 170), and the numbers of convictions thereof?
- (c) Over the past 3 years (2016-17 to 2018-19), has the Government made any assessment on the expenditures incurred by fish farmers and farmers on taking bird-proof measures, and their financial losses due to birds foraging for their cultured fish products and crops?
- (d) Over the past 3 years (2016-17 to 2018-19), how did the Government compensate fish farmers and farmers for their expenditures and financial losses as mentioned in item (c)? What measures have been put in place by the Government to assist them in reducing such expenditures and financial losses?
- (e) The Environment Bureau rolled out the Biodiversity Strategy and Action Plan 2016-2021 in December 2016, and commissioned professional consultant(s) to collect the latest information on cormorants preying on commercial fish ponds, review the effectiveness of the current preventive measures and develop methods to prevent cormorants from preying on fish ponds. What are the final findings?

- (f) Under the conservation and management of the Mai Po Inner Deep Bay Ramsar Site, what are the differences between the regulation imposed by the Government on fish ponds and those outside the Mai Po Inner Deep Bay Ramsar Site? Does the Government know whether the Ramsar Sites in other countries or regions also comprise of both government land and private land?
- (g) Over the past 3 years (2016-17 to 2018-19), what were the amounts of subventions granted to the management agreement projects under the Environment and Conservation Fund? What were the numbers of participating fish farmers as well as the figures and percentages of the fish ponds taken up to the total area of the Ramsar Site?

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 17)

Reply:

- (a) to (d) The Agriculture, Fisheries and Conservation Department (AFCD) actively works to protect wild animals by different means, including conservation management of habitats in the Ramsar Site and other areas, territory-wide law enforcement, public education, as well as animal rescue, studies and research, etc., while bird conservation is also included in all these aspects of work. According to the Wild Animals Protection Ordinance (Cap. 170) (the Ordinance), no person shall, except in accordance with a special permit, wilfully disturb or hunt any protected wild animal, including all wild birds. Over the past 3 years (up to 28 January 2019), AFCD has prosecuted about 210 cases for contravening the Ordinance and a total of 201 cases were convicted, including 1 case involving the use of illegal bird prevention measures in farmland, subjected to a fine of \$1,000. During the same period, AFCD received 13 complaints about suspected use of illegal bird prevention measures by farmers or fish pond operators. It usually takes 3 to 6 months to process these cases.

AFCD understands the concern of farmers and fish pond operators over their loss due to bird predation in farmland and fish ponds. AFCD aims to strike a balance between supporting the agriculture and fisheries industries as well as bird conservation, and assists farmers and fish pond operators in taking appropriate measures to reduce bird predation in farmland and fish ponds without causing harm to birds. Regarding farmers, AFCD provides technical advice to them on bird prevention, while farmers who are interested in installing bird preventive netting or other measures can apply for low-interest loans from loan funds administered by AFCD, or purchase the necessary materials for self-installation with the Farm Improvement Scheme grants under the Sustainable Agricultural Development Fund (SADF). Regarding fish pond operators, AFCD regularly organises talks and workshops on methods of prevention of bird predation, such as pond wiring, hanging of reflective materials, etc., to reduce loss of fish produce. Fish pond operators can also apply for low-interest loans should they need any financial assistance. The Sustainable Fisheries Development Fund

(SFDF) may also provide financial support to fish pond operators for purchasing necessary materials under its Equipment Improvement Project.

AFCD has published 2 pamphlets on the methods of preventing bird predation in farmland and fish ponds for the reference of farmers and fish pond operators respectively. According to AFCD's observations, many farmers and fish pond operators have adopted AFCD's recommendations to reduce the risk of bird predation in farmland and fish ponds. Nonetheless, AFCD does not have the information about the cost of bird prevention measures used by farmers and fish pond operators. On the other hand, the loss due to bird predation is subject to many factors, including crops farmed/species of fish, location of the farmland/fish pond, and the bird prevention measures implemented on the site, and hence cannot be deduced conclusively. AFCD will continue to carry out the above work to facilitate farmers and fish pond operators to reduce their loss due to bird predation in farmland and fish ponds.

In addition, AFCD has been supporting and promoting the overall development of the agriculture and fisheries industries through various measures, including providing technical support to the industries, promoting local agricultural and fishery produces, implementing SFDF and SADF with a view to promoting the sustainable development of industries, as well as implementing various supportive measures under the New Agriculture Policy. Breakdown of the expenditure on promoting aquaculture fisheries and agricultural development on the wetland is not available.

- (e) According to the Hong Kong Biodiversity Strategy and Action Plan 2016-2021, AFCD has commissioned a specialist consultant to collect updated information on the issue of cormorant predation in commercial fish ponds, review the effectiveness of the existing preventive measures, and explore measures to prevent cormorant predation in fish ponds in late 2016. Prior to the commencement of the study, AFCD had communicated with representatives of the aquaculture industry and they welcomed the study. A field trial on the use of the recommended measure was also completed in early 2018. As shown in the findings, pond wiring with the density set at 40 to 70 wires/ha is effective in preventing cormorant predation. AFCD also assists farmers and fishermen with respect to bird predation issues.
- (f) According to the Ramsar Site Management Plan implemented by AFCD, it is recommended that fishponds within the Mai Po Inner Deep Bay Ramsar Site (the Ramsar Site) be maintained and operated in an ecologically sustainable manner. One of the measures implemented to achieve this management objective is the Management Agreement projects funded by the Environment and Conservation Fund (ECF), under which participating fishpond operators conduct eco-friendly practices such as draining down their fish ponds after harvesting to facilitate bird feeding. Currently, the majority of fishponds at and around the Ramsar Site are engaged in the Management Agreement projects. According to the information from the Ramsar Convention (www.ramsar.org), many Ramsar Sites around the world comprise both government land and private land.

- (g) 2 Management Agreement projects with funding from ECF were conducted from March 2015 to February 2017 and from March 2017 to February 2019 in the Ramsar Site and Deep Bay Wetland outside Ramsar Site respectively. Details are tabulated below:

Project period	March 2015 to February 2017		March 2017 to February 2019	
Reporting period	March 2015 to February 2016	March 2016 to February 2017	March 2017 to February 2018	March to December 2018
Ramsar Site				
Approved budget (for 2 years) (\$)	6,614,888		7,034,532	
Number of fishpond operators engaged	66	65	65	67
Area of fishponds engaged (hectare)	323	286	283	286
Total area of eligible fishponds (hectare)*	328	290	290	290
Percentage of area of fishponds engaged in total area of eligible fishponds (%)	98	98	98	98
Deep Bay Wetland outside Ramsar Site				
Approved budget (for 2 years) (\$)	6,606,968		7,659,992	
Number of fishpond operators engaged	90	91	87	88
Area of fishponds engaged (ha)	367	334	326	327

Project period	March 2015 to February 2017		March 2017 to February 2019		
	Reporting period	March 2015 to February 2016	March 2016 to February 2017	March 2017 to February 2018	March to December 2018
Total area of eligible fishponds (hectare)*	405	371	370	370	
Percentage of area of fishponds engaged in total area of eligible fishponds (%)	91	90	88	88	

* Eligible fishponds are those registered under AFCD's voluntary registration scheme.

- End -

CONTROLLING OFFICER'S REPLY

ENB007

(Question Serial No. 1172)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding wild pigs, please advise on the following:

- (a) Has the Government estimated the current population of wild pigs in Hong Kong?
- (b) What were the numbers of help-seeking cases in relation to the appearance of wild pigs received over the past 3 years (2016-17 to 2018-19)?
- (c) What were the numbers of operations conducted under the pilot programme on the contraception and relocation of wild pigs, the numbers of wild pigs captured, in which the numbers of female wild pigs injected with contraceptive vaccines and were surgically sterilised as well as the numbers of wild pigs relocated to the countryside far away from residential areas over the past 2 years (2017-18 to 2018-19)?
- (d) What were the expenditures and manpower dedicated to the work in relation to the aforesaid pilot programme over the past 3 years (2016-17 to 2018-19)?
- (e) What were the numbers of arrests made and prosecutions instituted in relation to the illegal feeding of wild pigs over the past 3 years (2016-17 to 2018-19)? What were the average, maximum and minimum penalties imposed respectively?

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 28)

Reply:

- (a) Wild pigs are generally solitary or live in small groups, secretive, widely distributed, and have extensive home range. Currently, the Agriculture, Fisheries and Conservation Department (AFCD) does not have the statistics on the population of wild pigs in Hong Kong, but it is devising methods to make an estimate.

- (b) The number of complaints about wild pigs received by AFCD over the past 3 years is as follows:

Financial year	Number of cases
2016-17	643
2017-18	787
2018-19 (as of January 2019)	819

- (c) During October 2017 to February 2019, AFCD arranged 42 wild pig contraception/relocation operations, captured 155 wild pigs, administered 55 wild pigs with contraceptive vaccines, surgically sterilised 15 wild pigs and relocated 111 wild pigs to locations in the countryside away from human settlements.
- (d) Since 2017-18, there has been a dedicated team for the management of wild pigs with 6 members. In addition, AFCD has temporarily deployed 8 staff from other teams to render assistance since March 2019. Furthermore, AFCD will deploy additional staff for each wild pig contraception/relocation operation.

AFCD has tried implementing the pilot Capture and Contraception/Relocation Programme (CCRP) to handle the nuisance caused by wild pigs in urban areas since late 2017. The expenditures on the implementation of the Pilot Programme over the past 2 years are tabulated below:

Financial year	Expenditure on the implementation of the pilot CCRP for wild pigs (\$ million)	Total expenditure on wild pig management (\$ million)
2017-18	3.8	6.8
2018-19 (revised estimate)	6.4	10.3

- (e) Kam Shan, Lion Rock and Shing Mun Country Parks, part of Tai Mo Shan Country Park, Tai Po Kau Nature Reserve, a section of Tai Po Road along Caldecott Road and Piper's Hill section of Tai Po Road are specified places under the Wild Animals Protection Ordinance (Cap. 170) at which the feeding of any wild animals are prohibited (feeding ban area). Persons feeding wild animals in the feeding ban area are liable to a maximum fine of \$10,000. AFCD arranges regular patrol at the feeding ban area and will take prosecution actions against anyone who has violated the law and fed wild animals, subject to sufficient evidence. AFCD will, from time to time, review the patrolling arrangements at the feeding ban area as appropriate, including the deployment of additional manpower to conduct enforcement operations at nights and on public holidays. The information on the prosecutions against illegal feeding of wild animals (including wild pigs) over the past 3 years is as follows:

Financial year	2016-17	2017-18	2018-19 (as of February 2019)
Number of patrols	485	564	492
Number of prosecutions against illegal feeding of wild animals (including wild pigs)	74	40	20
Number of successful prosecutions against illegal feeding of wild animals (including wild pigs) ^	52	58	15
Average fine (\$)	800	1,000	1,000

^ Some of the prosecutions instituted in the latter part of the financial year might have to be processed in the next financial year.

- End -

CONTROLLING OFFICER'S REPLY

ENB008

(Question Serial No. 1174)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (700) General non-recurrent

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the marine sanctuary, please advise on the following:

- (a) What are the details of the marine sanctuary?
- (b) What are the details of the revised estimated expenditure and the work involved?

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 30)

Reply:

- (a) The “marine sanctuary” under Sub-head 700 refers to the proposal of setting up a sanctuary in the waters surrounding Sha Chau and Lung Kwu Chau for conserving dolphins in the 1990s. The Sha Chau and Lung Kwu Chau Marine Park (SCLKCMP) was subsequently designated by the Government in 1996. The approved commitment of “Item 536 Setting up a marine sanctuary in the Sha Chau and Lung Kwu Chau area” under Sub-head 700 was created in 1996-97 to cater for the capital expenditure required for the establishment and management of SCLKCMP, such as the installation of marker buoys, purchase of patrol vessels, monitoring of fish resources and water quality within SCLKCMP.
- (b) The 2018-19 revised estimate for the Item is \$50,000 for conducting regular water quality monitoring in SCLKCMP.

- End -

CONTROLLING OFFICER'S REPLY

ENB009

(Question Serial No. 1101)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

There has been a surge in the nuisance caused by wild pigs and wild monkeys in recent years, with the number of cases hitting a record high of 738 in 2017. The primary cause is that they are fed by kind-hearted members of the public. The existing Wild Animals Protection Ordinance clearly stipulates that it is an offence to feed wild animals in the Lion Rock Country Park, the Kam Shan Country Park, the Shing Mun Country Park, the Tai Mo Shan Country Park (Part of) and the Tai Po Kau Special Area. In this connection, would the Government inform this Committee:

- (a) What were the manpower and expenditures involved in the public education and publicity for the prohibition of feeding wild animals over the past 3 years?
- (b) What were the manpower and expenditures involved in handling the aforesaid work over the past 3 years?
- (c) What were the numbers of (i) patrols conducted and (ii) prosecutions instituted by the Agriculture, Fisheries and Conservation Department to enforce the prohibition of feeding wild monkeys each year over the past 3 years? What were the numbers of persons convicted each year and their penalties in general?
- (d) The current legislation regulates the act of feeding wild animals, albeit with low effectiveness. Will the Government re-examine the current legislation or step up public education in order to control the population of wild monkeys and wild pigs in Hong Kong? If yes, what are the details? If not, what are the reasons?

Asked by: Hon HO Kwan-yiu, Junius (LegCo internal reference no.: 22)

Reply:

- (a) The expenditure incurred by the Agriculture, Fisheries and Conservation Department (AFCD) in public education and publicity on the prohibition of feeding wild animals such as monkeys and wild pigs over the past 3 years is as follows:

Financial year	Expenditure (\$ million)
2016-17	0.6
2017-18	2.2
2018-19 (revised estimate)	2.2

As the relevant work forms part of AFCD's work on handling the nuisance caused by wild animals (including monkeys, wild pigs, etc.) (see paragraph (b) below), there is no separate breakdown on the manpower involved in the aforesaid work.

- (b) The expenditure and manpower involved in AFCD's handling of the nuisance caused by monkeys and wild pigs over the past 3 years are tabulated below:

Financial year	Expenditure (\$ million)		Manpower	
	Monkey nuisance	Wild pig nuisance	Monkey nuisance	Wild pig nuisance
2016-17	4.2	2.4	12*	
2017-18	5.2	6.8	12	6
2018-19 (revised estimate)	5.6	10.3	12	14

*The nuisance caused by monkeys and wild pigs was handled by the same group of staff before 2017.

- (c) Kam Shan, Lion Rock and Shing Mun Country Parks, part of Tai Mo Shan Country Park, Tai Po Kau Nature Reserve, a section of Tai Po Road along Caldecott Road and Piper's Hill section of Tai Po Road are specified places under the Wild Animals Protection Ordinance (Cap. 170) at which the feeding of any wild animals are prohibited (feeding ban area). Persons feeding wild animals in the feeding ban area are liable to a maximum fine of \$10,000. AFCD arranges regular patrol at the feeding ban area and will take prosecution actions against anyone who has violated the law and fed wild animals, subject to sufficient evidence. AFCD will, from time to time, review the patrolling arrangements at the feeding ban area as appropriate, including the deployment of additional manpower to conduct enforcement operations at nights and on public holidays. The information on the prosecutions against illegal feeding of wild animals (including monkeys) over the past 3 years is as follows:

Financial year	2016-17	2017-18	2018-19 (as of February 2019)
Number of patrols	485	564	492
Number of prosecutions against illegal feeding of wild animals (including monkeys)	74	40	20
Number of successful prosecutions against illegal feeding of wild animals (including monkeys) [^]	52	58	15
Average fine (\$)	800	1,000	1,000

[^] Some of the prosecutions instituted in the latter part of the financial year might have to be processed in the next financial year.

- (d) In order to alleviate the nuisance caused by wild pigs in residential areas more effectively, AFCD has conducted a comprehensive review on the strategy for the management of wild pigs and taken measures in a multi-pronged approach. Such measures include managing wild pig nuisance, reducing food attraction for wild pigs, educating the public to stop feeding wild animals as well as enhancing public awareness towards wild pigs. AFCD will also establish an advisory group comprising experts from various fields to advise on the management of wild pigs. Details are set out in the Legislative Council Paper No. CB(1)487/18-19(05). In addition, AFCD will review the work on the handling of monkey nuisance with a view to developing a more comprehensive management plan.

- End -

CONTROLLING OFFICER'S REPLY

ENB010

(Question Serial No. 1102)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

The Legislative Council enacted the Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 (the Amendment Ordinance) last year to phase out local ivory trade in 3 phrases before 31 December 2021 and increase the penalties for smuggling and illegal trade of endangered species. In this regard, would the Government inform this Committee of the following:

- (a) The Department's expenditure and manpower for carrying out the above work over the past 5 years.
- (b) After the enactment of the Amendment Ordinance, has the Department undertaken any other new initiatives to combat smuggling and illegal trade of ivory in Hong Kong?
- (c) The details of the detected cases of ivory smuggling, including the numbers of cases, the quantities of ivory, the value of items, the numbers of persons arrested, the numbers of persons convicted, the maximum and minimum penalties, and the total amount of fines imposed over the past 3 years.

Asked by: Hon HO Kwan-yiu, Junius (LegCo internal reference no.: 23)

Reply:

- (a) The expenditure and manpower involved in carrying out licensing control of international trade in endangered species, including elephant ivory, and curbing of illegal trade in endangered species over the past 5 years by the Agriculture, Fisheries and Conservation Department (AFCD) are tabulated below:

Financial year	2014-15	2015-16	2016-17	2017-18	2018-19 (revised estimate)
Expenditure (\$ million)	29.7	33.2	36.2	42.5	47.5
Manpower (number of staff)	51	50	51	55	57

There is no separate breakdown of expenditure for the control of ivory trade.

- (b) The Legislative Council enacted the Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 (the Amendment Ordinance) on 31 January 2018. The Amendment Ordinance took effect on 1 May 2018. Starting from 1 August 2018, all import and export of ivory (save for antique ivory) for commercial purposes have been banned. A licence to possess is required for keeping pre-Convention ivory¹ for commercial purposes. AFCD will scrutinise the applications and inspect the commercial stocks of pre-Convention ivory by recording weight, taking photographs and putting on tamper-proof hologram stickers. In addition, AFCD has also implemented a series of measures that aimed at curbing smuggling and strengthening the control of local trade in ivory. The measures included enhancing inter-departmental collaboration and stepping up joint operations and intelligence exchange with the Customs and Excise Department and overseas law enforcement agencies such as Interpol; deploying sniffer dogs to detect ivory at import and export control points to assist detecting and preventing smuggling of ivory; using hi-tech radiocarbon dating analysis to determine the age and hence the legality of ivory.

On the other hand, AFCD has carried out a series of publicity and education activities to publicise the phase-out plan of the local ivory trade and the new penalty regime among the general public, travellers and traders. These include issuing circular letters, press releases and Facebook posts; distributing handbills and displaying posters at various import and export control points; broadcasting TV and radio announcements of public interest on cross-boundary coaches and YouTube Channel; as well as conducting education visits to licensed ivory shops and other art and craft shops. Internationally, AFCD has notified the World Trade Organization and all Parties to Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

- (c) Details of the cases of ivory smuggling over the past 3 years are tabulated below:

Calendar year	2016	2017	2018
Number of cases	41	64	55
Quantity of ivory seized (kg)	530	7 300	372
Market value (\$ million)	5	80	4
Number of persons arrested	30	60	51
Number of persons convicted	25	47	42

¹ Ivory that was acquired before the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) started to apply to elephants.

Maximum penalty (imprisonment/months)	8	3	4
Minimum penalty (fine/\$)	2,000	2,000	5,000
Total fine (\$ million)	1.2	0.2	0.1

- End -

CONTROLLING OFFICER'S REPLY

ENB011

(Question Serial No. 2764)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the conservation of green turtles and the Sham Wan Restricted Area on Lamma Island, please advise on the following:

- (a) (1) The details of the management of the Sham Wan Restricted Area on Lamma Island and the conservation of green turtles, including the details of work in planning to expand the Sham Wan Restricted Area in the forthcoming year; (2) the expenditures and manpower involved over the past 3 years; and (3) the expenditure and manpower involved in the forthcoming year.
- (b) What is the number of turtles which have been affixed with metal tags? For what purpose(s) will the Government utilise the data obtained from the tags?
- (c) Please advise on the details and expenditures involved in the relevant scientific/academic research project(s) conducted on Sham Wan/green turtles by the Department or other institutions over the past 5 years and the expenditure earmarked by the Department for researches on Sham Wan/green turtles in the forthcoming year.
- (d) Please advise on the numbers of cleaning operations conducted on the beach between June and October each year, the responsible department, the amount of refuse collected each month as well as the expenditures and manpower involved over the past 3 years.
- (e) Regarding the unauthorised entry to the Restricted Area and vessels exceeding the speed limit at the waters off the area, what were the numbers of complaints received, warnings issued and prosecutions initiated over the past 3 years?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 41)

Reply:

- (a) The sandy beach at Sham Wan, Lamma Island is the only regular nesting site of green turtles in Hong Kong. In order to minimise disturbance to green turtles, including their nests and eggs, the sandy beach at Sham Wan was gazetted as a Restricted Area under the Wild Animals Protection Ordinance (Cap. 170) in 1999. Access to the area is restricted during the period from 1 June to 31 October each year.

During the restricted period, patrols will be conducted to control unauthorised entry or activities and to monitor any nesting activities of green turtles. Before the onset of the nesting season each year, the Agriculture, Fisheries and Conservation Department (AFCD) will carry out conservation management on the nesting site (including removal of climbing plants and refuse) and deploy a remote surveillance camera system to monitor the Restricted Area and the surrounding coastal conditions as well as the nesting activities of green turtles. AFCD will also arrange contractors to survey and remove abandoned fishing nets in Sham Wan when necessary. To strengthen the protection of endangered green turtles, the Government has started preparation work for the expansion of the Sham Wan Restricted Area from the beach to the green turtles' breeding ground in the adjacent waters, and will seek the views of stakeholders and prepare for the legislative amendment this coming year.

As the above work forms part of the nature conservation work of AFCD, there is no separate breakdown on the expenditure involved.

- (b) Since 2000, AFCD has attached metal tags engraved with a unique serial number to 73 sea turtles. The metal tags will help identify individual sea turtles when they are encountered in the future.
- (c) Over the past 5 years, AFCD has conducted satellite tracking of sea turtles to study their migratory routes and to better conserve sea turtles and their habitats. AFCD also conducts population genetic analysis on sea turtles to better understand their genetic diversity. The expenditure involved in the above studies and the estimated expenditure in 2019-20 are tabulated below.

Financial year	Expenditure (\$)
2014-15	103,000
2015-16	13,000
2016-17	153,000
2017-18	158,000
2018-19 (revised estimate)	29,000
2019-20 (estimate)	50,000

AFCD does not have information on the scientific researches conducted by other institutions on sea turtles in Hong Kong.

- (d) The Food and Environmental Hygiene Department (FEHD) is responsible for regular cleaning of the Sham Wan beach. According to FEHD, regular cleaning at Sham Wan is conducted 1 to 2 times per week under normal conditions during the restricted period. Over the past 3 years, the volume of marine refuse collected each month during such period is tabulated below:

	Volume of marine refuse (kg)		
	2016-17	2017-18	2018-19
June	#	410	184
July	3 780	196	127
August	4 420	510	136
September	380	270	51
October	175	220	358

no record of such information

Apart from commissioning outsourced cleansing contractors, the routine cleaning work carried out by FEHD includes collecting and clearing the marine refuse. There is no breakdown on the manpower and expenditure involved. Under special circumstances, AFCD will arrange contractors and its staff to support FEHD's cleaning operations.

- (e) Over the past 3 years, AFCD did not receive any complaints, issue any warnings or initiate any prosecutions regarding unauthorised access to the Restricted Area at the sandy beach in Sham Wan. In addition, Sham Wan is one of the speed restricted zones for vessels set by the Marine Department (MD) to ensure safe navigation in the Hong Kong waters. MD is responsible for the law enforcement work at the speed restricted zones. AFCD does not have any record on the number of complaints received, warnings issued and prosecutions initiated regarding vessels exceeding the speed limit.

- End -

CONTROLLING OFFICER'S REPLY**ENB012****(Question Serial No. 2765)**Head: (22) Agriculture, Fisheries and Conservation DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) Nature Conservation and Country ParksControlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding smuggling activities of ivory, please advise on the following:

- (a) The details of the detected cases of ivory smuggling, including the numbers of cases, the quantities of ivory, the value of items, the numbers of persons arrested, the numbers of persons convicted, the maximum and minimum penalties and the total amounts of fines imposed over the past 3 years.
- (b) The weight of ivory destroyed, the estimated value and expenditure involved in each of the past 3 years.
- (c) The Government has mentioned that it will strengthen the control of trade in endangered species, in particular ivory, in the coming year. What are the details of the relevant work?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 42)Reply:

- (a) Details of the detected ivory smuggling cases over the past 3 years are tabulated below:

Calendar year	2016	2017	2018
Number of cases	41	64	55
Quantity of ivory seized (kg)	530	7 300	372
Market value (\$ million)	5	80	4
Number of persons arrested	30	60	51
Number of persons convicted	25	47	42
Maximum penalty (imprisonment/months)	8	3	4
Minimum penalty (fine/\$)	2,000	2,000	5,000

Calendar year	2016	2017	2018
Total fine (\$ million)	1.2	0.2	0.1

- (b) The quantity and estimated value of confiscated ivory disposed of by incineration in 2016 were 6 tonnes and \$60 million respectively. The expenditure involved in the disposal of the ivory was \$27,000. The Agriculture, Fisheries and Conservation Department (AFCD) did not dispose of any ivory in 2017 and 2018.
- (c) The Legislative Council enacted the Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 (the Amendment Ordinance) on 31 January 2018. The Amendment Ordinance took effect on 1 May 2018. Starting from 1 August 2018, all import and export of ivory (save for antique ivory) for commercial purposes have been banned. A licence to possess is required for keeping pre-Convention ivory² for commercial purposes. AFCD will scrutinise the applications and inspect the commercial stocks of pre-Convention ivory by recording weight, taking photos and putting on tamper-proof hologram stickers. In addition, AFCD has also implemented a series of measures that aimed at curbing smuggling of ivory and strengthening the control of local trade in ivory. The measures include enhancing inter-departmental collaboration and stepping up joint operations and intelligence exchange with the Customs and Excise Department and overseas law enforcement agencies, such as Interpol; deploying sniffer dogs to detect ivory at import and export control points to assist detecting and preventing smuggling of ivory; using hi-tech radiocarbon dating analysis to determine the age and hence the legality of ivory.

On the other hand, AFCD has carried out a series of publicity and education activities to publicise the phase-out plan of the local ivory trade and the new penalty regime among the general public, travellers and traders. These include issuing circulars, press releases and Facebook posts, distributing handbills and displaying posters at various import and export control points; broadcasting TV and radio announcements of public interest at cross-boundary coaches and YouTube Channel; as well as conducting education visits to licensed ivory shops and other art and craft shops. Internationally, AFCD has notified the World Trade Organization and all Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

In 2019-20, AFCD will continue to implement the above measures to curb smuggling and illegal trading of ivory.

- End -

² Ivory that was acquired before the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) started to apply to elephants.

CONTROLLING OFFICER'S REPLY

ENB013

(Question Serial No. 2766)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the international trade in endangered species, the questions are as follows:

- (a) Please set out in tabular form the applications for issue of licence received under the licensing control of the international trade in endangered species, the numbers of licences/certificates issued, the numbers of unsuccessful licensing applications and the reasons over the past 5 years.
- (b) Please advise on the numbers of cases on illegal trade in endangered species handled by the Government, the quantities of items, the numbers of persons arrested, the numbers of persons convicted, the ordinance(s) contravened, the maximum and minimum penalties and the total amount of fine over the past 5 years. Please also advise on the species most commonly involved and the whereabouts of the species seized.
- (c) Please advise on the expenditures involved in combating illegal trade in endangered species over the past 5 years. If there was an increase in the expenditures, what were the main reasons?
- (d) Please advise on the details, expenditures and manpower involved in the work of combating illegal trade in endangered species in the coming year.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 43)

Reply:

- (a) The numbers of applications for permits/certificates received and permits/certificates issued by the Agriculture, Fisheries and Conservation Department (AFCD) with respect to the imports, exports, re-exports and possession of scheduled species under

the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586) (the Ordinance) over the past 5 years are tabulated below:

Calendar year	Number of applications received	Number of permits/certificates issued*
2014	25 700	25 894
2015	23 089	23 475
2016	20 042	19 935
2017	18 938	19 043
2018	19 092	18 942

*The number of permits/certificates issued may differ from the number of applications received within the same calendar year as some permits and certificates were issued in respect of the applications submitted at the end of the previous year.

Some applications were unsuccessful mainly because the supporting documents submitted in respect of the applications were invalid. We do not retain statistics on the number of unsuccessful applications.

- (b) Various types of endangered species were involved in the enforcement actions taken to combat their illegal trade. Commonly encountered species included leather products of reptiles, pangolin scales/carcasses, ivory, timber and orchid, etc. The statistics on cases involving illegal imports and exports in contravention of the Ordinance over the past 5 years are tabulated below:

Calendar year	2014	2015	2016	2017	2018*
Number of cases	461	395	309	433	745
Quantity of products	137 260 kg and 6 696 pieces	1 074 800 kg and 25 218 pieces	148 820 kg and 2 594 pieces	63 130 kg and 4 272 pieces	273 160 kg and 18 975 pieces
Number of persons arrested	355	251	181	257	528
Number of convictions	222	153	126	170	178*
Maximum penalty (imprisonment/months)	10	6	8	3	8
Minimum penalty (fine/\$)	100	100	100	400	400
Total fine (\$ million)	2.9	2.0	1.8	0.3	0.6

*Some cases have been initiated with prosecution and legal procedures are in progress.

- (c) The expenditures incurred by AFCD to combat the illegal trade in endangered species over the past 5 years are tabulated below:

Financial year	2014-15	2015-16	2016-17	2017-18	2018-19 (revised estimate)
Expenditure (\$ million)	20.6	26.0	28.3	31.1	35.3

The expenditure was increased to strengthen inspection and enforcement against illegal trade in endangered species and cope with the workload arising from the growing number of species under control.

- (d) The Government is committed to the protection of endangered species and strictly regulates the trade in endangered species through enforcing the Ordinance which gives effect to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in Hong Kong. The legal trade in endangered species in Hong Kong is authorised and closely monitored through a permit/certificate system in accordance with the provisions of CITES. AFCD conducts inspections of consignments, registered stock and retail outlets to ensure relevant requirements are complied with and to deter illegal trade. On combating illegal import and re-export of endangered species, AFCD has been working closely with the Customs and Excise Department (C&ED) at import and export control points. An Inter-departmental Task Force on Wildlife Crime, comprising representatives of AFCD, the Environment Bureau, C&ED and the Hong Kong Police Force, has also been established to develop strategies on intelligence exchange and co-ordinate joint enforcement operations. AFCD and C&ED also cooperate with mainland and overseas law enforcement agencies through international joint operations and intelligence exchange to combat endangered species smuggling. Joint and targeted operations, both local and international, are undertaken to strengthen the frontline enforcement against endangered species smuggling. In addition, we will also explore new techniques to assist and enhance enforcement, such as the use of rapid DNA test methods (or real-time polymerase chain reaction method) to assist in identifying shark fins and European eel. The expenditure and manpower earmarked for the above tasks in 2019-20 are \$35.3 million and 44 staff respectively.

- End -

CONTROLLING OFFICER'S REPLY

ENB014

(Question Serial No. 0269)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead(No. & title): (610) Minor recreational facilities and roadworks in country parks
(block vote)

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Currently, what types of facilities (such as fitness facilities, barbecue pits, shelters, public toilets, etc) are provided in the country parks? Please set out the facilities by types.

Is there any information available on the locations of various facilities? Will the information be open to the public to facilitate the indication on maps?

The provision under Subhead 610 is only \$21.77 million but it is “up to a limit of \$10 million for each project” as mentioned in point 6 on page 47. Will the Government provide the information on the projects and the expenditures incurred over the past year?

When installing country park facilities, what criteria has the Government adopted? Has the public been consulted?

How many cases relating to damage of facilities within country parks have been received over the past 2 years? For damaged facilities, have the repair works been directly carried out by the department or by tender?

Asked by: Hon LAM Kin-fung, Jeffrey (LegCo internal reference no.:57)

Reply:

Facilities provided in country parks mainly include campsites, picnic sites, barbecue sites, morning walker gardens, shelters, refreshment kiosks, visitor centres, toilets, hiking trails, water dispensers, etc. The locations of popular country park facilities (e.g. hiking trails, barbecue sites, etc.) are available at GeoInfo Map (<https://www.map.gov.hk/gm/>), the Agriculture, Fisheries and Conservation Department (AFCD)'s website (<https://www.afcd.gov.hk>), the thematic website Enjoy Hiking (<https://www.hiking.gov.hk>)

and the Countryside Series maps published by the Lands Department of the Government of the Hong Kong Special Administrative Region. Besides, such information is also displayed on the information boards in various country parks.

AFCD will take into account visitors' needs, compatibility with the surrounding environment, and site specific considerations when considering the provision of required facilities in country parks. AFCD collects views from country parks users on the facilities through regular visitor satisfaction surveys, as well as meetings and discussions with different stakeholders. AFCD will also consult the Country and Marine Parks Board or its Country Parks Committee where appropriate. In addition, AFCD is conducting a public consultation on enhancing existing facilities of country parks with a view to enhancing the recreation and education potential of country parks.

In 2017 and 2018, AFCD received 56 and 99 cases respectively from the public reporting damaged facilities in country parks. Such facilities are normally maintained and repaired by AFCD's own staff.

The minor projects carried out and expenditures incurred in 2018-19 under the block vote for minor recreational facilities and roadworks in country parks (Subhead 610) are tabulated below:

Projects	Expenditure (revised estimate) (\$ million)
Upgrading of hiking trails and related facilities (e.g. fencing, waymarks, etc.)	3.8
Reconstruction of rain shelters	2.4
Reconstruction of forest tracks	2.2
Reconstruction of water main to public toilets	2.2
Improvement of visitor centres and interpretation panels	1.8
Provision of a star gazing site near Sai Wan	1.5
Construction of mountain bike trails	1.3
Provision of water dispensers	1.0
Minor slope works	1.0
Others (e.g. minor structures, outdoor furniture, etc.)	2.1
Total	19.3

- End -

CONTROLLING OFFICER'S REPLY

ENB015

(Question Serial No. 1403)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

The Government has mentioned in the brief description of Programme 2 that it will “provide nature conservation advice on development proposals, planning studies and environmental impact assessment”. Would the Government advise this Committee on the following:

- (a) What are the details of the advice provided by the Agriculture, Fisheries and Conservation Department (AFCD) on the relevant work over the past 3 years?
- (b) Has AFCD identified in the environmental impact assessments any land on the periphery of country parks with decreased conservation quality?
- (c) Will the Government conduct timely reviews on the coverage of country parks, so that areas that have been included in country parks can be released to make available more land resources if their conservation value or quality has dropped? If yes, what are the details? If not, what are the reasons?

Asked by: Hon LAM Kin-fung, Jeffrey (LegCo internal reference no.: 3)

Reply:

- (a) The Agriculture, Fisheries and Conservation Department (AFCD) is responsible for conserving local flora, fauna and natural habitats through offering conservation advice on development proposals, planning strategies, and environmental impact assessments. These include:
 - reviewing environmental impact assessment (EIA) studies;
 - enforcing Environmental Permit (issued under the Environmental Impact Assessment Ordinance (Cap. 499)) conditions related to nature conservation;
 - carrying out compliance monitoring, impact monitoring and effectiveness monitoring related to ecological assessment;

- commenting on planning applications, development plans (e.g. layout plans, outline zoning plans), site formation plans, lands matters and development proposals in respect of nature conservation;
- commenting on strategic planning and transport studies; and
- vetting tree felling applications related to developments.

Over the past 3 years, AFCD's advice in connection with the above work was mainly on the potential impacts of development proposals on important habitats and species (particularly sites and species of recognised conservation importance), the requirement for ecological assessments or tree surveys for development proposals, and ecological mitigation or tree protection measures to be adopted.

- (b) We have not identified any decline in the conservation quality of any land at the periphery of country parks from the findings of the EIA studies previously examined.
- (c) Country parks are designated under the Country Parks Ordinance (Cap. 208) (the Ordinance) for conservation, education and recreational purposes. As stipulated under the Ordinance, AFCD's duties are to develop and manage country parks and special areas; to encourage their use and development for the purposes of recreation and tourism; to protect the vegetation and wild life inside country parks and special areas; and to provide facilities and services for the public enjoyment of country parks and special areas. AFCD's scope of duties does not include conducting the review as mentioned in part (c) of the question.

- End -

CONTROLLING OFFICER'S REPLY

ENB016

(Question Serial No. 1419)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (000) Operational expenses

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Preventing the introduction and spread of animal and plant diseases is one of the Agriculture, Fisheries and Conservation Department's work areas. With regard to the appearance of wild pigs in Hong Kong in recent years, particularly their frequent appearance in urban areas, what plans does the Department have to reduce the nuisance caused by wild pigs to the public? Will additional resources be allocated to address the spread of wild pigs? What is the estimated expenditure involved?

Asked by: Hon LAM Kin-fung, Jeffery (LegCo internal reference no.: 28)

Reply:

In order to alleviate the nuisance caused by wild pigs in residential areas more effectively, the Agriculture, Fisheries and Conservation Department (AFCD) has conducted a comprehensive review on the strategy for the management of wild pigs and taken measures in a multi-pronged approach. Such measures include managing wild pig nuisance, reducing food attraction for wild pigs, educating the public to stop feeding wild animals as well as enhancing public awareness towards wild pigs. AFCD will also establish an advisory group comprising experts from various fields to advise on the management of wild pigs. Details are set out in the Legislative Council Paper No. CB(1)487/18-19(05).

In 2018-19, the revised estimate of AFCD for the management of wild pigs was \$10.3 million. Currently, there is a dedicated team for the management of wild pigs with 6 members. Besides, AFCD temporarily deployed 8 staff from other teams to render assistance. AFCD has earmarked \$14 million and 26 staff (including those 6 of the dedicated team) to take up the wild pig management duties in 2019-20. In addition, AFCD will deploy additional staff for each wild pig contraception/relocation operation.

- End -

CONTROLLING OFFICER'S REPLY

ENB017

(Question Serial No. 0799)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (-) Not Specified

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for Environment

Question:

- (a) The establishment of the Agriculture, Fisheries and Conservation Department as at 31 March 2019 will be 2 261 posts. It is expected that there will be a net increase of 36 posts in 2019-20. What are the reasons?
- (b) Please set out details of the 36 newly-created posts according to the programmes, ranks, job nature and salaries.
- (c) What are the existing staffing arrangement and their ranks for following up on the wild pig issue? Among the 36 new posts, is there any dedicated staff to follow up the wild pig issue? If yes, what are the details? If not, what are the reasons?

Asked by: Hon LAU Ip-keung, Kenneth (LegCo internal reference no.: 48)

Reply:

- (a) and (b) In 2019-20, there will be a net increase of 36 posts in the Agriculture, Fisheries and Conservation Department (AFCD). They are responsible for the policy areas of work under the Environment Bureau (ENB), the Development Bureau (DevB) as well as the Food and Health Bureau (FHB) respectively. The relevant information is tabulated below:

Area of Work	Rank	Number of posts	Provision for salaries in 2019-20 (\$ million)
Posts involving the policy areas of ENB			
To strengthen support for taking forward biodiversity initiatives including wildlife management	Veterinary Officer	1*	4.1
	Forestry Officer	1*	
	Field Officer I	1*	
	Field Officer II	2*	
	Fisheries Officer	1	
	Field Assistant	2*	
To support marine environmental management	Fisheries Supervisor II	1	0.3
To enhance management and operation of existing and proposed marine parks and marine reserve in Hong Kong	Fisheries Supervisor II	2	2.2
	Field Assistant	3	
	Artisan	4	
To enhance law enforcement and patrolling in country parks and geosites of the Hong Kong UNESCO Global Geopark	Field Assistant	3	0.8
To support the Lantau Conservation Fund	Fisheries Officer	1	1.2
	Fisheries Technical Officer II	2	
Posts involving the policy areas of DevB			
To arrange ex-gratia allowance for fishermen affected by the Three-Runway System Project and other marine works	Fisheries Supervisor II	2	0.5
Posts involving the policy areas of FHB			
To support equine diseases testing, surveillance and risk assessment	Veterinary Officer	1	3.7
	Veterinary Technologist	2	
	Veterinary Laboratory Technician I	2	
To handle animal poisoning and cruelty cases	Veterinary Officer	2	3.2
	Field Officer I	2	
To strengthen support for the Veterinary Surgeons Board	Executive Officer I	2	2.1
	Executive Officer II	1	
To strengthen support for the Supplies Section	Supplies Supervisor II	1	0.7
	Supplies Assistant	1	
	Supplies Attendant	1	
To strengthen support for the Personnel Section	Executive Officer I	1	0.8
To enhance promotion of animal welfare	Field Officer II	1	0.5
	Field Assistant	1	

Area of Work	Rank	Number of posts	Provision for salaries in 2019-20 (\$ million)
To take forward the Agricultural Park (Phase 1) in Kwu Tung South	Senior Agricultural Officer	1	1.4
To be offset by the lapse of nine time-limited posts	Senior Agricultural Officer	-1	-6.5
	Veterinary Officer	-1	
	Veterinary Technologist	-2	
	Veterinary Laboratory Technician I	-2	
	Fisheries Supervisor II	-2	
	Executive Officer I	-1	
Total		36	15.0

* For wild pigs management

- (c) In 2018-19, there are 6 staff in the dedicated team for the management of wild pigs. In addition, AFCD temporarily deploys 8 staff from other teams to render assistance. In 2019-20, AFCD will deploy 26 staff (including 7 posts to be created in 2019-20 as denoted in * in parts (a) to (b) above) to take up the wild pig management work.

- End -

CONTROLLING OFFICER'S REPLY

ENB018

(Question Serial No. 1870)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

The Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 (Amendment Ordinance) has come into effect on 1 May 2018 to implement the three-step plan to phase out local ivory trade. In this connection, please advise on the following:

- (a) What were the numbers of cases of smuggled ivory seized by the Customs and Excise Department (C&ED) in each year over the past 5 years, including: (i) the total value of the products involved; (ii) the types of ivory products; (iii) the weight seized; (iv) the mode of trade (i.e. import, export or re-export); (v) countries which the trade involved (i.e. places of origin of the seized ivory products or destinations of the ivory products); (vi) means of transport; (vii) penalties; and (viii) the stakeholders being prosecuted in each case. If such information is not available, what are the reasons?
- (b) What were the numbers of random checks conducted by C&ED on ivory products imported, exported and re-exported in each year over the past 5 years?
- (c) Regarding the three-step plan to phase out local ivory trade, what are the details of work, estimated expenditure and manpower involved in 2019-20?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 202)

Reply:

- (a) The enforcement figures regarding smuggling of ivory over the past 5 years are tabulated below:

Calendar year	2014	2015	2016	2017	2018
Number of cases	106	105	41	64	55
Estimated Seizure value (\$ million)	21	15	5	80	4
Seizure quantity (kg)	2 200 and 35 pieces	1 600	530	7 300	372
Number of import cases	93	102	39	61	47
Major loading countries (number of cases)	Nigeria (27) South Africa (22) Côte d'Ivoire (i.e. formerly Ivory Coast) (14)	Nigeria (33) Zimbabwe (23) South Africa (12)	Nigeria (11) Zimbabwe (9) South Africa (6)	Zimbabwe (15) Nigeria (10) Portugal (5) South Africa (5)	Nigeria (14) South Africa (5) Mozambique (4) Senegal (4)
Mode of transport (number of cases)	Air (88) Land (4) Sea (1)	Air (102)	Air (36) Land (1) Sea (2)	Air (59) Land (1) Sea (1)	Air (46) Land (1)
Number of export cases	2	1	1	3	4
Destination country (number of cases)	Mainland China (2)	Mainland China (1)	Mainland China (1)	Mainland China (3)	Mainland China (4)
Mode of transport (number of cases)	Land (2)	Land (1)	Land (1)	Land (1) Sea (2)	Land (3) Sea (1)
Transit/transhipment	11	2	-	-	2
Major loading country (number of cases)	South Africa (3) Angola (2)	Greece (1) Namibia (1)	-	-	Peru (1) United States of America (1)
Major destination country (number of cases)	Mainland China (3) Vietnam (3)	Mainland China (1) Malaysia (1)	-	-	-
Mode of transport (number of cases)	Air (11)	Air (2)	-	-	Air (2)

Calendar year	2014	2015	2016	2017	2018
Others (e.g. abandoned cases)	-	-	1	-	2
Number of persons convicted	65	30	25	47	42
Maximum penalty (imprisonment/ months)	8	6	8	3	4
Minimum penalty (fine/ \$)	10,000	30,000	2,000	2,000	5,000

Offenders of the convicted cases mainly entered Hong Kong as visitors or transit passengers via the airport. The ivory seized from these passengers was mostly worked ivory or semi-processed worked ivory while ivory seized from sea consignments was mostly raw tusks and large cut pieces.

- (b) By employing the risk management and intelligence-led approach, the Customs and Excise Department (C&ED) conducts checks on passengers, cargoes, postal parcels and conveyances at various control points to effectively fight against the smuggling offences including wildlife crimes. Throughout the years, C&ED and the Agriculture, Fisheries and Conservation Department (AFCD) have been working closely through mounting joint operations against smuggling of the endangered species (including ivory) scheduled under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) at import and export control points.
- (c) The Legislative Council enacted the Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 (the Amendment Ordinance) on 31 January 2018. The Amendment Ordinance took effect on 1 May 2018. Starting from 1 August 2018, all import and export of ivory (save for antique ivory) for commercial purposes have been banned. A licence to possess is required for keeping pre-Convention ivory for commercial purposes. AFCD will scrutinise the applications and inspect the commercial stocks of pre-Convention ivory by recording weight, taking photos and putting on tamper-proof hologram stickers. In addition, AFCD has also implemented a series of measures that aim at curbing smuggling of ivory and strengthening the control of local trade in ivory. The measures include enhancing inter-departmental collaboration and stepping up joint operations and intelligence exchange with C&ED and overseas law enforcement agencies, such as Interpol; deploying sniffer dogs to detect ivory at import and export control points to assist detecting and preventing smuggling of ivory; and using hi-tech radiocarbon dating analysis to determine the age and hence the legality of ivory.

On the other hand, AFCD has carried out a series of publicity and education activities to publicise the phase-out plan of the local ivory trade and the new penalty regime among the general public, travellers and traders. These include issuing circulars, press releases and Facebook posts; distributing handbills and displaying posters at various import and export control points; broadcasting TV and radio announcements of public

interest at cross-boundary coaches and YouTube Channel, as well as conducting education visits to licensed ivory shops and other art and craft shops. Internationally, AFCD has also notified the World Trade Organization and all Parties to the CITES.

In 2019-20, AFCD will continue to implement the above measures to curb smuggling and illegal trading of ivory. Since the implementation of these measures forms part of the CITES implementation work, there is no breakdown of the resources and manpower involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB019

(Question Serial No. 0676)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the policy on wild pigs in Hong Kong, would the Government inform this Committee of the following:

- (a) Will the Government conduct a comprehensive review of the policy on wild pigs in Hong Kong? If yes, please advise on the progress and the date of releasing the results.
- (b) What were the expenditure and manpower involved in handling wild pigs in 2018-19? What are the estimated expenditure and manpower in 2019-20?
- (c) The Agriculture, Fisheries and Conservation Department launched a two-year pilot scheme for the contraception of wild pigs with a view to evaluating the suitability of an immuno-contraceptive vaccine for controlling the population of wild pigs habituated to feeding and causing nuisance to the public in 2017. What is the provision earmarked for this scheme in 2019-20? In addition, will the Department consider increasing the number of wild pigs to be handled by contraception and the number of operations conducted under the pilot scheme?
- (d) Will the Government consider completely prohibiting the feeding of wild animals with a view to controlling the feeding of wild pigs? If yes, please advise on the details.

Asked by: Hon LO Wai-kwok (LegCo internal reference no.: 19)

Reply:

- (a) In order to alleviate the nuisance caused by wild pigs in residential areas more effectively, the Agriculture, Fisheries and Conservation Department (AFCD) has conducted a comprehensive review on the strategy for the management of wild pigs and taken measures in a multi-pronged approach. Such measures include managing

wild pig nuisance, reducing food attraction for wild pigs, educating the public to stop feeding wild animals as well as enhancing public awareness towards wild pigs. AFCD will also establish an advisory group comprising experts from various fields to advise on the management of wild pigs. Details are set out in the Legislative Council Paper No. CB(1)487/18-19(05).

- (b) In 2018-19, the revised estimate for the management of wild pigs by AFCD was around \$10.3 million. Currently, there is a dedicated team for the management of wild pigs with 6 members. In addition, AFCD has temporarily deployed 8 staff from other teams to render assistance.

In 2019-20, AFCD has earmarked \$14 million and deployed 26 staff (including the dedicated team of 6 members) for the management of wild pigs. In addition, AFCD will deploy additional staff for each wild pig contraception/relocation operation.

- (c) In 2019-20, the estimated expenditure on the implementation of the pilot contraception/relocation programme for wild pigs is \$7.5 million. AFCD will monitor the pig herds covered by the pilot programme and evaluate its effectiveness by end 2019. AFCD will decide the way forward taking into account the effectiveness of the pilot programme.
- (d) We have to take into account the complicated technical issues involved in law enforcement and the manpower required when considering the introduction of a total ban on feeding of wild animals through legislation to control the nuisance caused by wild pigs. The Government does not have any plan to completely ban the feeding of wild animals by legislative measures at the moment.

- End -

CONTROLLING OFFICER'S REPLY

ENB020

(Question Serial No. 2360)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

- (a) Please provide, by year, the Department's total expenditures involved in dealing with the wild pig issue, as well as the expenditures under the grand total (including the pilot Capture and Contraception/Relocation Programme (CCRP), the handling of complaints related to wild pigs, education and publicity, etc.) over the past 5 years and in the financial year 2019-20.
- (b) Please set out, by year, all of the Department's expenditures on CCRP, including the consultancy study, purchase of medicines, capture and contraception control/relocation operations, total staff cost and administrative expenses, etc. over the past 2 years and in the financial year 2019-20.
- (c) What are the latest numbers, estimated by the Department, of wild pigs in each district?
- (d) Please set out, by year, the numbers of complaints/reports related to wild pigs, and injury cases caused by wild pig attack received by the Department over the past 5 years.
- (e) Please set out, with an exhaustive breakdown, the latest figures related to CCRP (including the number of operations, number of wild pigs captured and the districts where they were captured, number of wild pigs that have received contraceptive vaccines, number of sterilised wild pigs, number of wild pigs relocated to remote countryside, and number of wild pigs which had side effects or other negative reactions after receiving contraceptive vaccines or undergoing sterilisation).
- (f) The Department mentioned early this year that wild pigs have been frequently appearing in urban areas or vicinity of residential areas instead of countryside in recent years. 44% of the reasons is that there are people feeding wild pigs and 34% of the reasons is the outdoor garbage. It also mentioned that it would focus on education

and control of food sources at this stage. What are the details of the said work and the estimated expenditures involved?

- (g) The Department mentioned in a document submitted to the Legislative Council in January this year that, “Since the implementation of pilot CCRP, an average of 3 wild pigs have been captured per operation, indicating a higher capture efficiency than that of hunting where an average of less than 1 wild pig was hunted per operation...other methods, as described in the ensuing paragraphs, (including CCRP, reduction of food attraction and public education, etc.) have proven to be safer and more effective in tackling wild pig nuisance and in removing wild pigs that would pose immediate or potential danger to the public especially in urban or residential areas.” The Department also emphasised that, “Having considered all relevant factors in particular the public safety concerns, AFCD has no plan to resume hunting by the civilian hunting teams.” Would the Department commit to continuing to give primary consideration to the capture efficiency of wild pigs and public safety principles, and treating animals in a civilised way instead of killing them? Would the Department dissolve permanently the wild pig hunting team with low capture efficiency and harming public safety when carrying out hunting operations in public areas?
- (h) Since the Department announced in 2017 that the wild pig hunting teams would stop conducting hunting operations, how has the Department dealt with the special permits for wild pig hunting and the valid arms licences?

Asked by: Hon MO Claudia (LegCo internal reference no.: 23)

Reply:

- (a) The expenditure of the Agriculture, Fisheries and Conservation Department (AFCD) on managing wild pigs over the past 5 years is tabulated below:

Financial year	Expenditure (\$ million)
2014-15	1.5
2015-16	1.8
2016-17	2.4
2017-18	6.8
2018-19 (Revised estimate)	10.3
2019-20 (Estimate)	13.9

- (b) The breakdown on AFCD’s expenditure on the implementation of the pilot Capture and Contraception/Relocation Programme (CCRP) for wild pigs over the past 2 years and the estimated expenditure on this respect in 2019-20 are tabulated below:

Financial year	Manpower (Number of staff)	Expenditure (\$ million)
2017-18	6	3.8

2018-19 (Revised estimate)	14	6.4
2019-20 (Estimate)	26	7.5

- (c) Wild pigs are generally solitary or live in small groups, secretive, widely distributed, and have very extensive home range. Currently, AFCD does not have the statistics on the population of wild pigs in Hong Kong, but it is devising methods to make an estimate.
- (d) The number of complaints and reports on injury related to wild pigs received by AFCD over the past 5 years is as follows:

Financial Year	Number of reports on the sighting of or nuisance caused by wild pigs (number of injury reports)
2014-15	396 (0)
2015-16	510 (0)
2016-17	643 (2)
2017-18	787 (4)
2018-19 (as of January 2019)	819 (8)

- (e) AFCD has tried implementing the pilot CCRP to handle the nuisance caused by wild pigs in urban areas since the end of 2017. The number of wild pigs captured, administered with contraceptive vaccines, surgically sterilised and/or relocated to remote countryside under the pilot CCRP by district as of February 2019, are tabulated below:

District	Number of wild pigs (head)			
	Captured	Administered with contraceptive vaccines	Surgically sterilised	Relocated to remote countryside
Central and Western	8	5	0	8
Wan Chai	10	7	1	7
Eastern	9	2	0	7
Southern	92	27	4	69
Tuen Mun	9	6	0	9
North	1	1	0	1
Tai Po	3	2	0	3
Sha Tin	19	3	10	3
Sai Kung	4	2	0	4
Total	155	55	15	111

The wild pigs administered with contraceptive vaccines or sterilised did not show obvious side effects or other adverse reactions.

- (f) The most effective way to reduce the appearance of wild pigs in residential areas is to stop feeding them. Feeding activities will wrongly impress the wild animals that there is stable food supply and will attract them to appear regularly near urban or residential areas. To this end, AFCD is conducting a series of publicity and education programmes. In addition to promotion on TV and radio, AFCD has also organised 15 outdoor educational exhibitions, 2 country park wildlife guided tours, a 2-day colouring competition (kindergarten and primary school) cum carnival, and 3 roving exhibitions. Besides, AFCD has been working closely with the Food and Environmental Hygiene Department (FEHD) on the improvement of refuse collection facilities (e.g. the litter containers and refuse collection points that wildlife usually visit). Improvement works carried out recently include the installation of metal swing doors at village-type refuse collection and recycling points and erecting bollards or parapets at bin sites to prevent the knocking down of refuse and recycling bins by wildlife (including wild pigs). In collaboration with FEHD and the Environmental Protection Department, AFCD is also conducting a consultancy study to improve the design of refuse bins, with a view to reducing nuisance caused by wild animals scavenging from outdoor refuse. The consultant provided 3 improved designs, which will be deployed for field trials in the first half of 2019 in areas of wildlife nuisance black spots, and further improvements will be made based on the trial results this year. Please refer to part (a) above for AFCD's expenditure on publicity, education and consultancy study for improving refuse collection facilities.
- (g) and (h) Although hunting is the most widely adopted and effective measure for managing wild pigs all over the world, in view of increasing concern of individuals/organisations towards animal welfare in Hong Kong, and also the safety concern of arranging hunting operations in public places or residential areas, all hunting operations have been suspended in Hong Kong since 2017. Having considered all relevant factors in particular the public safety concerns, AFCD has no plan to resume hunting by the civilian hunting teams at this stage. Currently, members of the civilian hunting teams are still holding the permits issued by AFCD in accordance with the Wild Animals Protection Ordinance and the arms licences issued by the Hong Kong Police Force. After the permits and licences concerned have expired, AFCD will stop renewing the permits.

- End -

CONTROLLING OFFICER'S REPLY

ENB021

(Question Serial No. 2364)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

- (a) Regarding the Department's work and the total expenditures involved in the conservation of the Chinese White Dolphins (CWDs), as well as the expenditures under the grand total (including all expenditures on Sha Chau and Lung Kwu Chau Marine Park, The Brothers Marine Park, the proposed Southwest Lantau Marine Park, the Soko Islands Marine Park and the designation of a new marine park for Integrated Waste Management Facilities at Shek Kwu Chau, etc.), what were the details over the past 5 years and that expected in the financial year 2019-20? What were the Department's total estimated expenditure and the expenditures under the grand total involved in the abovementioned initiatives in the financial year 2017-18?
- (b) Please set out the abundance of CWDs within the territory by their major habitats (including the North Lantau waters near Castle Peak, the Sha Chau and Lung Kwu Chau Marine Park, and waters around Chek Lap Kok and Tai O) over the past 5 years.
- (c) Please set out the numbers of CWDs, Indo-Pacific finless porpoises and other cetaceans stranded within the territory by their major habitats (including the North Lantau waters near Castle Peak, the Sha Chau and Lung Kwu Chau Marine Park, and waters around Chek Lap Kok and Tai O) over the past 5 years.
- (d) What is the Department's evaluation on the 21 water quality parameters of the respective marine parks and marine reserve? Please set out the name(s) of the parameter(s) and the figure(s) recorded which did not meet the standard(s) set by the Environmental Protection Department (EPD) in each of the past 5 years, as well as the standard figure(s) of the respective parameter(s) as set by EPD.
- (e) How does the Department evaluate the effectiveness of marine parks on the conservation of CWDs? Does the Department have any other measure(s) to enhance the habitats of local cetaceans apart from establishing additional marine parks? If yes, what are the details and the estimated expenditure of the measures?

- (f) Does the Department have any estimate on the future abundance of cetaceans in Hong Kong? If yes, what are the details?

Asked by: Hon MO Claudia (LegCo internal reference no.: 29)

Reply:

- (a) The Agriculture, Fisheries and Conservation Department (AFCD) has put in place a variety of measures that are conducive to the conservation and the continued survival of the Chinese White Dolphins (CWDs) in the Hong Kong waters. These include (i) close monitoring of the occurrence and distribution of CWDs in local waters; (ii) designation of important dolphin habitats as marine parks for proper conservation and management; (iii) stipulation of stringent requirements in Environmental Impact Assessments of nearby coastal development projects to ensure that the potential impacts on dolphins are adequately addressed; (iv) implementation of fisheries management measures which would benefit CWDs whose prey food species are dependent on sustainable and healthy fish stocks; and (v) organisation of education and publicity programmes to raise public awareness of and solicit their support for the conservation of CWDs.

Among the established marine parks, 2 of them, i.e. Sha Chau and Lung Kwu Chau Marine Park (SCLKCMP) and The Brothers Marine Park (BMP), incur recurrent expenditures related to the conservation of CWDs. The recurrent expenditures involved in the CWD conservation measures over the past 5 years and that earmarked for 2019-20 are as follows:

Financial year	Expenditure (\$ million)
2014-15	6.7
2015-16	6.3
2016-17	6.2
2017-18	9.1
2018-19 (revised estimate)	12.3 [#]
2019-20 (estimate)	11.8

[#]The increase in recurrent expenditure in 2018-19 was due to the strengthened management, law enforcement and dolphin monitoring in marine parks.

- (b) As Southwest Lantau, West Lantau, Northwest Lantau and Northeast Lantau are the 4 major habitats of CWDs in Hong Kong, AFCD's monitoring of the abundance of CWDs mainly focuses on these 4 areas. The abundance in the 4 survey areas is as follows:

Calendar year	Abundance				
	Southwest Lantau	West Lantau	Northwest Lantau	Northeast Lantau	Total
2014	26	36	24	1	87
2015	24	31	10	0	65
2016	9	27	11	0	47
2017	10	16	21	0	47
2018	(Data being analysed)				

AFCD does not have the estimated abundance of finless porpoises and other cetaceans in Hong Kong waters.

- (c) The numbers of stranded CWDs recorded over the past 5 years in North Lantau waters near Castle Peak, SCLKCMP, waters around Chek Lap Kok and Tai O are as follows:

Calendar year	Number of CWDs stranded				
	North Lantau waters near Castle Peak	SCLKCMP	Waters around Chek Lap Kok	Tai O	Other areas
2014	2	0	1	2	7
2015	2	2	1	2	8
2016	1	0	0	0	3
2017	0	1	1	0	3
2018	0	0	1	1	6

The numbers of stranded finless porpoises recorded over the past 5 years in North Lantau waters near Castle Peak, SCLKCMP, waters around Chek Lap Kok and Tai O are as follows:

Calendar year	Number of finless porpoises stranded				
	North Lantau waters near Castle Peak	SCLKCMP	Waters around Chek Lap Kok	Tai O	Other areas
2014	0	0	0	1	32
2015	0	0	0	0	21
2016	0	0	0	0	17
2017	0	0	0	0	18
2018	0	0	0	0	32

The numbers of other stranded cetaceans recorded over the past 5 years in North Lantau waters near Castle Peak, SCLKCMP, waters around Chek Lap Kok and Tai O are as follows:

Calendar year	Number of other cetaceans stranded				
	North Lantau waters near Castle Peak	SCLKCMP	Waters around Chek Lap Kok	Tai O	Other areas
2014	0	0	0	0	5
2015	0	0	0	0	1
2016	0	0	0	0	2
2017	0	0	0	0	3
2018	0	0	0	0	5

- (d) AFCD conducts regular water quality monitoring at various marine parks and marine reserve and measures and analyses 21 parameters. These parameters are air temperature, water temperature, salinity, dissolved oxygen, pH, Secchi disc depth, 5-day biochemical oxygen demand, total suspended solid, turbidity, Ammoniacal Nitrogen, unionised Ammonia, Nitrite Nitrogen, Nitrate Nitrogen, total inorganic Nitrogen, total Kjeldahl nitrogen, total Nitrogen, Orthophosphate Phosphorus, total Phosphorus, Chlorophyll-*a*, *Escherichia coli* and faecal coliforms. The water quality of the marine parks and marine reserve was good and complied with the corresponding Water Quality Objectives (WQO) set by the Environmental Protection Department, except for total inorganic nitrogen (TIN) which is an indicator of nutrient enrichment.

Subject to the influence of water current, the discharge from the river on the periphery of SCLKCMP is rich in nutrients, resulting in TIN concentrations at the aforementioned location being in excess of the WQO over the past 5 years, and that in BMP also exceeded the WQO in 2017 and 2018. TIN in Cape D'Aguilar Marine Reserve (CDMR) showed fluctuations. Measured TIN concentrations (in mg/L) in the aforementioned marine parks and in CDMR are tabulated as follows:

Calendar year	SCLKCMP (0.3mg/L)	BMP (0.3mg/L)	CDMR (0.1mg/L)
2014	0.84	/	0.30
2015	1.23	/	0.20
2016	0.95	/	0.12
2017	1.09	0.73	0.10
2018	0.97	0.82	0.11

Note:

- The WQO for annual depth-averaged TIN in the respective water control zones are shown in brackets.
 - Water quality monitoring in BMP commenced in 2017 after its designation.
- (e) Based on the findings of the long-term dolphin monitoring through vessel surveys and the results of the Passive Acoustic Monitoring initiated in 2017 by AFCD, the designation of SCLKCMP and BMP had positive effects on the conservation of CWDs. Please refer to item (a) above regarding CWD conservation measures and the recurrent expenditures involved.
- (f) AFCD will continue to monitor the occurrence of cetaceans in Hong Kong waters. AFCD does not have any estimate on the future abundance of cetaceans.

- End -

CONTROLLING OFFICER'S REPLY

ENB022

(Question Serial No. 2366)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (3) Animal, Plant and Fisheries Regulation and Technical Services

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for Food and Health

Question:

- (a) What were the details and expenditures on combating the illegal trade of endangered species by the Government over the past 5 years and in the financial year of 2019-20?
- (b) What are the details and frequencies of the inspections and quarantine operations conducted by the Department at various boundary control points and the Hong Kong International Airport?
- (c) What were the details and expenditures on the control of animal skin and fur products by the Government over the past 5 years and in the financial year of 2019-20?
- (d) Although the Protection of Endangered Species of Animals and Plants Ordinance (the Ordinance) has been amended in recent years and penalties have been increased significantly, there have still been a number of large-scale smuggling cases of endangered species in Hong Kong in the past year, which shows that Hong Kong has become a “smuggling paradise” and trade hub of endangered species. Such incidents show the incompetent enforcement of AFCD and the Customs and Excise Department and that the penalties and sentences of the current legislation are too lenient and the deterrent effect is not strong enough, making the relevant crimes become more rampant. What measures does the Government currently put in place to combat the illegal trade of endangered species?
- (e) Please set out the information, including the total numbers of cases, the numbers of cases detected as well as the details of the items involved, including the names/types, origins, composition that does not comply with the Ordinance, quantities imported, the final export destinations, the numbers of persons arrested, the numbers of persons convicted, the maximum and minimum penalties imposed, etc., of the cases of importing reptile skin products in contravention of the Ordinance over the past 5 years.

- (f) Please set out the information, including the total numbers of cases, the numbers of cases detected as well as the details of the items involved, including the names/types, origins, composition that does not comply with the Ordinance, quantities imported, the final export destinations, the numbers of persons arrested, the numbers of persons convicted, the maximum and minimum penalties imposed, etc., of the cases of importing pangolin scales/carcasses in contravention of the Ordinance over the past 5 years.
- (g) Please set out the information, including the total numbers of cases, the numbers of cases detected as well as the details of the items involved, including the names/types, origins, composition that does not comply with the Ordinance, quantities imported, the final export destinations, the numbers of persons arrested, the numbers of persons convicted, the maximum and minimum penalties imposed, etc., of the cases of importing ivory in contravention of the Ordinance over the past 5 years.
- (h) Please set out the information, including the total numbers of cases, the numbers of cases detected, the numbers of persons arrested, the numbers of persons convicted, the maximum and minimum penalties imposed, as well as the types of the items involved, quantities of the imported products, composition or species of animals involved and their final export destinations, etc., of the cases of importing animal skin and fur products in contravention of the Rabies Regulation (the Regulation), the Ordinance or other ordinances over the past 5 years.
- (i) Although the Ordinance currently restricts the import of animal skin and fur products into Hong Kong, there is no legislation restricting the trade of such products, showing that there are still loopholes in the legislation. Would the Government enact legislation to prohibit the trade of animal skin and fur to fully eliminate such trade? If yes, what are the details and timeframe for the legislation? If not, what are the reasons? What measures have been taken to step up the monitoring on trading in respect of animal skin and fur products? Would the Government consider introducing a certification scheme for identifying places of origin of skin and fur products, requiring that all skin and fur products imported and for trading in the market bear labels indicating whether the skin and fur used are genuine (and which types of animals they are obtained from) or counterfeit?
- (j) Please set out the information, including the total numbers of cases, the numbers of cases detected as well as the details of the items involved, including the names/types, origins, composition that does not comply with the Ordinance, quantities imported, the final export destinations, the numbers of persons arrested, the numbers of persons convicted, the maximum and minimum penalties imposed, etc., of the cases of importing bear gall bladders in contravention of the Ordinance over the past 5 years.
- (k) Would the Department conduct random inspections on products claimed to contain ingredients from bear gall bladders in order to deter illegal import of animal products regulated under the Ordinance into Hong Kong? If not, what are the reasons?
- (l) Although the Convention on International Trade in Endangered Species of Wild Fauna and Flora and the Ordinance do not impose regulation on the methods of collecting specimens of endangered species, would the Government prohibit the sale or import in

Hong Kong of products claiming to contain ingredients from bear gall bladders on humanitarian grounds?

- (m) What are the details and estimated expenditure involved in the conservation of Agarwood over the past 5 years and in the financial year of 2019-20?
- (n) What were the details of the Department's work on combating the illegal felling as well as the conservation of Agarwood in the past year? How would the Department evaluate the effectiveness of the relevant work?
- (o) Please set out the details of illegal felling of Agarwood over the past 5 years, including the total number of cases, numbers of cases detected, numbers of persons arrested, numbers of persons convicted, the maximum and minimum penalties, the total number of trees involved, etc.

Asked by: Hon MO Claudia (LegCo internal reference no.: 26)

Reply:

- (a) The Government is committed to the protection of endangered species and strictly regulates the trade in endangered species through enforcing the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586) (the Ordinance) which gives effect to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in Hong Kong. The import, export/re-export and domestic sale of endangered species in Hong Kong is regulated and closely monitored through a permit/certification system in accordance with the provisions of CITES. The Agriculture, Fisheries and Conservation Department (AFCD) conducts inspections of consignments, registered stock and retail outlets to ensure relevant requirements are complied with and to detect and deter illicit local trade in endangered species. On combating illegal import and re-export of endangered species, AFCD has been working closely with the Customs and Excise Department (C&ED) in mounting joint operations at import and export control points. AFCD and C&ED also co-operate with overseas and Mainland law enforcement agencies through international joint operations and intelligence exchange to combat smuggling of endangered species. An inter-departmental Task Force on Wildlife Crime, comprising representatives of AFCD, the Environment Bureau, C&ED and the Hong Kong Police Force (HKPF), has also been established to develop strategies on intelligence exchange and co-ordinate joint enforcement operations. Joint and targeted operations, both local and international, would be undertaken to strengthen the frontline enforcement against smuggling and illegal trade in endangered species.

In addition, the Legislative Council enacted the Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 (the Amendment Ordinance) on 31 January 2018, in order to phase out the local ivory trade by the end of 2021, and also to increase the penalties related to the smuggling and illegal trade of endangered species. The Amendment

Ordinance took effect on 1 May 2018. Starting from 1 August 2018, all import and export of ivory (save for antique ivory) for commercial purposes have been banned. At the same time, a licence to possess is required for keeping pre-Convention ivory for commercial purposes. AFCD will scrutinise the applications and inspect commercial stocks of pre-Convention ivory by recording weight, taking photo and putting on tamper-proof hologram sticker. Besides, AFCD has implemented a series of measures that aim at curbing smuggling of ivory and strengthening the control of local trade in ivory. The measures include enhancing inter-departmental collaboration and stepping up joint operations and intelligence exchange with C&ED and overseas law enforcement agencies such as Interpol; deploying sniffer dogs to detect ivory at import and export control points to assist detecting and preventing smuggling of ivory; conducting inspections targeting at licensed ivory shops and non-licensed art and craft shops to check the licence compliance as well as to detect and deter illegal ivory trade; as well as using hi-tech radiocarbon dating analysis to determine the age and hence the legality of ivory.

AFCD has carried out a series of publicity and education activities to publicise the phase-out plan of the local ivory trade and the new penalty regime among the general public, travellers and traders. These include distributing handbills and displaying posters at various import and export control points; broadcasting TV and radio announcements of public interest at cross-boundary coaches and YouTube Channel, as well as conducting education visits to licensed ivory shops and other art and craft shops.

In 2019-20, the Government will continue to implement the above measures to curb smuggling and illegal trade in endangered species.

AFCD's expenditure on combating illegal trade in endangered species over the past 5 years and the estimated expenditure earmarked for this area of work in 2019-20 are tabulated below:

Financial year	2014-15	2015-16	2016-17	2017-18	2018-19 (revised estimate)	2019-20 (estimate)
Expenditure (\$ million)	20.6	26.0	28.3	31.1	35.3	35.3

- (b) and (c) Import of live animals and animal products, including animal skin and fur products, are mainly regulated for the prevention and control of rabies and protection of endangered species through enforcing the Rabies Regulation (Cap. 421A) (the Regulation) and the Ordinance respectively. AFCD officers carry out inspections and quarantine operations, including the deployment of Quarantine Detector Dogs (QDDs) to perform screening duties, at various boundary control points and the Hong Kong International Airport to deter illegal import of live animals and animal products controlled under the Regulation and the Ordinance with a view to preventing the introduction of

exotic animal or zoonotic diseases into Hong Kong, safeguarding public health and protecting endangered species.

Information on the number of inspections and quarantine operations at various boundary control points and the Hong Kong International Airport over the past 5 years is as follows:

Calendar year	Number of inspections and quarantine operations	
	Boundary control points	Hong Kong International Airport
2014	5 000	109 400
2015	5 000	93 300
2016	4 600	86 800
2017	5 600	91 600
2018	4 700	80 700

The expenditure involved in the control of import of live animals and animal products, including animal skin and fur products, over the past 5 years and the estimated expenditure earmarked for this area of work in 2019-20 are tabulated as follows:

Financial year	Expenditure (\$ million)
2014-15	16.3
2015-16	17.9
2016-17	19.0
2017-18	19.7
2018-19 (revised estimate)	27.3
2019-20 (estimate)	27.3

- (d) Since the Amendment Ordinance took effect on 1 May 2018, the maximum penalties for offences related to illegal trade in endangered species have been increased to a fine of \$10 million and imprisonment for 10 years for Appendix I species and a fine of \$1 million and imprisonment for 7 years for Appendix II or III species. More serious cases of smuggling of endangered species were tried at District Courts instead of Magistrate Courts and the sentences handed down have been increased significantly. For instance, the penalty imposed in a case of illegal import of 3.1 kg rhino horn was an imprisonment of 8 months and that in another case of illegal export of 2.6 kg wood chips of Incense Tree was an imprisonment of 24 months. The penalties imposed in similar cases before the increase in the maximum penalties were about 2 to 4 weeks imprisonment and 2 months imprisonment respectively. We believe that the much heavier penalties imposed by the court would send a clear message to the public about the seriousness of such offences and provide a stronger deterrent against the illegal trade in endangered species.

- (e) The information on reptile skin products seized under the Ordinance over the past 5 years is tabulated below:

Calendar year	2014	2015	2016	2017	2018
Number of cases	53	51	61	51	52
Quantity of reptile skins seized (pieces)	304	294	424	253	241
Number of persons arrested	1	0	2	4	4
Number of persons convicted	1	0	2	4	4
Maximum penalty (fine; imprisonment)	\$60,000 [#]	N/A [^]	\$12,000	2 weeks	6 weeks
Minimum penalty (fine; imprisonment)	\$60,000 [#]	N/A [^]	\$6,000	2 weeks, suspended for 2 years	1 month, suspended for 18 months

[#] There was only 1 convicted case in 2014.

[^] There was no convicted case in 2015.

Most of the seized reptile skins were leather products of crocodile, python and water monitor and their last loading places were mainly European countries such as Switzerland, France and Spain.

- (f) The information on pangolin seized under the Ordinance over the past 5 years is tabulated below:

Calendar year	2014	2015	2016	2017	2018
Number of cases	22	19	23	20	54
Quantity of pangolin products seized (kg)	5 700	6 400	15 400	7 900	17 600
Number of persons arrested	12	15	14	18	37
Number of persons convicted	2	0	6	8	8
Maximum penalty (fine; imprisonment)	\$15,000	N/A [^]	2 months	2 weeks	4 weeks
Minimum	\$500	N/A [^]	\$1,000	2 weeks,	2 weeks,

Calendar year	2014	2015	2016	2017	2018
penalty (fine; imprisonment)				suspended for 18 months	suspended for 18 months

[^] There was no convicted case in 2015.

The seized items were all pangolin scales and their last loading places were mainly African countries such as Nigeria, Cameroon and Mozambique.

- (g) The information on ivory seized under the Ordinance over the past 5 years is tabulated below:

Calendar year	2014	2015	2016	2017	2018
Number of cases	106	105	41	64	55
Quantity of ivory seized (kg)	2 200 and 35 pieces	1 600	530	7 300	372
Number of persons arrested	107	57	30	60	51
Number of persons convicted	65	30	25	47	42
Maximum penalty (imprisonment/months)	8	6	8	3	4
Minimum penalty (fine)	\$10,000	\$30,000	\$2,000	\$2,000	\$5,000

The last loading places of the illegally imported ivory were mainly African countries such as Nigeria, Zimbabwe and South Africa. Ivory seized from inbound passengers or postal parcels was mostly worked ivory or semi-processed ivory while ivory seized from sea containers was mostly raw tusks and large cut pieces.

- (h) The information on animal skin and fur products seized under the Ordinance over the past 5 years is tabulated below:

Calendar year	2014	2015	2016	2017	2018
Number of cases	53	51	63	51	54
Quantity of animal skin and fur products seized (pieces)	304	294	424	253	244 and 153 m ²
Number of persons arrested	1	0	3	4	4
Number of persons convicted	1	0	3	4	4
Maximum penalty (fine; imprisonment)	\$60,000 [#]	N/A [^]	\$50,000; 6 weeks	2 weeks	6 weeks

Minimum penalty (fine; imprisonment)	\$60,000 [#]	N/A [^]	\$6,000	2 weeks, suspended for 2 years	1 month, suspended for 18 months
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[#] There was only 1 convicted case in 2014.

[^] There was no convicted case in 2015.

Most of the seized animal skins were leather products of crocodile, python and water monitor and their last loading places were mainly European countries such as Switzerland, France and Spain.

There was no illegal import case involving animal skin and fur products under the Regulation over the past 5 years.

- (i) The objective of CITES is to strengthen trade control through adoption of effective measures among governments of the contracting parties, so as to effectively protect the endangered species of wild fauna and flora and ensure that the sustainable use of wild fauna and flora will not be affected by international trade. Hong Kong abides by CITES in the protection of endangered species and implements it through enforcing the Ordinance. AFCD works closely with C&ED to combat smuggling of endangered species. By employing the risk management and intelligence-led approach, C&ED conducts checks on passengers, cargoes, postal parcels and conveyances at various boundary control points and sea ports to effectively fight against illegal import of endangered species specimens, including animal skin and fur products of endangered species. AFCD also conducts regular inspection at local shops to detect and deter illegal trade in endangered species. Besides, the maximum penalties under the Ordinance have recently been increased by a significant margin to enhance deterrent effect against illegal trade in endangered species. We have no plan to introduce a trade certification/labelling scheme for animal skin and fur products.

- (j) The information on bear bile products seized under the Ordinance over the past 5 years is tabulated below:

Calendar year	2014	2015	2016	2017	2018
Number of cases	0	0	0	1	2
Quantity of bear bile products seized (g)	0	0	0	10	91
Number of persons arrested	0	0	0	0	2
Number of persons convicted	0	0	0	0	2
Maximum penalty (fine; imprisonment)	N/A [^]	N/A [^]	N/A [^]	N/A [^]	\$20,000; 4 months, suspended for 24 months
Minimum penalty (fine)	N/A [^]	N/A [^]	N/A [^]	N/A [^]	\$5,000

[^] There was no convicted case.

The seized bear gall bladder products were all bear bile powder. The last loading places were the Mainland and Myanmar.

- (k) and (l) As stated in part (i) above, AFCD works closely with C&ED to combat illegal import of endangered species, including bear gall bladders. Currently, we have no plan to prohibit the sale of legally imported products containing ingredients from bear gall bladders.
- (m) and (n) AFCD has implemented a series of measures to protect Incense Trees against illegal felling. They include:
- (i) establishment of a special task force to conduct targeted patrol of sites at which important populations of Incense Tree are present, in addition to regular patrols in country parks and special areas;
 - (ii) working closely with HKPF in gathering and exchange of intelligence, conducting joint law enforcement operations at black spots and investigation of illegal tree felling cases, and enhancing the awareness and vigilance of the public about such offences through social media as well as various education and publicity programmes;
 - (iii) enhancing liaison and cooperation with concern groups and the villagers living near Incense Trees for intelligence gathering and reporting of any illegal felling activities;
 - (iv) conducting a pilot scheme using Infrared Sensor Camera Traps to monitor illegal felling of Incense Trees at several strategic locations;
 - (v) installing tree guards to prevent felling or vandalism of important individuals of Incense Tree;
 - (vi) dressing the wounds of damaged trees with anti-fungal paint to suppress the formation of agarwood in order to discourage illegal harvesting;
 - (vii) organising training to help frontline staff of HKPF and C&ED identify Incense Trees/agarwood and detect illegal activities;
 - (viii) launching a pilot scheme to deploy QDDs to facilitate detection of agarwood smuggling at land boundary control points;
 - (ix) stepping up the extensive planting of Incense Trees in country parks. Since 2009, about 10 000 seedlings of Incense Trees have been produced and planted every year to assist in the re-stocking of this species in Hong Kong; and
 - (x) supporting various research studies and activities to conserve this native species and enhance public awareness in this aspect.

In addition, long-term monitoring of important populations of Incense Trees is in place to monitor its conservation status and check on the effectiveness of the protection measures. The resources involved in implementing the above measures were absorbed in the allocation for nature conservation and management of country parks, hence no separate breakdown on the expenditure involved is available. However, AFCD has made additional provisions of \$8.3 million and \$6.3 million in 2018-19 and 2019-20 respectively to enhance the support for the above measures.

- (o) Over the past 5 years, all criminal cases involving illegal felling of Incense Trees were handled by HKPF under the Theft Ordinance (Cap. 210), the Summary Offences Ordinance (Cap. 228) or the Crimes Ordinance (Cap. 200). The relevant statistics are tabulated below:

Calendar year	Number of			Penalty (imprisonment / months)		Estimated number of trees involved
	Cases	Persons arrested	Prosecutions	Maximum	Minimum	
2014	134	65	26	55	3	240
2015	120	16	5	35	30	249
2016	54	22	8	30	2	172
2017	53	9	1	30 [#]	30 [#]	102
2018	41	1	0	N/A [^]	N/A [^]	78

[#] There was only 1 convicted case in 2017.

[^] There was no prosecution case in 2018.

- End -

CONTROLLING OFFICER'S REPLY

ENB023

(Question Serial No. 1674)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Under Programme (2), the Government's aim is to conserve flora, fauna and natural habitats; to designate and manage country parks, special areas, marine parks and marine reserves. In this connection, would the Government advise this Committee on the following:

- (a) Over the past 3 years, what were the numbers of (i) complaints relating to the appearances and nuisances of wild pigs and (ii) reports of damages to property or injury to people caused by wild pigs received by the Agriculture, Fisheries and Conservation Department? Please set out the numbers with a breakdown by District Council districts.
- (b) Will the Government consider conducting a territory-wide assessment on the number of wild pigs and their breeding trend? If yes, what are the details? If not, what are the reasons?
- (c) Given that the Government has indicated that it would carry out public education to remind the public not to feed wild pigs, please tabulate the numbers of public education programmes conducted and the participants, as well as the manpower and expenditures involved over the past 3 years?

Asked by: Hon NG Wing-ka, Jimmy (LegCo internal reference no.: 67)

Reply:

- (a) Over the past 3 years, the number of complaints and reports on injury related to wild pigs received by the Agriculture, Fisheries and Conservation Department (AFCD), by district, are tabulated below:

District	Number of reports on the sighting of or nuisance caused by wild pigs (number of injury reports)		
	Financial year		
	2016-17	2017-18	2018-19 (as of January 2019)
Central and Western	34 (0)	74 (0)	76 (1)
Wan Chai	35 (0)	59 (0)	80 (0)
Eastern	40 (2)	36 (0)	52 (0)
Southern	139 (0)	205 (1)	195 (3)
Yau Tsim Mong	0 (0)	1 (0)	0 (0)
Sham Shui Po	18 (0)	5 (0)	3 (0)
Kowloon City	1 (0)	3 (0)	12 (0)
Wong Tai Sin	31 (0)	12 (0)	14 (1)
Kwun Tong	6 (0)	5 (0)	5 (0)
Kwai Tsing	11 (0)	12 (0)	14 (0)
Tsuen Wan	18 (0)	57 (0)	20 (0)
Tuen Mun	26 (0)	38 (0)	46 (0)
Yuen Long	16 (0)	24 (0)	16 (0)
North	37 (0)	26 (0)	28 (0)
Tai Po	67 (0)	54 (1)	66 (3)
Sha Tin	78 (0)	53 (1)	73 (0)
Sai Kung	79 (0)	111 (1)	112 (0)
Islands	7 (0)	12 (0)	7 (0)
Total	643 (2)	787 (4)	819 (8)

- (b) Wild pigs are generally solitary or live in small groups, secretive, widely distributed, and have extensive home range. Currently, AFCD does not have the statistics on the population of wild pigs in Hong Kong, but it is devising methods to make an estimate.
- (c) The most effective way to reduce the appearance of wild pigs in residential areas is to stop feeding them. Feeding activities will wrongly impress the wild animals that there is stable food supply and attract them to appear regularly near urban or residential areas. To this end, AFCD is conducting a series of publicity and education programmes. In addition to promotion on TV and radio, AFCD has also organised 15 outdoor educational exhibitions, 2 country park wildlife guided tours, a 2-day colouring competition (kindergarten and primary school) cum carnival, and 3 roving exhibitions. Besides, AFCD has been working closely with the Food and Environmental Hygiene Department (FEHD) on the improvement of refuse collection facilities (e.g. the litter containers and refuse collection points that wildlife usually visit). Improvement works carried out recently include the installation of metal swing doors at village-type refuse collection and recycling points and erecting bollards or parapets at bin sites to prevent the knocking down of refuse and recycling bins by wildlife (including wild pigs). AFCD is also conducting a consultancy study to improve the design of refuse and recycling bins and refuse collection points, with a

view to preventing wild animals (including wild pigs) from obtaining food from humans.

As handling wild pig nuisance forms part of AFCD's work in handling nuisances caused by wild animals, there is no breakdown on the publicity / education and manpower which involved only wild pigs. Over the past 3 years, the expenditure incurred by AFCD on public education and publicity on the prohibition of feeding wild animals is as follows:

Financial year	Expenditure (\$million)
2016-17	0.6
2017-18	2.2
2018-19 (revised estimate)	2.2

- End -

CONTROLLING OFFICER'S REPLY**ENB024****(Question Serial No. 2212)**Head: (22) Agriculture, Fisheries and Conservation DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) Nature Conservation and Country ParksControlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the management and protection of country parks, special areas, marine parks and the marine reserve, would the Government inform this Committee of the following:

Please set out the numbers of inspections conducted by the Agriculture, Fisheries and Conservation Department in tabular form as follows.

Areas managed/Year	2017-18 (Actual)	2018-19 (Actual)	2019-20 (Estimate)
Country parks			
Special areas			
Marine parks			
Marine reserve			

Asked by: Hon OR Chong-shing, Wilson (LegCo internal reference no.: 49)Reply:

The numbers of patrols conducted in country parks, special areas, marine parks and the marine reserve by the staff of the Agriculture, Fisheries and Conservation Department (AFCD) over the past 3 years are tabulated below:

Areas managed / Financial year	Number of patrols		
	2017-18 (Actual)	2018-19 (As of February) (Actual)	2019-20 (Estimate)
Country parks and special areas *	14 755	14 415	14 800
Marine parks	2 789	2 497	2 650
Marine reserve	388	443	420

* As some of the patrols cover both country parks and special areas, AFCD does not have a breakdown on the number of patrols in these managed areas.

- End -

CONTROLLING OFFICER'S REPLY

ENB025

(Question Serial No. 2226)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in the Matters Requiring Special Attention in 2019-20 that the Government will strengthen the control of trade in endangered species, in particular ivory, and combat their illegal trade and smuggling. Please inform this Committee of the following:

- (a) What are the specific initiatives concerned? What are the manpower and expenditure involved?
- (b) How much ivory has been forfeited over each of the past 3 years?
- (c) What is the total amount of forfeited ivory in stockpile? Of which how much has been destroyed? What is the timeframe for destroying the stockpiled ivory and what are the manpower and expenditure involved?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 155)

Reply:

- (a) The Legislative Council enacted the Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 (the Amendment Ordinance) on 31 January 2018. The Amendment Ordinance took effect on 1 May 2018. Starting from 1 August 2018, all import and export of ivory (save for antique ivory) for commercial purposes have been banned. A licence to possess is required for keeping pre-Convention ivory³ for commercial purposes. The Agriculture, Fisheries and Conservation Department (AFCD) will scrutinise the applications and inspect the

³ Ivory that was acquired before the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) started to apply to elephants.

commercial stocks of pre-Convention ivory by recording weight, taking photos and putting on tamper-proof hologram stickers. In addition, AFCD has also implemented a series of measures that aim at curbing smuggling of ivory and strengthening the control of local trade in ivory. The measures include enhancing inter-departmental collaboration and stepping up joint operations and intelligence exchange with the Customs and Excise Department and overseas law enforcement agencies, such as Interpol; deploying sniffer dogs to detect ivory at import and export control points to assist detecting and preventing smuggling of ivory; using hi-tech radiocarbon dating analysis to determine the age and hence the legality of ivory.

On the other hand, AFCD has carried out a series of publicity and education activities to publicise the phase-out plan of the local ivory trade and the new penalty regime among the general public, travellers and traders. These include issuing circulars, press releases and Facebook posts; distributing handbills and displaying posters at various import and export control points; broadcasting TV and radio announcements of public interest at cross-boundary coaches and YouTube Channel; as well as conducting education visits to licensed ivory shops and other art and craft shops. Internationally, AFCD has notified the World Trade Organization and all Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

In 2019-20, AFCD will continue to implement the above measures to curb smuggling and illegal trading of ivory. Since the implementation of these measures forms part of CITES implementation work, there is no breakdown of the resources and manpower involved.

- (b) The quantities of ivory seized in 2016, 2017 and 2018 were 530kg, 7 300kg and 372kg respectively.
- (c) Since 2014, a total of 28 tonnes of confiscated ivory have been disposed of by incineration. The existing ivory stockpile under government custody is about 10 tonnes. Apart from saving some for scientific, education, enforcement or identification purposes, the incineration of the confiscated ivory will be arranged in 2019 after completion of the necessary legal procedures. The estimated expenditure for the disposal of the remaining ivory by incineration is \$70,000 and the manpower required will be absorbed by the existing staff of AFCD.

- End -

CONTROLLING OFFICER'S REPLY**ENB026****(Question Serial No. 0123)**Head: (22) Agriculture, Fisheries and Conservation DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) Nature Conservation and Country ParksControlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding Programme (2): Nature Conservation and Country Parks, would the Government inform this Committee of the following:

- (a) Are there any statistics on the numbers of country park visitors in recent years? If yes, what are the numbers over the past 3 years? If not, what are the reasons?
- (b) Is there any publicity on those ordinances relating to the country parks in Hong Kong targeted at visitors? If yes, what are the details? If not, what are the reasons?
- (c) Does the Government know that some country park facilities are improperly occupied by visitors? If yes, what measures will be taken to address the problem? If not, what are the reasons?

Asked by: Hon SHEK Lai-him, Abraham (LegCo internal reference no.: 5)Reply:

- (a) The number of visitors to country parks over the past 3 years is tabulated below:

Calendar year	Number of visitors (million)
2016	13.0
2017	13.0
2018	12.3

- (b) The Agriculture, Fisheries and Conservation Department (AFCD) promotes the protection and proper use of country parks through displaying the relevant regulations and visitor codes in country parks, and uses leaflets, posters, thematic websites, mobile applications and social media to remind visitors of the good practices. Besides, AFCD also promotes the relevant codes through publicity and education activities, such as nature appreciation events, roving exhibitions at shopping malls and guided tours at visitor centres. AFCD will continue to strengthen its publicity and education

efforts, and maintain communication with the Tourism Commission to promote the good practices and codes of green tourism to overseas visitors through various channels.

- (c) AFCD conducts regular patrol at country parks and monitors the usage of country park facilities, including campsites. Currently, there are 41 designated campsites in country parks for visitors to carry out camping activities on a first come, first served basis. The visitors' demand for camping facilities in country parks has increased in recent years. During long holidays when more visitors are expected, AFCD will step up patrol at campsites to monitor the situation and strengthen publicity at campsites to educate campers on the proper use of camping facilities and care for the countryside, so as to practise environmentally friendly camping activities. AFCD will take appropriate enforcement action if any illegal activity is detected. AFCD has also commissioned a consultancy study on enhancing the recreation and education potential of country parks in order to provide higher quality and more diversified facilities and services to visitors, including exploring the feasibility of introducing an advance booking system for popular campsites. In the ongoing public consultation, we are collecting the public's view on enhancing existing facilities of country parks, including enhanced management at popular campsites in country parks.

- End -

CONTROLLING OFFICER'S REPLY

ENB027

(Question Serial No. 0130)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

The 5-year Biodiversity Strategy and Action Plan for Hong Kong (BSAP) was announced in 2016, with \$150 million reserved for the first 3 year implementation (2016-19). Would the Government inform this Committee:

- (a) of the funding earmarked for implementing BSAP in 2019-20 and 2020-21;
- (b) of the current progress on the 67 specific actions to be taken by the Government that are set out in BSAP; and
- (c) of the staff arrangement, working plan and target in 2019-20.

Asked by: Hon SHEK Lai-him, Abraham (LegCo internal reference no.: 12)

Reply:

- (a) The Government started implementing the first Biodiversity Strategy and Action Plan (BSAP) for Hong Kong in 2016. In addition to the \$150 million allocated for the implementation of BSAP for the first 3 years (i.e. from 2016-17 to 2018-19), an additional \$100 million has been earmarked for the Agriculture, Fisheries and Conservation Department (AFCD) to continue to take forward the initiatives under BSAP for the next 2 years (i.e. 2019-20 to 2020-21).
- (b) Since the launch of BSAP, progress has been made under the 4 areas of action, and the progress up to end 2018 was generally in line with the timeframes set out. Highlights of major achievements include: designation of The Brothers Marine Park as the fifth marine park in Hong Kong; establishment of the Countryside Conservation Office to co-ordinate conservation of countryside areas and promote sustainable development of remote countryside; enactment of the Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 to step up enforcement action against

wildlife crime; implementation of a species action plan for conserving local populations of Incense Trees; updating of biodiversity parameters in the Sustainability Assessment System to better support the formulation process of major policies and plans of the Government; provision of funding support to research studies and public education programmes on biodiversity; organisation of the annual Hong Kong Biodiversity Festival and publicity campaigns to enhance public awareness towards and participation in biodiversity.

- (c) In 2019-20, 33 AFCD staff will continue to take forward the initiatives under BSAP in accordance with the planned timetable. Major initiatives include enhancing the management of country parks and Ramsar Site; designating new country and marine parks; formulating and implementing species action plans; monitoring and studying priority species and habitats; compiling the List of Threatened Species for Hong Kong; developing a biodiversity information hub for sharing relevant data and knowledge; as well as promoting biodiversity awareness among the public and stakeholders through further publicity and education activities.

- End -

CONTROLLING OFFICER'S REPLY

ENB028

(Question Serial No. 1515)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Please set out the details of the toilets managed by the Agriculture, Fisheries and Conservation Department, including the numbers of various types of toilets (water closets, dry closets, temporary toilets, etc.), the refurbishment work undertaken over the past 5 years, the refurbishment plan in the next 3 years as well as the number of toilets to be refurbished. What specific measures will there be to enhance the hygiene standard of the toilets?

Asked by: Hon YIU Si-wing (LegCo internal reference no.: 16)

Reply:

The Agriculture, Fisheries and Conservation Department (AFCD) is responsible for providing and managing public toilets in country parks and special areas, within which there are 64 flushing toilets, 42 dry toilets and 121 portable toilets. AFCD conducts regular cleansing and closely monitors the hygiene conditions of these public toilets. Where necessary, AFCD would step up cleansing frequency and/or carry out maintenance and enhancement work such as replacement of water faucets and ventilation fans, enhanced lighting and repainting of the interior in order to upkeep the conditions of the facilities.

Over the past 5 years, major projects conducted for improvement of the toilet facilities of country parks and special areas include the construction of a new toilet at the East Dam of the Sai Kung East Country Park; the installation of a new bio-treatment system for sewage treatment at the public toilets of the Lions Nature Education Centre of the Tsiu Hang Special Area, and the enhancement of the facilities of the portable toilets at To Tei Wan of the Shek O Country Park, etc.

In the coming 3 years, relevant improvement projects under planning include the refurbishment for 2 flushing toilets at Sai Wan of the Sai Kung East Country Park; the reconstruction of the bio-treatment system for the toilets at the Wan Tsai campsites of the

Sai Kung West Country Park (Wan Tsai Extension) and the provision of potable water supply for the public toilet at the Hok Tau campsite of the Pat Sin Leng Country Park.

Furthermore, AFCD has commissioned a consultancy study in August 2018 to review and explore practical options for improving selected sub-standard toilets in remote areas within country parks and special areas, including some dry toilets in very remote areas with substantial site constraints. The consultancy study aims at assessing the technical feasibility in the provision of essential infrastructures, including electricity, water supplies and sewage treatment to these toilets. The study is expected to be completed in the third quarter of 2019, following which AFCD would take forward the recommendations as appropriate.

- End -

CONTROLLING OFFICER'S REPLY

ENB029

(Question Serial No. 1523)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Hiking accidents take place from time to time. Would the Agriculture, Fisheries and Conservation Department increase the expenditure for improving the safety facilities and strengthening its efforts in public education and publicity in order to enhance the public safety awareness? If yes, please advise on the details.

Asked by: Hon YIU Si-wing (LegCo internal reference no.: 24)

Reply:

The Agriculture, Fisheries and Conservation Department (AFCD) has all along been encouraging hikers to use hiking trails that are managed and maintained by them. Hikers can obtain information of these hiking trails including Long Distance Trails, Country Trails, Family Walks and Nature Trails, etc. from the "Enjoy Hiking" website (www.hiking.gov.hk) and the mobile application ("Enjoy Hiking") for planning a safe hike. In addition, AFCD has compiled and uploaded a list of high risk locations that are more dangerous and with previous record of serious and fatal accidents in country parks to the said website to remind hikers to avoid planning to go to these locations. AFCD has also set up information boards and directional signs at suitable locations in country parks to provide trail information to hikers. If necessary, AFCD will also erect warning signs near locations of potential danger to alert hikers not to proceed further to avoid accidents. AFCD will review these measures from time to time, modify the existing signs and install additional ones as and when necessary.

AFCD regularly organises publicity activities such as exhibitions and game booths, and disseminates safety messages through Announcements in the Public Interest (APIs), websites, posters and pamphlets in order to enhance public awareness of hiking safety. In 2018-19, AFCD collaborated with relevant departments to produce new television and radio APIs and release a series of videos on the social media in order to step up the publicity and promotion of hiking safety to the public. AFCD also deploys staff to country parks to

convey the message of hiking safety to countryside visitors and will continue their efforts in raising public awareness of hiking safety. Since the above measures form part of the country park management and publicity work, there is no separate breakdown of the expenditure in this regard.

- End -

CONTROLLING OFFICER'S REPLY

ENB030

(Question Serial No. 1543)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

- (a) Please advise on the practice of employing cleansing workers of the toilets within the purview of the Agriculture, Fisheries and Conservation Department (including but not limited to: civil servants, government contract staff, outsourced staff, etc.)
- (b) Please advise on the highest, lowest and average hourly wages of the cleansing workers employed by adopting the aforesaid practice.
- (c) What plans are there to enhance the hygiene standard of public toilets through improving the remuneration of the cleansing staff?

Asked by: Hon YIU Si-wing (LegCo internal reference no.: 44)

Reply:

- (a) The cleansing of public toilets in country parks is carried out by civil servants at the ranks of Workman I and Workman II as well as cleansing workers employed by outsourced contractors.
- (b) As at March 2019, the monthly salaries of officers at the ranks of Workman I and Workman II range from \$13,885 to \$16,975 and from \$13,040 to \$15,365 respectively. For cleansing workers employed by outsourced contractors, the terms of employment, wage levels and contractual terms are to be agreed upon between the cleansing workers and their employers when they enter into employment contracts. The Agriculture, Fisheries and Conservation Department (AFCD) does not keep detailed information on the cleansing workers' salaries. AFCD will specify in the relevant service contracts that the outsourced contractors must offer appropriate wages and remuneration to their non-skilled workers in accordance with labour legislation (including a wage not lower than the Statutory Minimum Wage). AFCD also reviews

the payroll records of the contractors from time to time to ensure that the remuneration of the cleansing workers complies with the requirements of the Government.

- (c) AFCD closely monitors the hygiene conditions of the toilets under its purview. Where necessary, AFCD will step up cleansing frequency and/or carry out maintenance and enhancement work to ensure that the conditions are up to standard. The Government has also committed to enhancing the protection of the interests of the non-skilled workers engaged by Government service contractors. AFCD adheres to the relevant guidelines promulgated by the Government with a view to ensuring that the employment terms, including the remuneration, offered by our service contractors to their non-skilled workers meet the requirements, as well as enhancing the protection for non-skilled workers, such as specifying in the assessment criteria for the service contracts that the technical marks assigned to wages should be set at no less than 25% out of the total technical marks.

- End -

CONTROLLING OFFICER'S REPLY

ENB031

(Question Serial No. 3059)

Head: (33) Civil Engineering and Development Department
Subhead (No. & title): ()
Programme: (7) Management of Construction and Demolition Materials
Controlling Officer: Director of Civil Engineering and Development (Ricky C K LAU)
Director of Bureau: Secretary for the Environment

Question:

Would the Government inform this Committee of:

- (a) the reasons why the public fill supplied to local projects for beneficial reuse will be more than those received at public fill reception facilities;
- (b) whether it is necessary for contingencies to set a minimum stockpile level for public fill stockpiled at public fill reception facilities as at year end;
- (c) the reasons why the amount of recycling inert hard construction and demolition materials will substantially increase by about 40%, as well as of their criteria and source;
- (d) the criteria and source of public fill?

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1031)

Reply:

(a) The Government properly manages the inert construction and demolition (C&D) materials (also known as public fill) arising from various types of construction works through a multi-pronged approach, including promoting to the construction industry the reduction and reuse of public fill as much as possible. While part of the public fill are directly reused in local construction projects, the rest are delivered to public fill reception facilities (including 2 temporary fill banks) for storage and future reuse in reclamation or earth filling projects. As far as the public fill supplied for beneficial reuse in local projects are concerned, the public fill received at public fill reception facilities in a given year and the public fill stored at the public fill reception facilities are two of the examples.

(b) The Government actively promotes to the construction industry the reuse of public fill as much as possible, and has not set any minimum stockpile levels for public fill at the public fill reception facilities. Given that Hong Kong generates excessive public fill, the capacity of the public fill reception facilities are generally near saturation.

(c) Crushing facilities are provided at the temporary fill bank in Tseung Kwan O Area 137 to crush large C&D materials into recyclable inert hard C&D materials for use by construction projects. The Civil Engineering and Development Department will provide

recyclable inert hard C&D materials for use in the construction projects in light of their quantity of demand. According to the information on various construction projects, the estimated demand for the recyclable inert hard C&D materials will be about 0.4 million tonnes in 2019, higher than the demand of about 0.12 million tonnes in 2018.

(d) In general, C&D materials of different nature are abandoned in daily construction works, most of which are reusable inert materials such as rock, rubble, boulder, earth, soil, sand, concrete, asphalt, brick, tile, masonry and used bentonite. These inert materials are generally referred to as “public fill”. The local construction industry annually generates a large quantity of public fill. While part of the public fill are transferred to the local construction sites as appropriate for direct reuse, the rest are delivered to the temporary fill banks (if not yet full) for storage and future reuse in reclamation or earth filling projects.

- End -

CONTROLLING OFFICER'S REPLY**ENB032****(Question Serial No. 0660)**

Head: (33) Civil Engineering and Development Department

Subhead (No. & title): ()

Programme: (7) Management of Construction and Demolition Materials

Controlling Officer: Director of Civil Engineering and Development (Ricky C K LAU)

Director of Bureau: Secretary for the Environment

Question:

Will the Government inform this Council:

- of the quantity of inert construction and demolition materials generated from local projects, the total capacity of the public fill banks, the operational expenses incurred by the fill banks and the staffing establishment involved in the previous three financial years;
- of the expenses incurred in delivering public fill to the Mainland for beneficial reuse in the previous three financial years;
- whether the Government has considered establishing a fill reserve in a bid to reduce the reclamation cost, given that the Government is conducting study on new town development by means of reclamation.

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 1)

Reply:

The local construction industry annually generates a large quantity of public fill. While part of the public fill are transferred to the construction sites as appropriate for direct reuse, the rest are delivered to public fill reception facilities (including 2 temporary fill banks) for storage and future reuse in reclamation or earth filling projects. The Three-Runway System project and the Tung Chung New Town Extension project under construction are also absorbing public fill from the fill banks for reclamation.

The quantities of public fill locally generated and received at public fill reception facilities in each of the past 3 years are tabulated as follows:

Year	Public Fill Locally Generated (million tonnes)	Public Fill Received at Public Fill Reception Facilities (million tonnes)
2016	22.8	15.0
2017	17.9	13.3
2018	Figure under consolidation	14.6*

*Provisional actual figure subject to adjustment

There are currently 2 temporary fill banks in Hong Kong, located at Tseung Kwan O Area 137 and Tuen Mun Area 38, with a total capacity of about 20 million tonnes. In the past 3 financial years, the Government engaged 85 staff in the management of public fill, including professional, technical and resident site staff, etc..

As local reuse could not absorb all the public fill generated in Hong Kong in recent years, coupled with the fact that the capacities of temporary fill banks are limited, the Government has been delivering surplus public fill to Taishan in the Guangdong Province for disposal since 2007. The quantity of the surplus public fill delivered to Taishan for disposal in the past 3 years are tabulated as follows:

Year	Quantity of the Surplus Public Fill Delivered to Taishan for Disposal (million tonnes)
2016	13.6
2017	13.5
2018	10.0*

*Provisional actual figure subject to adjustment

The Government's expenditure on the management of public fill in the past 3 financial years are tabulated as follows:

Financial Year	Expenditure (\$ million)
2016-17	1,175.3 (actual)
2017-18	1,032.2 (actual)
2018-19	949.3 (revised estimate)

The above expenditure mainly includes the operation and maintenance costs of public fill reception facilities, costs for the delivery of surplus public fill to the Mainland and for the supply of the public fill stockpiled in fill banks to local projects for reuse, associated staff costs and administrative expenses, as well as costs for the provision of required facilities for disposal of public fill at disposal sites. As the delivery of surplus public fill to the Mainland and the supply of the public fill stockpiled in fill banks to local projects for reuse are both undertaken by a single contractor, there is no breakdown of the costs for individual operations in the contract.

- End -

CONTROLLING OFFICER'S REPLY

ENB033

(Question Serial No. 2388)

Head: (33) Civil Engineering and Development Department

Subhead (No. & title): ()

Programme: (3) Provision of Land and Infrastructure
(6) Supervision of Mining, Quarrying and Explosives
(7) Management of Construction and Demolition Materials

Controlling Officer: Director of Civil Engineering and Development (Ricky C K LAU)

Director of Bureau: Secretary for the Environment

Question:

Whilst sustaining the overall development of the territory, the construction industry has generated large amount of construction and demolition materials from construction, excavation and demolition works every year. About 90% of these construction and demolition materials are recyclable or reusable inert materials, which are commonly known as public fill, and can be used as fill materials in reclamation, site formation and other earth filling projects. The Civil Engineering and Development Department provides reception facilities to receive surplus public fill arising from the construction industry. The surplus public fill is temporarily stored in the fill banks, pending opportunity for reuse. In this connection, would the Government inform this Council:

1. of the quantity of public fill generated in Hong Kong, and the respective (a) quantities of public fill received, and (b) operational expenses incurred, by the four public fill reception facilities and the two fill banks in each of the past 5 years;
2. of the quantity and percentage of public fill used in public works in each of the past 5 years;
3. of (a) the quantity and percentage of the surplus public fill exported (with a breakdown by export destination), and (b) the quantity and percentage of the surplus public fill discarded at the landfills, by the Government in each of the past 5 years;
4. whether the quantity of public fill generated annually in Hong Kong is suffice to cope with the needs of local reclamation, site formation or earth filling works;
5. of the normal proportion of marine sand and public fill used in public works, as well as the difference in their costs;

6. whether the Government has considered the demand for public fill from the local projects and neighbouring areas, given the press report that there was an insufficient supply of marine sand for use in the reclamation works of the airport's third runway project;

7. whether the Government has reserved public fill for use in the possible major reclamation projects in future; if yes, of the details and estimated provision; if not, the reason for that?

Asked by: Hon MO Claudia (LegCo internal reference no.: 8)

Reply:

1(a) The Government properly manages the inert construction and demolition materials (also known as public fill) arising from various types of construction works through a multi-pronged approach, including promoting to the construction industry the reduction and reuse of public fill as much as possible. While part of the public fill are directly reused in local construction projects, the rest are delivered to public fill reception facilities (including 2 temporary fill banks) for storage and future reuse in reclamation or earth filling projects. There are currently a total of 4 public fill reception facilities in Hong Kong, namely Tseung Kwan O Area 137 Fill Bank, Tuen Mun Area 38 Fill Bank, Chai Wan Public Fill Barging Point and Mui Wo Temporary Public Fill Reception Facilities. The quantities of public fill locally generated and received at public fill reception facilities in each of the past 5 years are as follows:

Year	Public Fill Locally Generated (million tonnes)
2014	19.6
2015	22.8
2016	22.8
2017	17.9
2018	Figure being collated

Year	Tseung Kwan O Area 137 Fill Bank (million tonnes)	Tuen Mun Area 38 Fill Bank (million tonnes)	Chai Wan Public Fill Barging Point (million tonnes)	Mui Wo Temporary Public Fill Reception Facilities (million tonnes)	Total (million tonnes)
2014	5.6	4.3	2.4	Less than 0.05	Approx. 12.3
2015	6.7	7.2	2.0	0.1	16.0
2016	6.1	6.7	2.1	0.1	15.0
2017	6.0	5.9	1.3	0.1	13.3
2018	The actual quantity of public fill received at each public fill reception facility is subject to verification.				14.6*

*Provisional actual subject to adjustment

1(b) The Government's expenditure on the management of public fill in the past 5 financial years are tabulated as follows:

Financial Year	Expenditure (\$ million)
2014-15	910.1 (actual)
2015-16	918.4 (actual)
2016-17	1,175.3 (actual)
2017-18	1,032.2 (actual)
2018-19	949.3 (revised estimate)

The above expenditure mainly includes the operation and maintenance costs of public fill reception facilities, costs for the delivery of surplus public fill to the Mainland and for the supply of the public fill stockpiled in fill banks to local projects for use, associated staff costs and administrative expenses, as well as costs for the provision of required facilities for disposal of public fill at disposal sites, etc..

2, 3 and 4. The Government promotes the reuse of public fill in suitable local projects as far as possible. The proportion of public fill to be used in various construction projects is subject to their design and construction needs. The fill banks have been supplying public fill to more than 70 local projects (including public and non-public projects) in the past 5 years, including the Three-Runway System project and the Tung Chung New Town Extension under construction. The overall quantities of public fill supplied are tabulated as follows:

Year	Quantity Supplied (million tonnes)
2014	6.4
2015	0.7
2016	0.2
2017	0.3
2018	2.4*

*Provisional actual subject to adjustment

Note: The above figures do not include the public fill that is not delivered to fill banks but directly delivered to construction projects for reuse.

As local reuse could not absorb all the public fill generated in Hong Kong in recent years, coupled with the fact that the capacities of temporary fill banks are limited, the Government has been delivering surplus public fill to Taishan in the Guangdong Province for disposal since 2007, with a view to preventing the delivery of surplus public fill to landfills for disposal. The quantities of the surplus public fill delivered to Taishan for disposal in the past 5 years are tabulated as follows:

Year	Quantity of the Surplus Public Fill Delivered to Taishan for Disposal (million tonnes)	Percentage against the Total Quantity of Public Fill Stockpiled at Public Fill Reception Facilities in the Beginning of the Year and of Public Fill Received at Public Fill Reception Facilities in the Same Year
2014	10.2	30%
2015	13.0	40%
2016	13.6	42%
2017	13.5	42%
2018	10.0*	30%*

*Provisional actual subject to adjustment

5. The proportion of marine sand, public fill or other fill materials to be used in various construction projects is subject to their design and construction needs. As no charges will be made by the Civil Engineering and Development Department for collecting public fill from fill banks by public works project, there is no material cost of collecting public fill from fill banks for such projects, while the cost of marine sand will fluctuate in response to market situation.

6 and 7. The local construction industry annually generates a large quantity of public fill. As mentioned above, while part of the public fill are directly reused in local construction projects, the rest are delivered to temporary fill banks for storage and future reuse in reclamation or earth filling projects. The Three-Runway System project and the Tung Chung New Town Extension project under construction are absorbing public fill from fill banks for reclamation.

- End -

CONTROLLING OFFICER'S REPLY**ENB034****(Question Serial No. 3182)**

Head: (39) Drainage Services Department

Subhead (No. & title): Not specified

Programme: (2) Sewage Services

Controlling Officer: Director of Drainage Services (LO Kwok-wah)

Director of Bureau: Secretary for the Environment

Question:

The odour problem at Tsuen Wan Waterfront has plagued the local residents for over 20 years. Please tabulate the various measures adopted by the Drainage Services Department over the past 5 years to prevent and alleviate the odour there, as well as their expenditure and effectiveness.

Apart from physical measures such as construction of dry weather flow interceptors and use of deodourising PVC screens, does the Government plan on and earmark provision for studying and applying chemical and microbial etc. methods to eliminate the odour problem at the Waterfront, making reference to the methods adopted in Kai Tak Nullah? If yes, what are the details and timetable?

Asked by: Hon CHAN Han-pan (LegCo internal reference no.: 51)

Reply:

The Drainage Services Department (DSD) all along has been concerned about the odour problem at Tsuen Wan Waterfront, and actively adopted a multi-pronged approach to prevent and alleviate the odour.

Apart from the construction of 4 dry weather flow interceptors at Tsuen Wan Waterfront and installation of PVC screens at outlets of 3 box culverts, DSD conducted cleansing of the culverts twice yearly to prevent odour accumulation at the outlets.

Furthermore, DSD is collaborating with The Hong Kong University of Science and Technology to study the use of "odour inhibiting hydrogel" to inhibit the generation of hydrogen sulfide and other gases (such as volatile organic compounds commonly found in refuse) from the drainage system. Please refer to Table I for the expenditures and effectiveness of various measures adopted in Tsuen Wan over the past 5 years.

Table I

Measures to mitigate Tsuen Wan Waterfront odour	Expenditure over the past 5 years	Effectiveness
Construction of 4 dry weather flow interceptors	\$41 million approximately	The project is anticipated to be completed in September 2019. Effectiveness to be observed.

Measures to mitigate Tsuen Wan Waterfront odour	Expenditure over the past 5 years	Effectiveness
Installation of PVC screens at outlets of 3 box culverts	\$400,000 approximately	It can reduce the emission of odour from culverts.
Cleansing of 3 box culverts twice yearly	\$600,000 approximately	It could prevent accumulation of odour at outlets.
Placement of “odour inhibiting hydrogel”	\$40,000 approximately	Trial began in November 2018. Effectiveness to be observed.

Apart from the above measures, DSD is carrying out systematic investigation and rehabilitation works for sewers with high risks of structural failure across the territory, which can help alleviate the odour problem arising from leakage of ageing sewers.

- End -

CONTROLLING OFFICER'S REPLY**ENB035****(Question Serial No. 0058)**Head: (39) Drainage Services DepartmentSubhead (No. & title): Not specifiedProgramme: (2) Sewage ServicesControlling Officer: Director of Drainage Services (LO Kwok-wah)Director of Bureau: Secretary for the EnvironmentQuestion:

How many appeal cases of sewage charge and trade effluent surcharge were there in 2016-17, 2017-18 and 2018-19? Of these, how many were from the restaurant trade? How many appeal cases were approved? Of these, how many were from the restaurant trade? What is the average time needed to complete the processing of an appeal case?

Asked by: Hon CHEUNG Yu-yan, Tommy (LegCo internal reference no.: 36)Reply:

The number of applications and approved cases for reassessment of (i) trade effluent surcharge (TES) rate and (ii) discharge factor (DF) for sewage charge and TES in 2016-17, 2017-18 and 2018-19 are as follows:

		2016-17	2017-18	2018-19 (for the first 11 months only)
Reassessment of TES rate	Number of applications received			
	<i>All trades</i>	159	222	79
	<i>Restaurant trade</i>	147	139	68
	Number of applications approved ^{Note}			
	<i>All trades</i>	116	96	116
	<i>Restaurant trade</i>	107	88	55
Reassessment of DF	Number of applications received			
	<i>All trades</i>	23	31	31
	<i>Restaurant trade</i>	2	1	1
	Number of applications approved ^{Note}			
	<i>All trades</i>	15	17	18
	<i>Restaurant trade</i>	0	0	0

Note: As there is a time lag for processing the applications, the number of applications approved does not correspond to the number of applications received within the same financial year.

It normally takes 3 to 4 months to process a case.

- End -

CONTROLLING OFFICER'S REPLY

ENB036

(Question Serial No. 1573)

Head: (39) Drainage Services Department

Subhead (No. & title): Not specified

Programme: (2) Sewage Services

Controlling Officer: Director of Drainage Services (LO Kwok-wah)

Director of Bureau: Secretary for the Environment

Question:

1. Over the past three years, what are the number of foul water pipe misconnection cases received by the Department, the number of resolved cases, as well as the expenditure on rectification of the foul water pipe misconnection outside private buildings and rehabilitation of public sewers?
2. What are the progress and expenditure involved in each sewerage works over the past three years and in the coming year?
3. What is the latest progress of the Village Sewerage Programme?

Asked by: Hon LEUNG Mei-fun, Priscilla (LegCo internal reference no.: 20)

Reply:

1. Over the past 3 years, the Department received 83 foul water pipe misconnection cases. Of these, 51 cases were resolved. The expenditure on rectification of the foul water pipe misconnection outside private buildings was about \$1 million. On the other hand, the expenditure on rehabilitation of public sewers was about \$400 million.
2. The table below sets out the sewerage works being implemented by the Department and the expenditure involved in each works over the past 3 years and in the coming year:

Project titles	Expected completion year	2016-17 (Actual) (\$million)	2017-18 (Actual) (\$million)	2018-19 (Revised estimate) (\$million)	2019-20 (Estimate) (\$million)
Upgrading of Central and East Kowloon Sewerage - Phase 3	2024	0.000	0.000	2.122	39.902
Construction of dry weather flow interceptor at	2022	0.000	2.429	40.452	63.977

Project titles	Expected completion year	2016-17 (Actual) (\$million)	2017-18 (Actual) (\$million)	2018-19 (Revised estimate) (\$million)	2019-20 (Estimate) (\$million)
Cherry Street box culvert					
Construction of Additional Sewage Rising Main and Rehabilitation of the Existing Sewage Rising Main between Tung Chung and Siu Ho Wan	2025	10.800	79.990	139.300	124.000
Rehabilitation of Trunk Sewers in Tuen Mun	2023	0.000	0.000	2.000	165.060
Expansion of Sha Tau Kok Sewage Treatment Works, Phase 1	2025	0.000	0.000	30.000	193.840
Rehabilitation of Trunk Sewers in Kowloon, Shatin and Sai Kung	2022	0.000	0.274	34.000	57.000
Upgrading of Kwun Tong Preliminary Treatment Works	2022	0.000	15.406	56.670	59.670
Sewerage to Lei Yue Mun Village	2023	0.000	0.000	4.000	19.860
Upgrading of Sewage Pumping Stations and Sewerage along Ting Kok Road	2023	0.000	0.000	13.000	113.800
Tuen Mun sewerage, Castle Peak Road Trunk Sewer and Tuen Mun Village Sewerage	2019	114.706	95.588	100.000	88.500
Shek Wu Hui sewage treatment works – further expansion phase 1A – advance works, consultants fees and investigation	2019	69.766	139.206	88.594	22.600
Trunk sewers at Hiram's Highway	2020	0.000	2.386	6.406	8.505
Upgrading of San Wai sewage treatment works – phase 1	2020	115.006	421.795	487.000	455.000
Enhancement Works for Kwun Tong Sewage Pumping Station	2022	0.000	9.971	137.100	215.098

Project titles	Expected completion year	2016-17 (Actual) (\$million)	2017-18 (Actual) (\$million)	2018-19 (Revised estimate) (\$million)	2019-20 (Estimate) (\$million)
Upgrading of West Kowloon and Tsuen Wan Sewerage – Phase 1	2022	0.000	4.556	22.000	25.000
Outlying Islands sewerage stage 2 – Peng Chau village sewerage phase 2 package 1	2022	0.000	0.000	4.200	20.950
North District sewerage stage 2 part 2A – village sewerage for Tong To	2022	0.000	0.000	0.500	2.880
Relocation of Sha Tin Sewage Treatment Works to caverns – site preparation and access tunnel construction	2022	0.000	0.000	1.000	200.000
Rehabilitation of underground sewers stage 1	2022	0.000	0.000	2.100	28.960

3. Regarding the Village Sewerage Programme, as at December 2018, sewerage works at 242 villages were completed while those at about 265 villages are being implemented or have been included in the public works.

- End -

CONTROLLING OFFICER'S REPLY

ENB037

(Question Serial No. 1575)

Head: (39) Drainage Services Department

Subhead (No. & title): Not specified

Programme: (2) Sewage Services

Controlling Officer: Director of Drainage Services (LO Kwok-wah)

Director of Bureau: Secretary for the Environment

Question:

In 2017, the Drainage Services Department awarded the “Upgrading of West Kowloon and Tsuen Wan Sewerage – Phase 1” (the Project) to improve the water quality in the coastal area of West Kowloon and Tsuen Wan and planned to implement Phase 2 of the Project. In this connection, please advise this Committee of the following:

1. the latest progress of the aforementioned Phase 1 upgrading works and its effectiveness;
2. the timetable for the aforementioned Phase 2 of the Project as well as the expenditure involved and its coverage in detail;
3. the latest progress of comprehensive inspection work regarding the ageing sewer problem in Hong Kong at present;
4. whether the Department will increase provision for rehabilitating the ageing sewers across the territory as well as implementing more sewer works projects;
5. the figures on the distribution of dry weather flow interceptors across the territory at present.

Asked by: Hon LEUNG Mei-fun, Priscilla (LegCo internal reference no.: 23)

Reply:

1. The “Upgrading of West Kowloon and Tsuen Wan Sewerage – Phase 1” works has commenced in September 2017. Part of the works involves the construction of 4 new dry weather flow interceptors (DWFIs) in Tsuen Wan, which is anticipated to be completed in September 2019. Another part which involves the construction of 4 new DWFIs and modification of 43 existing DWFIs in West Kowloon is anticipated to be completed in succession in the second quarter of 2022. Upon completion of Phase 1 works, it is anticipated that it can remove about 70% of the total annual pollution loading from respective stormwater systems.
2. Phase 2 works will upgrade about 33.5 km of sewers in 5 areas of West Kowloon and Tsuen Wan (including Tsuen Wan, Kwai Chung, Sham Shui Po, Kowloon City and Yau Tsim Mong). Subject to funding approval of the Legislative Council, the Drainage

Services Department (DSD) plans to commence the works in stages by 2019-20. It is anticipated that the whole project will take about 7 years to complete. The relevant expenditure in 2019-20 is about \$1.6 million.

3. The territory-wide investigation of sewers began in January 2019, which includes the investigation of a total about 75 km in length of sewers in 18 districts and is anticipated to be completed in 2021.
4. DSD will regularly inspect the conditions of sewers and maintenance works will be carried out to defective sewers identified by the inspection under routine maintenance and repair. As many sewers have been in service for decades and are suffering from ageing and deterioration at an increasing rate, this routine approach is not sufficient to cope with the increasing maintenance needs. As such, DSD has provided more resources to tackle the ageing issue of sewers and begun part of the rehabilitation works, including rehabilitation of some main sewers in Kowloon City, Wong Tai Sin, Kwun Tong, Sha Tin, Sai Kung and Tuen Mun (to be completed in stages from 2022 to 2023), as well as rehabilitation of the rising main between Tung Chung and Siu Ho Wan (to be completed in stages from 2023 to 2025), and the first stage of territory-wide sewer rehabilitation works, which is anticipated to be completed in 2022. The design of other stages of sewer rehabilitation across the territory is underway.
5. At present, there are 187 DWFIs in Hong Kong, 40 of which on Hong Kong Island and outlying islands, 71 in Kowloon and 76 in the New Territories.

- End -

CONTROLLING OFFICER'S REPLY

ENB038

(Question Serial No. 2239)

Head: (39) Drainage Services Department

Subhead (No. & title): (000) Operational Expenses / Not specified

Programme: (2) Sewage Services

Controlling Officer: Director of Drainage Services (LO Kwok-wah)

Director of Bureau: Secretary for the Environment

Question:

It is stated under Matters Requiring Special Attention in 2019-20 that the sewage pumping stations and sewerage along Ting Kok Road will be upgraded. Please advise this Committee of the following:

1. the expected completion date of the works.
2. the expenditure involved.

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 173)

Reply:

The required information is as follows:

1. The works is expected to be completed in late 2023.
2. The estimated expenditure for the works project is \$847.3 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB039

(Question Serial No. 2240)

Head: (39) Drainage Services Department

Subhead (No. & title): Not specified

Programme: (2) Sewage Services

Controlling Officer: Director of Drainage Services (LO Kwok-wah)

Director of Bureau: Secretary for the Environment

Question:

It is stated under Matters Requiring Special Attention in 2019-20 that sewerage for some villages in Sha Tin, Tai Po, Port Shelter, Tseung Kwan O, Tuen Mun and Tsuen Wan will be provided. Please advise this Committee:

1. the staff establishment and expenditure involved in the sewerage works for each area.
2. the expected commencement and completion dates of the sewerage works for each area.

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 174)

Reply:

1. The Projects and Development Branch of the Drainage Services Department (DSD) (including chief engineers, senior engineers and engineers) concurrently manages some of the village sewerage works in Sha Tin, Tai Po, Sai Kung (Port Shelter), Tseung Kwan O, Tuen Mun and Tsuen Wan. Therefore, we do not have a breakdown of the expenditure involved. The estimated expenditure for related works in 2019-20 is about \$27.8 million.
2. Regarding the above various works, the submission to the Legislative Council for funding approval in this legislative session will be subject to the results of public consultations and completion of statutory procedures. Subject to the approval of the Finance Committee, DSD plans to commence the works in succession by 2019-20. Each works is expected to take about 5 years for completion.

- End -

CONTROLLING OFFICER'S REPLY

ENB040

(Question Serial No. 3152)

Head: (42) Electrical and Mechanical Services Department
Subhead (No. & title): Not Specified
Programme: (3) Energy Efficiency and Conservation, and Alternative Energy
Controlling Officer: Director of Electrical and Mechanical Services (Alfred W H SIT)
Director of Bureau: Secretary for the Environment

Question:

Regarding the operational expenses for the operation of the District Cooling System at the Kai Tak Development which already commenced operation, will the Government inform this Committee of the recurrent expenditure and maintenance expenditure in 2018-19, as well as the estimated annual recurrent expenditure, staff establishment and the estimated annual expenditure on emoluments for the establishment concerned in 2019-20?

Asked by: Hon CHAN Chi-chuen (LegCo internal reference no.: 30)

Reply:

Regarding the District Cooling System (DCS) at the Kai Tak Development (KTD), the recurrent expenditure (including operation and maintenance) in 2018-19 (up to the end of February 2019) was \$23.53 million, while the estimated recurrent expenditure (including operation and maintenance) in 2019-20 is \$58.58 million.

The staff establishment for the operation of the DCS at the KTD is 1 Senior Engineer, 1 Engineer, 1 Inspector, 1 Treasury Accountant and 1 Accounting Officer I.

The estimated expenditure on emoluments for the above staff establishment in 2019-20 is \$4.68 million.

- End -

CONTROLLING OFFICER'S REPLY**ENB041****(Question Serial No. 1875)**

Head: (42) Electrical and Mechanical Services Department

Subhead (No. & title): (-) Not Specified

Programme: (3) Energy Efficiency and Conservation, and Alternative Energy

Controlling Officer: Director of Electrical and Mechanical Services (Alfred W H SIT)

Director of Bureau: Secretary for the Environment

Question:

The Electrical and Mechanical Services Department (EMSD) has launched the voluntary Energy Efficiency Registration Scheme for Buildings (EERSB) since 1998 to encourage and promote the further enhancement of energy efficiency of buildings in Hong Kong. Besides, from 1 January 2018, all types of new and existing buildings / premises may apply to join the EERSB if they have outperformed the minimum statutory requirements on energy performance and obtained certificates of good energy performance from BEAM Plus of the Hong Kong Green Building Council or other internationally recognised building environmental assessment systems. Capital expenditure incurred on relevant eligible environmental protection installations (including lighting, air-conditioning, electrical, and lift and escalator installations) may enjoy accelerated tax deduction. In this connection, please advise:

- (1) Since the launch of the voluntary EERSB in 1998 up to now, what are the number of applications received each year, the number of applications approved with certificates issued and the number of applications rejected? What are the reasons for rejecting the applications (if any)? What is the average time for completing the processing of applications?
- (2) Please list, according to the table below, the details of the above approved applications.

Year in which the application was approved	Name of building / premises (please specify new / existing)	Type of eligible environmental protection installations involved	Capital expenditure on environmental protection installations	Total amount of accelerated tax deduction

- (3) Has the Government analysed the effectiveness of the above tax deduction? If no, what are the reasons? If yes, what is the conclusion?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 207)

Reply:

Regarding parts (1) and (2) of the question, the Electrical and Mechanical Services Department (EMSD) launched the voluntary Hong Kong Energy Efficiency Registration Scheme for Buildings (HKEERSB) in October 1998. As at end-December 2017, a total of 1 728 buildings were issued with certificates under the HKEERSB, while the processing of 199 applications could not be completed due to insufficient information.

After reviewing the HKEERSB in 2017, the EMSD launched the HKEERSB (2018 Edition) (HKEERSB 2018) in January 2018. As at 15 March 2019, a total of 23 applications were received under the HKEERSB 2018, of which 22 were approved and issued with certificates. No applications were rejected so far. The average processing time is 6 working days. Relevant statistics of the HKEERSB and HKEERSB 2018 are set out in the following table:

Year	Number of Buildings / Premises	Number of Installations
1999	15	23
2000	14	22
2001	15	25
2002	20	38
2003	130	350
2004	129	276
2005	235	652
2006	151	556
2007	99	260
2008	124	234
2009	154	288
2010	129	228
2011	97	204
2012	177	323
2013	87	264
2014	98	192
2015	43	119
2016	6	21
2017	5	19
2018	20	74
2019 (up to 15 March)	2	8

The tax deduction arrangement for capital expenditure incurred on the procurement of environmental protection installations is not administered by the EMSD, and the building owners concerned are not required to inform the EMSD whether they have applied for tax deduction. Hence, the EMSD does not have information about the capital expenditure on and tax deduction for such installations.

Regarding part 3 of the question, it was proposed in the 2018-19 Budget to further accelerate tax deduction for eligible environmental protection installations. This arrangement was implemented starting from the year of assessment 2018/19. As the Inland Revenue Department will issue profits tax returns for the year of assessment 2018/19 in April 2019, statistics of tax deduction involved for 2018-19 is not yet available for further analysis at the moment.

- End -

CONTROLLING OFFICER'S REPLY**ENB042****(Question Serial No. 1877)**Head: (42) Electrical and Mechanical Services DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (3) Energy Efficiency and Conservation, and Alternative EnergyControlling Officer: Director of Electrical and Mechanical Services (Alfred W H SIT)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the implementation of the Voluntary Energy Efficiency Labelling Scheme (VEELS):

- (1) Please list, according to the table below, the number of applications received under VEELS in each of the past 5 years.

Year in which the applications were approved	Identity of applicant (i.e. manufacturer / importer / agent)	Type of product	Place of origin of the product	Energy efficiency grade of the product

- (2) Were there any measures taken in the past 5 years to encourage manufacturers, importers and agents of electrical appliances to participate in VEELS? If yes, what are the details? Please list the expenditure and manpower involved by year.
- (3) Are there any plans to expand the coverage of VEELS? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 208)Reply:

(1) To raise consumers' awareness of choosing energy-efficient products, the Electrical and Mechanical Services Department (EMSD) has implemented the Voluntary Energy Efficiency Labelling Scheme (VEELS) since 1995. VEELS aims to promote energy saving by informing consumers of the products' energy efficiency performance and encourage suppliers to offer more energy-efficient products for consumers to choose from. VEELS covers a broad range of products, currently including 22 types of commonly used household appliances, office equipment and gas appliances.

The table below sets out the number of approved applications under VEELS in each of the past 5 years:

Year in which the applications were approved	Number of approved applications
2018	261
2017	294
2016	240
2015	255
2014	411

The table below sets out other relevant information:

Year in which the applications were approved	Identity of applicant (i.e. manufacturer / importer / agent)	Type of product	Place of origin of the product	Energy efficiency grade of the product
2014 to 2018	Applicants included manufacturers, importers and agents.	Household appliances and office equipment: Room air conditioners, refrigerating appliances, washing machines, electric storage water heaters, televisions, electronic ballasts, light-emitting diode (LED) lamps, microwave ovens, induction cookers, multifunction devices, printers, fax machines, hot/cold bottled water dispensers and computers. Gas appliances: Domestic gas instantaneous	China, Thailand, Japan, Malaysia, Korea, Italy, Turkey, Germany, Slovakia, Russia, Austria, the United Kingdom, Vietnam, Indonesia, Philippines, France, Taiwan and Spain.	“Grading Type” and “Recognition Type” energy efficiency labels.

		water heaters and gas cookers.		
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(2) In the past 5 years, the EMSD continuously encouraged manufacturers, importers and agents, through such opportunities as trade seminars, to participate in VEELS and offer more energy-efficient products for consumers to choose from. The publicity work was handled by the EMSD with existing manpower and resources, and no breakdown of such items is available.

(3) As 22 types of electrical appliances, office equipment and gas appliances are already covered under VEELS, our work in recent years has been to review and revise the details of the existing energy efficiency labelling schemes, e.g. revising the energy efficiency label of LED light bulbs. Apart from implementing VEELS, the EMSD will continue to expand the coverage of the Mandatory Energy Efficiency Labelling Scheme to include more products.

- End -

CONTROLLING OFFICER'S REPLY

ENB043

(Question Serial No. 2261)

Head: (42) Electrical and Mechanical Services Department
Subhead (No. & title): (-) Not Specified
Programme: (3) Energy Efficiency and Conservation, and Alternative Energy
Controlling Officer: Director of Electrical and Mechanical Services (Alfred W H SIT)
Director of Bureau: Secretary for the Environment

Question:

It is indicated in the matters requiring special attention in 2019-20 that the Electrical and Mechanical Services Department will conduct studies on the expansion of the scope of the Mandatory Energy Efficiency Labelling Scheme to cover more appliances, and will continue research and development works on the application of new energy efficiency and renewable energy technologies. What are the expected completion dates of the studies?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 153)

Reply:

The Electrical and Mechanical Services Department (EMSD) is conducting a study on the energy consuming products to be covered in the fourth phase of Mandatory Energy Efficiency Labelling Scheme (MEELS). In deciding whether certain products are to be included in the MEELS, a number of factors will be taken into consideration, including experience of other places, international testing standards, estimated energy consumption and potential energy saving of the products, as well as views from stakeholders, etc. The study is expected to be completed in 2019. Thereafter the EMSD will carry out consultation with the trade and the public.

The EMSD plans to carry out 3 studies on the application of new energy efficiency and renewable energy technologies in 2019-20, which include (i) immersion cooling technology for servers in data centres; (ii) solar control window films; and (iii) hybrid wind-solar power generators. These studies will commence in April 2019. It is expected that their interim reports will be completed in 2019-20.

- End -

CONTROLLING OFFICER'S REPLY**ENB044****(Question Serial No. 1064)**Head: (42) Electrical and Mechanical Services DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) Energy Supply; Electrical, Gas and Nuclear SafetyControlling Officer: Director of Electrical and Mechanical Services (Alfred W H SIT)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the increase in the number of LPG filling stations approved, the Electrical and Mechanical Services Department indicated that it was due to the conversion of petrol filling station to petrol cum LPG filling station and modification of existing LPG filling stations. What are the reasons for and details of the modification as well as the expenditure involved?

Asked by: Hon YICK Chi-ming, Frankie (LegCo internal reference no.: 42)Reply:

To further optimise the use of available sites for providing LPG filling services, the Government has since 2011 stipulated in the tender conditions of petrol filling station sites (including new sites and existing sites that are to be re-tendered upon expiry of their current leases) that operators shall provide LPG filling nozzles at a number of not less than 25% of the total number of petrol/diesel/LPG nozzles at the station, subject to safety requirements being met.

Of the 5 petrol cum LPG filling stations which are expected to be approved in 2019, 4 have to undergo conversion or modification works for compliance with the requirements of the above tender conditions. Details are as follows:

Address	Details
99 Castle Peak Road, Kwai Chung	Modification work to be carried out
698-704 Castle Peak Road, Kwai Chung	Modification work in progress
30A, San Tak Street, Tuen Mun	Conversion to petrol cum LPG filling station in progress
338 Tai Po Road, Sham Shui Po	Conversion to petrol cum LPG filling station completed in January 2019

As for the LPG filling station which is located at the junction of Kam Sheung Road and Pat Heung Road, Yuen Long, modification work will be carried out to complement the road widening work.

Law enforcement work in connection with LPG vehicles and filling stations is undertaken by a team of engineers and inspectors from the Electrical and Mechanical Services Department. Their responsibilities cover a wide range of duties related to LPG vehicles and filling stations, including overseeing the LPG filling network, supporting the infrastructure of LPG vehicles, and conducting law enforcement work related to the revalidation of LPG vehicle fuel tanks, etc. We do not have a breakdown of the estimated expenditure for the approval of LPG filling stations.

- End -

CONTROLLING OFFICER'S REPLY**ENB045****(Question Serial No. 3128)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (297) Fees for operation of waste management facilitiesProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

The provision under Subhead 297 Fees for operation of waste management facilities is \$2,431,649,000 in 2019-20. Would the Administration set out the estimated annual contract payments for the operation of the South East New Territories (SENT) Landfill, the West New Territories (WENT) Landfill, the North East New Territories (NENT) Landfill, the Chemical Waste Treatment Centre, the T • PARK, the WEEE • PARK and the O • PARK1 in 2019-20 respectively? What were the contract payments for the operation of the SENT Landfill, the WENT Landfill and the NENT Landfill in 2018-19 respectively?

Asked by: Hon CHAN Chi-chuen (LegCo internal reference no.: 6)Reply:

The estimated operation costs of the 3 strategic landfills, the Chemical Waste Treatment Centre, the T • PARK, the WEEE • PARK and the O • PARK1 in 2019-20 are tabulated below:

	2019-20 Estimate (\$ million)
South East New Territories (SENT) Landfill	217
West New Territories (WENT) Landfill	372
North East New Territories (NENT) Landfill	237
Chemical Waste Treatment Centre	267
T • PARK	292
WEEE • PARK	204
O • PARK1	54

The operation costs (revised estimate) of the 3 strategic landfills in 2018-19 are tabulated below:

	2018-19 Revised estimate (\$ million)
SENT Landfill	205
WENT Landfill	366
NENT Landfill	218

- End -

CONTROLLING OFFICER'S REPLY

ENB046

(Question Serial No. 3129)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is stated in the Matters Requiring Special Attention in 2019-2020 under this Programme that the Administration will continue to take forward the legislative proposal of Municipal Solid Waste (MSW) charging and undertake other preparatory work for the implementation of MSW charging. Would the Administration inform this Committee of the operational expenses, staff establishment and estimated annual expenditure on salaries to be involved in performing the above work in 2019-2020?

Asked by: Hon CHAN Chi-chuen (LegCo internal reference no.: 7)

Reply:

The Environmental Protection Department has 50 posts in 2019-20 to take forward municipal solid waste charging and relevant preparatory work. The estimated annual expenditure on salaries involved is about \$41 million. About \$74 million has also been earmarked for the relevant preparatory work.

- End -

CONTROLLING OFFICER'S REPLY

ENB047

(Question Serial No. 3161)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Would the Administration advise this Committee on the following:

- (1) What was the total weight of old electrical appliances recycled by the recycling service operator for regulated electrical equipment (REE) appointed by the Government in 2018-19? What was the total weight of old electrical appliances recycled by recyclers who were not recycling service operators appointed by the Government but had obtained waste disposal licences for REE?
- (2) What was the number of complaints received by the Administration about the service quality of the recycling service operator for REE appointed by the Government in 2018-19?
- (3) What measures has the Administration put in place to encourage the public to give more old electrical appliances to recyclers who are not recycling service operators appointed by the Government but have obtained the above e-waste disposal licences for treatment so as to prevent the recycling service operator appointed by the Government from monopolising the REE recycling market?
- (4) What was the amount of operation fee paid to the REE recycling service operator appointed by the Government, namely the ALBA Integrated Waste Solutions (Hong Kong) Ltd., in 2018-19?
- (5) What is the estimated amount of operation fee to be paid to the REE recycling service operator appointed by the Government, namely the ALBA Integrated Waste Solutions (Hong Kong) Ltd., in 2019-20? Has such operation fee been included in the operational expenses for 2019-20?

Asked by: Hon CHAN Chi-chuen (LegCo internal reference no.: 40)

Reply:

- (1) The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) has been fully implemented. The Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK), developed by the Government to underpin the WPRS, processed a total of about 10 830 tonnes of

waste regulated electrical equipment (REE) (i.e. air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors) in 2018.

As at early March 2019, the Environmental Protection Department (EPD) has issued a total of 10 waste disposal licences for REE (including the WEEE • PARK operator). The licences took effect on 31 December 2018. The licensees should then submit statistics on the amount of waste REE treated to the EPD on a quarterly and annual basis. As the first quarterly report will be submitted in mid-April 2019, apart from the WEEE • PARK, the EPD does not have the statistics on the amount of waste REE treated in respect of the remaining 9 licences for the time being.

- (2) Since the implementation of the WPRS on 1 August 2018 (i.e. commencement of the statutory mandatory requirements for sellers to provide removal service for old REE) and up to the end of December 2018, the WEEE • PARK processed a total of about 83 700 collection service requests, and the EPD has received a total of 25 complaints about the service provided by the operator appointed by the Government.
- (3) The reason for the Government's investment in the development of the WEEE • PARK is to ensure that Hong Kong has adequate capacity in processing the waste REE generated locally, particularly the waste REE with lower recycling value or higher processing cost, such as refrigerators and washing machines, in support of the implementation of the WPRS. Under the WPRS and the Waste Disposal Ordinance, collectors who collect electrical appliances on site are not required to apply for a licence. As such, REE sellers can choose different logistics companies as the designated collectors under the removal service plan themselves for sending the collected items to the licenced recyclers for further treatment. It is not necessarily be the WEEE • PARK operator. With the full implementation of the WPRS, the waste REE generated in Hong Kong will be processed locally, which will provide more business opportunities for the recycling industry. We will consider how to further encourage the participation of the recycling industry in the recycling and treatment of REE having regard to market development, with a view to promoting a circular economy in Hong Kong.
- (4) The estimated annual operating cost of the WEEE • PARK in 2018-19 was about \$155 million.
- (5) The estimated annual operating cost of the WEEE • PARK in 2019-20 is about \$204 million. This is largely due to an estimated increase in the quantity processed.

- End -

CONTROLLING OFFICER'S REPLY

ENB048

(Question Serial No. 0987)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

On promoting the use of electric vehicles (EVs) in Hong Kong, would the Government advise this Committee on the following:

- Will the Government set a target on the percentage of EVs? If yes, what are the details? If no, what are the reasons?
- How many vehicle owners have enjoyed the first registration tax (FRT) concessions since April 2017? What is the amount of the concessions? Please set out the number of vehicles granted with the FRT concessions by brand.
- Since the implementation of the "One-for-One Replacement" Scheme, how many vehicle owners have enjoyed the FRT concessions?
- How many vehicles will be procured by various government departments this year? Among them, what is the percentage of EVs? What is the average price of the vehicles?
- How many EV charging facilities does the Government plan to construct in the coming 3 years? What are the details?
- The Government plans to allocate \$120 million to provide over 1 000 additional public EV chargers at government car parks. What are the potential sites? According to the above estimate, it is projected that the cost of each charger is nearly \$120,000. What are the reasons?
- Currently, what is the number of government car parks in various districts? What are the numbers of parking spaces installed with EV chargers in these car parks and what are the respective percentages?
- Further to the above question, what is the present situation of EV parking spaces being occupied by non-EVs?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 29)

Reply:

(1) Hong Kong is a free market. The Government's policy on promoting electric vehicles (EVs) is to establish measures to encourage and assist market development. In fact, the sales of EVs can be affected by various factors, such as local conditions,

development of EVs and the related technologies, economic situations, EV prices, vehicle owners' preferences and availability of suitable EV models and their supply, and therefore the Government has not set targets for individual type of vehicles.

(2) and (3) The number of vehicle owners who enjoyed the first registration tax (FRT) concessions for EVs between April 2017 and February 2019 and the amount of the concessions are tabulated below:

FRT concession arrangement for EVs		Amount of FRT concessions (\$m) (Note 1)		No. of vehicle owners (Note 2)
		Financial year 2017-18	Financial year 2018-19 (As at 28 February 2019)	
Electric private cars	One-off arrangement (Note 3)	9.4	0	17
	Up to \$97,500	10.9	14.0	200
	"One-for-One Replacement" Scheme (Up to \$250,000)	1.4	74.8	341
Other EVs (Note 4)		0.9	1.4	33
Total		22.6	90.2	

Note 1: Excluding government vehicles as no FRT is required to be paid for such vehicles.

Note 2: A vehicle owner is entitled to more than one FRT concession arrangement for EVs or register more than one EV under the same arrangement. Therefore, some of the vehicle owners categorised under the FRT concession arrangement for EVs in the table have been double-counted.

Note 3: As a one-off arrangement, electric private cars (e-PCs) ordered by buyers from local registered distributors or arranged for shipment to Hong Kong by owners before 11 a.m. (Hong Kong time) of 22 February 2017, the delivery date of the 2017-18 Budget Speech by the Financial Secretary, could still have their FRT fully waived even if the concerned e-PCs were first registered after 31 March 2017. Between 1 April 2017 and 28 February 2019, 18 newly registered e-PCs were eligible for the one-off arrangement.

Note 4: Including electric commercial vehicles, motor cycles and special purpose vehicles. Excluding franchised buses as no FRT is required to be paid for these buses.

Meanwhile, the number of EVs granted with the FRT concessions by brand is tabulated below:

Brand	No. of EVs granted with the FRT concessions
BMW	79
BYD	21
DFSK	1
HYUNDAI	176
JOYLONG	5
KING LONG	1
LINDE	2
MITSUBISHI	1

Brand	No. of EVs granted with the FRT concessions
NISSAN	87
RENAULT	113
SMART	11
STILL	1
TAYLOR DUNN	3
TESLA	153
TOYOTA	9
VOLKSWAGEN	57
YOUNGMAN	4
ZERO	2

(4) The government departments procured a total of 700 vehicles in 2018, among which 7 were EVs, accounting for 1.0% of the total. The average price of the EVs was \$235,000 each.

(5) and (6) The Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the Transport Department (TD), the Government Property Agency (GPA) and the Leisure and Cultural Services Department (LCSD) which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. Locations of the car parks involved are tabulated at Annex 1. The expected number of charging facilities and estimated expenditure are as follows:

Year	No. of proposed additional medium public EV charging facilities	Estimated expenditure (\$m)
2019-20	About 170 medium chargers	17
2020-21	About 600 medium chargers	60
2021-22	About 430 medium chargers	43

Remark: The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

In addition to providing 7 kW medium chargers, the relevant expenditure is spent on laying cables, wires and conduits to provide sufficient power supply, as well as provision of smart meters, etc.

(7) Currently, the numbers of government car parks in various districts managed by the TD and the GPA, the numbers of their parking spaces installed with EV chargers and the respective percentages are as follows:

The public car parks managed by the TD, the total numbers of their PC parking spaces and the numbers of parking spaces installed with charging facilities as at December 2018:

	Car park	District	No. of PC parking spaces	No. of parking spaces installed with charging facilities	Percentage
1	Star Ferry Car Park	Central & Western	380	39	10.3%
2	City Hall Car Park		170	30	17.6%
3	Rumsey Street Car Park		835	35	4.2%
4	Kennedy Town Car Park		195	0	0%
5	Aberdeen Car Park	Southern	293	0	0%
6	Tin Hau Car Park	Wan Chai	429	38	8.9%
7	Shau Kei Wan Car Park	Eastern	386	35	9.1%
8	Yau Ma Tei Car Park	Yau Tsim Mong	770	40	5.2%
9	Sheung Fung Street Car Park	Wong Tai Sin	268	35	13.1%
10	Tsuen Wan Car Park	Tsuen Wan	545	30	5.5%
11	Kwai Fong Car Park	Kwai Tsing	552	0	0%
		Total	4 823	282	5.8%

The car parks managed by the GPA which are open for public use at designated hours, the total numbers of their PC parking spaces and the numbers of parking spaces installed with charging facilities as at December 2018:

	Car park	District	No. of PC parking spaces	No. of parking spaces installed with charging facilities	Percentage
1	Queensway Government Offices	Central & Western	163	20	12.3%
2	Wanchai Tower, Immigration Tower and Revenue Tower	Wan Chai	157	30	19.1%

	Car park	District	No. of PC parking spaces	No. of parking spaces installed with charging facilities	Percentage
3	Chai Wan Municipal Services Building	Eastern	39	0	0%
4	North Point Government Offices	North Point	95	15	15.8%
5	Cheung Sha Wan Government Offices	Sham Shui Po	250	30	12.0%
6	Shun Lee Disciplined Services Quarters	Kwun Tong	89	0	0%
7	Sai Kung Government Offices	Sai Kung	70	20	28.6%
8	Shatin Government Offices	Sha Tin	110	20	18.2%
9	Tai Po Government Offices	Tai Po	76	0	0%
10	North District Government Offices	North	105	15	14.3%
11	Yuen Long District Office Building	Yuen Long	47	0	0%
12	Tuen Mun Government Offices	Tuen Mun	42	0	0%
		Total	1 243	150	12.1%

(8) According to the TD, e-PCs only account for about 2% of the total number of registered PCs at present. Given the supplementary nature of charging facilities provided in the government car parks and the principle that users of EVs and all other vehicles should be treated alike for full utilisation of parking space resources, parking spaces installed with charging facilities are not designated for exclusive use by EVs. That said, contractors of the government car parks managed by the TD and the GPA which are open for public use will, depending on the utilisation situation of the car parks, arrange for traffic cones to be placed and notices to be displayed at parking spaces installed with charging facilities to reserve such spaces for priority use by EVs during non-peak hours whenever practicable.

The TD and the GPA received 20 and 2 complaints respectively about non-e-PCs parking at parking spaces installed with charging facilities in 2018. However, as mentioned above, these parking spaces installed with chargers are not for exclusive use of EVs.

The Government's planned locations for installation of EV chargers

Department		Location	<u>No. of EV chargers to be installed</u>
TD	1.	Aberdeen car park	About 690 in total
	2.	Kennedy Town car park	
	3.	Kwai Fong car park	
	4.	Shau Kei Wan car park	
	5.	Sheung Fung Street car park	
	6.	Tin Hau car park	
	7.	Tsuen Wan car park	
GPA	8.	North Point Government Offices	About 190 in total
	9.	Queensway Government Offices	
	10.	Shatin Government Offices	
	11.	North District Government Offices	
	12.	Tai Po Government Offices	
	13.	Yuen Long District Office Building	
	14.	Tuen Mun Government Offices	
	15.	Sai Kung Government Offices	
	16.	Cheung Sha Wan Government Offices	
	17.	Trade and Industry Tower	
LCSD	18.	Sun Yat Sen Memorial Park	About 310 in total
	19.	Sun Yat Sen Memorial Park Sports Centre	
	20.	Siu Sai Wan Sports Ground	
	21.	Island East Sports Centre	
	22.	Deep Water Bay Beach	
	23.	Ap Lei Chau Waterfront Promenade	
	24.	Wong Nai Chung Gap Children's Playground	
	25.	Hong Kong Heritage Museum	
	26.	Kowloon Bay Park	
	27.	Ping Shek Playground	
	28.	Shun Lee Tsuen Park	

Department		Location	<u>No. of EV chargers to be installed</u>
	29.	Lei Yue Mun Municipal Services Building	
	30.	Lai Chi Kok Park	
	31.	Sham Shui Po Sports Ground	
	32.	Cornwall Street Park	
	33.	Lung Cheung Road Lookout	
	34.	Hammer Hill Road Sports Ground	
	35.	Po Kong Village Road Park	
	36.	Kowloon Park	
	37.	Tung Chung Municipal Services Building	
	38.	Tsing Yi Southwest Leisure Building	
	39.	Tsing Yi Northeast Park	
	40.	Tsing Yi Sports Ground and Swimming Pool	
	41.	Kwai Chung Sports Ground	
	42.	Hing Fong Road Playground	
	43.	Sheung Shui Swimming Pool	
	44.	North District Sports Ground	
	45.	Wo Hing Sports Centre	
	46.	Po Wing Road Sports Centre	
	47.	Fanling Swimming Pool	
	48.	Tseung Kwan O Swimming Pool	
	49.	Tseung Kwan O Sports Ground	
	50.	Tiu Keng Leng Sports Centre	
	51.	Siu Lek Yuen Road Playground	
	52.	Sha Tin Sports Ground and Yuen Wo Playground	
	53.	Sha Tin Jockey Club Swimming Pool and Yuen Wo Road Sports Centre	
	54.	Sha Tin Town Hall	
	55.	Ma On Shan Swimming Pool	
	56.	Ma On Shan Sports Ground	
	57.	Yuen Chau Kok Complex	

Department		Location	<u>No. of EV chargers to be installed</u>
	58.	Tai Po Sports Ground	
	59.	Tai Po Complex	
	60.	Kwong Fuk Park	
	61.	Shing Mun Valley Swimming Pool	
	62.	Shing Mun Valley Sports Ground	
	63.	Tuen Mun North West Swimming Pool	
	64.	Tuen Mun Swimming Pool	
	65.	Yau Oi Sports Centre	
	66.	Yuen Long Swimming Pool	
	67.	Tin Shui Wai Swimming Pool & Tin Shui Wai Sports Centre	
	68.	Tin Shui Wai Sports Ground	
	69.	Tin Yip Road Park	
	70.	Fung Kam Street Sports Centre	

Remark:

The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

- End -

CONTROLLING OFFICER'S REPLY

ENB049

(Question Serial No. 1380)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding reduction of food waste, would the Government advise this Committee on the following:

1. The quantities of commercial and industrial as well as domestic food waste generated and their recovery rates in the past 5 years;
2. The quantities of food waste disposed of at landfills in the past 5 years;
3. The Government has launched 4 schemes, including the Food Waste Recycling Partnership Scheme, the Food Waste Reduction Activities, the Food Waste Recycling Projects in Housing Estates, and the food waste reduction and recycling projects under the Environment and Conservation Fund. What were the annual expenditures of the above schemes? What were the respective quantities of food waste recovered?
4. What is the plan to collect domestic food waste?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 26)

Reply:

(1) and (2)

The respective quantities of food waste (including domestic and commercial & industrial food waste) disposed of at landfills, generated and recovered from 2014 to 2017 are tabulated below. The Environmental Protection Department (EPD) does not have a breakdown of domestic and commercial & industrial food waste generated and recovered. The relevant statistics for 2018 are still under compilation.

Year	Domestic food waste	Commercial & industrial food waste	Overall municipal food waste		
	Daily quantity of disposal (tonnes) (a)	Daily quantity of disposal (tonnes) (b)	Daily quantity of disposal (tonnes) (c)=(a)+(b)	Daily quantity generated (tonnes)	Recovery rate
2014	2 608	1 033	3 640	3 659	0.5%
2015	2 397	985	3 382	3 420	1.1%
2016	2 326	1 274	3 600	3 643	1.2%
2017	2 363	1 299	3 662	3 702	1.1%

Note 1: The above figures may not add up to total due to rounding off.

(3) Since 2010, the EPD has been taking forward the “Food Waste Recycling Partnership Scheme” (the Partnership Scheme) with relevant commercial and industrial (C&I) organisations to promote good food waste management to the C&I sectors. Under the Partnership Scheme, the EPD collaborates with District Councils and non-profit-making organisations to hold “Food Waste Reduction Activities” which would last for 3 to 6 months in various shopping malls in different districts on a roving basis, so as to enhance public participation and promote food waste reduction at source to the C&I sectors

The annual quantities of C&I food waste recovered under the Partnership Scheme and “Food Waste Reduction Activities” and the expenditures involved in the past 5 years are as follows:

Year	Expenditure (\$m)	Quantity of food waste recovered (tonnes)
2014-15	0.63	293
2015-16	0.44	324
2016-17	0.56	431
2017-18	0.81	258
2018-19	0	30 ^(Note 2)

Note 2: The quantity of food waste recovered as at the end of June 2018. To tie in with the development of planning and works of Kowloon Bay Action Area, the Pilot Composting Plant in Kowloon Bay has stopped receiving food waste from the end of June 2018 and the associated “Food Waste Recycling Partnership Scheme” and “Food Waste Reduction Activities” have also ended accordingly.

Since 2011, the EPD has earmarked \$60 million through the Environment and Conservation Fund (ECF) to implement the “Food Waste Recycling Projects in Housing Estates” to support private housing estates to install food waste composters and organise educational and promotion activities to encourage public participation in food waste recycling, with a view to enhancing their awareness of food waste reduction and recycling. Up to December 2018, 35 housing estates were supported with total amount of approved funding of \$38 million. The quantities of food waste recycled and annual funding approved under these projects in the past five years are as follows:

“Food Waste Recycling Projects in Housing Estates”:

Year	Funding approved (\$m)	Quantity of food waste recovered^(Note 5)(tonnes)
2014-15	2.25	204
2015-16	1.97	292
2016-17	2.20	469
2017-18	1.78	485
2018-19	3.27 ^(Note 3)	342 ^(Note 4)

Note 3: The amount of funding approved as at the end of December 2018.

Note 4: The quantity of food waste recovered as at the end of January 2019.

Note 5: The figures do not necessarily represent the amount of food waste collected in the approved projects for that year. Since the housing estates had to make preparations, such as recruiting staff, arranging tenders for the rental of composters, after approval of the projects, food waste recovery activities might not be commenced in the same year. Moreover, the recipient housing estates had to carry on food waste recovery activities for 24 months, and the projects approved in earlier years would continue to recover food waste after commissioning. Hence, the relevant figures include those projects approved in earlier years and were still in operation.

In addition, the EPD also implemented food waste reduction and recycling projects under the “Community Waste Reduction Projects” funded by the ECF. The quantities of domestic food waste recovered and annual funding approved under the food waste reduction and recycling projects in the past 5 years are as follows:

Food waste reduction and recycling projects:

Year	Funding approved (\$m)	Quantity of food waste recovered (tonnes)
2014-15	3.59	194
2015-16	5.51	208
2016-17	0.86	170
2017-18	8.23	231
2018-19	3.71 ^(Note 6)	141 ^(Note 7)

Note 6: The amount of funding approved as at the end of December 2018.

Note 7: The quantity of food waste recovered as at the end of January 2019.

(4) The Government has commenced a study on territory-wide separation and collection of food waste from domestic and C&I sources. The consultant is currently collating and analysing information on local and overseas practices in the collection and delivery of food waste. The consultant will examine effective and feasible options for the collection and delivery of food waste, and based on Hong Kong’s actual circumstances and environment, formulate proposals on food waste collection and the necessary ancillary facilities in preparation for large-scale collection of food waste from domestic and C&I sources, and its delivery to relevant treatment facilities in future. The study is expected to be completed within 2019.

To promote proper recycling of food waste and achieve the target of turning waste to energy, the Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. The pilot scheme will mainly involve collection of C&I food waste. The EPD will allocate a portion of the treatment capacities of the Organic Resources Recovery Centre Phase 1 (O • PARK1) and the “food waste/sewage

sludge anaerobic co-digestion” trial scheme at the Tai Po Sewage Treatment Works (STW) to provide free collection and recycling services for a portion of the domestic food waste. Priority will be given to food waste from housing estates with experience in food waste separation and recycling, such as the 35 private housing estates having participated in the above “Food Waste Recycling Projects in Housing Estates” under the ECF. These housing estates have received funding support from the ECF for installing on-site food waste treatment facilities, organising relevant educational and promotional activities, and putting source separation and recycling of food waste into practice. We will also invite public housing estates which have implemented a food waste recycling trial scheme to join the pilot scheme on free food waste collection service.

Apart from that, we are planning to extend the “food waste/sewage sludge anaerobic co-digestion” trial scheme to cover the Sha Tin STW for commissioning in 2022. Having regard to the experience gained from the above pilot scheme, we will conduct a trial on collection of domestic food waste in Sha Tin to test the operational and facilitation requirement for carrying out separation at source, collection and recycling of domestic food waste at different types of private and public housing estates, villages and domestic/commercial buildings. We are seeking funding approval from the Legislative Council for construction of the Organic Resources Recovery Centre Phase 2 (ORRC2). Upon the commissioning of the ORRC2, we will not only be able to further extend the free food waste collection service to cover more C&I establishments, but will also allocate part of its treatment capacity to recycle the domestic food waste collected for free from the households and villages within the area.

The implementation schedule of the above free food waste collection services will largely depend on the completion dates of the food waste recycling facilities. With the gradual completion of such facilities in future, we plan to extend the food waste collection services to cover all districts and sectors in Hong Kong in a prompt manner.

- End -

CONTROLLING OFFICER'S REPLY**ENB050****(Question Serial No. 1381)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding local recycling, would the Government advise this Committee on the following information for the past 3 years:

1. What were the amounts of various types of recyclables, including waste electrical and electronic equipment, plastics and paper, imported/exported?
2. What were the local recovery rates of various types of recyclables?
3. What is the current recycling capacity of the EcoPark?
4. What are the estimated recycling capacities of the local recycling facilities in the coming five years?
5. What were the enforcement and prosecution actions taken against waste import/export offences?
6. How many projects have been funded by the Recycling Fund so far? What are the processed quantities involved for various types of recyclables?
7. Will a review on the operation of the Recycling Fund be conducted? If yes, what are the details? If no, what are the reasons?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 27)Reply:

1. The import and export statistics on various major types of recyclables⁽¹⁾ over the past 3 years (i.e. 2016 to 2018) are as follows:

Major type of recyclables⁽²⁾	Amount of import (million tonnes)	Amount of export⁽³⁾ (million tonnes)
Ferrous metals		
2016	0.24	1.35
2017	0.31	1.38
2018	0.30	1.29
Non-ferrous metals		
2016	0.16	0.21

Major type of recyclables⁽²⁾	Amount of import (million tonnes)	Amount of export⁽³⁾ (million tonnes)
2017	0.19	0.21
2018	0.25	0.34
Paper		
2016	0.01	0.82
2017	0.02	0.79
2018	0.10	0.72
Plastics		
2016	2.88	2.82
2017	1.89	1.79
2018	0.60	0.29

Notes: (1) Data source: The external merchandise trade statistics compiled by the Census and Statistics Department.

(2) Since waste electrical and electronic equipment (WEEE) does not have a corresponding commodity classification code under the current Hong Kong Harmonised System, the import and export statistics on WEEE are not available.

(3) Amount of export includes re-exports and domestic exports.

2. The statistics on the recovery rates of various major types of recyclables in 2016 and 2017 are as follows. The recovery rates of the major types of recyclables in 2018 are still being compiled.

Major type of recyclables	Recovery rate
Ferrous metals	
2016	92%
2017	91%
Non-ferrous metals	
2016	76%
2017	72%
Paper	
2016	50%
2017	46%
Plastics	
2016	14%
2017	13%
WEEE	
2016	74%
2017	65%

3. The quantities of recyclables processed at the EcoPark in the past 3 years are as follows:

Year	Total quantity processed⁽⁴⁾ (tonnes)
2016	182 000
2017	180 000
2018	213 000

Note (4): The total quantities are rounded to the nearest thousand.

4. Hong Kong relies heavily on service industries, and has very limited capacity to utilise raw or recycled materials in local production. As a result, local recyclables have mainly been for export and their value and outlets have been dictated by the condition of the market outside Hong Kong for many years.

Apart from offering assistance to the tenants of the EcoPark and some private recyclers mainly engaged in the business of exporting recyclables or turning recyclables into raw materials for export, the Government also builds different recycling facilities or supports the recycling and processing of recyclables through legislation so as to create a circular economy. For example, on food waste recycling, the Organic Resources Recovery Centre (ORRC) Phase 1 (O • PARK1), which can process up to 73 000 tonnes of food waste per year, commenced operation in July 2018. The ORRC Phase 2, which can process up to 110 000 tonnes of food waste per year, is expected to commence operation in 2022 at the earliest, subject to the progress of funding approval by the Legislative Council. Meanwhile, the Environmental Protection Department (EPD) is working with the Drainage Services Department to examine the use of existing and planned sewage treatment works to take forward the “food waste/sewage sludge anaerobic co-digestion” trial schemes (Trial Schemes) in order to expedite the enhancement of the overall food waste recycling capacity in Hong Kong. The Trial Schemes will first be implemented at the Tai Po Sewage Treatment Works and the Sha Tin Sewage Treatment Works, which are expected to be commissioned in the first half of this year and in 2022 respectively. Both facilities can process about 18 000 tonnes of food waste per year. Besides, with the full implementation of the producer responsibility scheme on waste electrical and electronic equipment (WEEE), WEEE generated in Hong Kong will be treated locally. As at early March 2019, the EPD has issued a total of 10 e-waste disposal licences, including the one issued to the WEEE • PARK, the treatment and recycling facility developed to underpin the scheme. According to the permitted treatment capacity stipulated in the relevant licences, a total of about 89 000 tonnes of waste regulated electrical equipment (REE) may be treated each year, turning them into resources. As for glass containers, the two glass management contractors engaged by the Government have been providing waste glass container collection and treatment services across the territory, with the aim of achieving progressively the target of an annual treatment quantity of 50 000 tonnes. The glass recyclables, after treatment, will be used for producing cement and eco-pavers, or as fill materials in various public works projects. The Government is also preparing for the introduction a producer responsibility scheme on plastic beverage containers so that some 45 000 tonnes of waste plastic beverage containers generated each year can be treated for recycling.

In parallel, the EPD is actively supporting the development of the local waste paper recycling industry to reduce the reliance on export of local waste paper. The EPD has

recently awarded a lease for 4 adjacent lots in the EcoPark to develop a local waste paper recycling and manufacturing plant capable of processing about 300 000 tonnes a year. The plant will commence design and construction in 2019 and is expected to commence operation in around 2022-23.

With the commissioning of the above facilities progressively, the overall processing capability and quantities of local recyclables processed will continue to rise.

5. Over the past 3 years (ie. 2016 to 2018), the EPD inspected some 2 000 container shipments at the ports and intercepted 146 illegal waste shipments, with 136 prosecutions completed so far. The total fine meted out by the Court amounts to some \$1.9 million. The types of illegal waste involved were mainly waste flat panel display units, disassembled printed circuit boards and waste batteries of notebook computers.

6. As at 28 February 2019, the Advisory Committee on Recycling Fund (RFAC) has received 525 applications, of which 220 approved, 73 rejected, 156 withdrawn by the applicant organisations of their own accord before vetting and 76 being processed. Excluding some approved projects which have been withdrawn by the applicant organisations, a total of 175 funded projects have been or will soon be commenced, involving a total funding of more than \$130 million, of which 26 are under the Enterprise Support Programme (ESP), 139 are for Standard Projects and 10 are under the Industry Support Programme (ISP). The processed quantities of recyclables involved in these projects are set out in the table below:

Type of recyclables	Processed quantity of approved projects⁽⁵⁾ (tonnes)
Construction waste	55 300
Waste metals	36 000
Food waste/Waste cooking oil	23 000
Waste Electrical and Electronic Equipment	9 600
Waste plastics	8 800
Waste tyres	2 800
Waste paper	2 800
Used furniture	1 000
Waste wood	900
Used clothes	400
Others (including compact discs, toner cartridges, beverage cartons and spent lubrication oil)	1 400
Total	142 000

Note (5): The figures are rounded to the nearest hundred.

7. The EPD and the RFAC have been striving to enhance the operation of the Recycling Fund so that it will better address the needs of the industry and support its development. Without compromising the need in safeguarding the use of the Recycling Fund and maintaining effective control on applicants, various facilitation measures have been

introduced progressively since the Fund's early stage of operation. These measures include providing partial reimbursement of expenses to successful applicants before the launch of the projects under the ESP and the ISP and establishing a category of Standard Projects under the ESP to minimise the administrative workload of small and medium enterprises (SMEs) in making applications. The SMEs undertaking Standard Projects can also submit applications, report achievements and seek reimbursements in accordance with a set of streamlined procedures. Besides, the RFAC has approved the waiving of a condition on opening a designated project bank account for Standard Projects, and can provide reimbursement midway through the project period.

We are now conducting a mid-term review of the operation of the Recycling Fund, which covers a comprehensive review of the overall operation of the Fund as well as collection of views from the recycling industry and various stakeholders regarding the existing arrangements of the Fund. The Fund introduced the first stage of enhancement measures in mid-January 2019, which mainly included:

- i. To introduce a new rental subsidy scheme to provide a maximum of 50% rental subsidy to encourage recyclers relocating their existing operations to more appropriate venues. For example, they can relocate from street shops at ground level to industrial buildings, or from recycling sites located in inappropriate zones to industrial buildings or lands zoned for industrial purpose;
- ii. To extend the scope of rental expenses subsidy under the current ESP from rental expenses incurred from newly rented premises to rental expenses incurred from the existing premises, with a funding support cap of \$40,000 per month or 20% of the total funding amount (whichever is lower);
- iii. To increase the maximum upfront payment for ESP projects from 15% to 30% of the total funding amount to improve grantees' cash flow during the early phase of the projects;
- iv. To merge the existing Standard Project - \$150,000 and Standard Project - \$1M into one new programme named Standard Project - \$1M, with a funding ceiling of \$1,000,000, and to update the prescribed equipment list timely in response to the needs of the industry so as to simplify the application process for recyclers to make the best use of the Fund;
- v. To streamline the workflow to expedite payment of the approved funding amount to grantees of Standard Projects; and
- vi. To further reduce the grantees' administrative workload, including relaxing the covering period requirements for the baseline quantity survey of the projects and the frequency of submitting progress reports.

We will continue with the mid-term review and plan to introduce the next stage of enhancement measures as soon as possible so that the Fund can provide more appropriate support for the industry.

- End -

CONTROLLING OFFICER'S REPLY**ENB051****(Question Serial No. 1382)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding reduction of plastics, would the Government advise this Committee on the following:

1. The quantities of plastics generated and their recovery rates in the past 5 years;
2. The percentage of plastic tableware in the waste plastics disposed of in the past 5 years;
3. The percentage of plastic bags in the waste plastics disposed of in the past 5 years;
4. The Government is studying the implementation of the control on disposable plastic tableware. What are the details?
5. The Government is studying the introduction of a 2-year pilot scheme to collect household waste plastics. What are the details?
6. What are the details of the pilot scheme on reverse vending machine to be launched by the Government? How will the plastic bottles collected be handled?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 28)Reply:

1. According to the reports on "Monitoring of Solid Waste in Hong Kong" compiled by the Environmental Protection Department (EPD), the statistics on the quantities of waste plastics generated and their recovery rates between 2013 and 2017 are shown in the table below. The relevant statistics for 2018 are still under compilation.

Year	Waste plastics	
	Quantity generated (thousand tonnes)	Recovery rate
2013	924	26%
2014	834	12%
2015	891	11%
2016	906	14%
2017	891	13%

2. & 3. According to the reports on “Monitoring of Solid Waste in Hong Kong” compiled by the EPD, the percentages of plastic dining wares (including polyfoam dining wares) and plastic bags in the waste plastics disposed of between 2013 and 2017 are shown in the table below. The relevant statistics for 2018 are still under compilation.

Year	Percentage in waste plastics disposed of	
	Plastic dining wares (including polyfoam dining wares)	Plastic bags
2013	8%	34%
2014	8%	33%
2015	8%	30%
2016	9%	32%
2017	10%	37%

4. We are concerned about the environmental impacts brought by disposable plastic tableware, and have been paying close attention to the research and development in other countries or places on the control of disposable plastic tableware. We are commencing a study on the feasibility, scope and mechanism of controlling or banning disposable plastic tableware. The EPD will consider possible control measures for disposable plastic tableware in Hong Kong in the long run, including the scope and means of control or ban, the applicable substitutes as well as the appropriate regulatory mechanism. Since circumstances and environment may vary across countries or places, we will draw reference from specific situations worldwide on the control of disposable plastic tableware and their means of implementation, and consult the relevant trades and stakeholders. Based on the findings of our study and analysis, we will draw up a proposal that is suitable for implementation in Hong Kong in the long run. The study is scheduled for completion in 2020.

5. The EPD plans to roll out a 2-year Pilot Scheme on Collection and Recycling Services of Waste Plastics in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin) to provide free collection service for waste plastics from non-commercial and non-industrial (non-C&I) sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts, with a view to gaining practical experience before expanding the service to the whole territory. The EPD will hire contractors through service contracts to collect waste plastics direct from the above-mentioned premises for further treatment in recycling process, including sorting, shredding, cleaning and melting, then produce recycled raw materials or products to be exported or supplied to the local market so as to ensure that the waste plastics collected are properly handled. The EPD is tendering the waste plastics collection service contract of the Eastern District, with a view to gradually rolling out the services this year. We will also invite tenders for waste plastics collection service in Kwun Tong and Sha Tin districts one after another later.

6. The EPD is preparing for the implementation of a pilot scheme on the application of reverse vending machine (RVM), and will assess its performance and effectiveness in collecting waste plastic beverage containers, as well as the operational arrangements for storing and transporting the plastic bottles collected to local recyclers for further processing.

Our initial plan is to place a total of 50 to 60 RVMs at different locations in the second half of 2019, primarily at public places or government facilities with higher pedestrian flow. Through the pilot scheme, the EPD will also assess the appropriate incentive and the level that should be provided having regard to the recommendations put forward by the consultant commissioned to study the feasibility of introducing the producer responsibility scheme for plastic product containers. The EPD is now undertaking the preparatory work to work out the specific details of the pilot scheme, including ensuring the waste plastic beverage containers collected will be delivered to suitable recyclers for proper treatment and recycling.

- End -

CONTROLLING OFFICER'S REPLY**ENB052****(Question Serial No. 1384)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

With regard to the 3 strategic landfills in operation, would the Government inform this Committee of the following information for the past 3 years:

1. Please tabulate the quantities (tonnes) of various types of waste received by the 3 strategic landfills each year.
2. Please tabulate the quantities (tonnes) and proportion of waste delivered by land and by sea (if any) to the 3 strategic landfills each year, and the number of refuse collection vehicle trips entering the 3 strategic landfills per day.
3. Please set out the number of complaints about various kinds of pollution (including odour, noise, wastewater, hygiene, etc.) received each year relating to the 3 strategic landfills, investigation and follow-up actions, as well as whether any prosecutions have been made in respect of the complaints.

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 31)Reply:

1. The quantities of various types of waste received by the 3 strategic landfills in Hong Kong in the past 3 years are tabulated below:

Year	North East New Territories (NENT) Landfill (tonnes per day on average)			South East New Territories (SENT) Landfill (tonnes per day on average)			West New Territories (WENT) Landfill (tonnes per day on average)		
	Municipal Waste	Overall Construction Waste	Special Waste	Municipal Waste	Overall Construction Waste	Special Waste	Municipal Waste	Overall Construction Waste	Special Waste
2016	2 923	920	176	17 ⁽²⁾	2 482	0 ^{(1),(2)}	7 405	1 020	389
2017	3 117	1 160	213	0 ⁽²⁾	2 300	0 ⁽²⁾	7 616	747	363
2018	3 487	1 317	242	0 ⁽²⁾	2 140	0 ⁽²⁾	7 940	624	345

Notes:

(1) 0 means the quantity is less than 0.5 tonnes per day on average.

(2) Since 6 January 2016, the SENT Landfill has only received construction waste. Therefore the average daily quantity of municipal waste and special waste disposed of at the SENT Landfill in 2016 is calculated based on the total intake quantity from 1 January 2016 to 5 January 2016 divided by the total number of days in the year.

2. The quantities and proportion of waste delivered by land and by sea to the 3 strategic landfills, and the number of refuse collection vehicle trips entering the 3 strategic landfills per day in the past 3 years are tabulated below:

Year	NENT Landfill		SENT Landfill		WENT Landfill ⁽²⁾			Total (tonnes per day on average)
	By land		By land		By land		By sea	
	(tonnes per day on average)	(no. of vehicle trips per day on average)	(tonnes per day on average)	(no. of vehicle trips per day on average) ⁽³⁾	(tonnes per day on average) (%)	(no. of vehicle trips per day on average)	(tonnes per day on average) (%)	
2016	4 019	609	2 500	523	3 137 (36%)	348	5 677 (64%)	8 814
2017	4 490	664	2 300	551	2 942 (34%)	317	5 784 (66%)	8 726
2018	5 046	743	2 140	493	3 103 (35%)	340	5 806 (65%)	8 909

Notes:

(1) The figures in the table above have been rounded off.

(2) Only the WENT Landfill received waste delivered by sea.

(3) Since 6 January 2016, the SENT Landfill has only received construction waste.

3. The numbers and types of environmental complaints related to the 3 strategic landfills received by the Environmental Protection Department (EPD) in the past 3 years are set out below:

NENT Landfill

Year	Number of complaints by type				
	Air	Noise	Wastewater	Waste	Miscellaneous
2016	0	0	0	0	0
2017	0	0	1	0	0
2018	0	0	0	0	0

SENT Landfill

Year	Number of complaints by type				
	Air	Noise	Wastewater	Waste	Miscellaneous
2016	5	0	5	1	1
2017	49	0	0	1	0
2018	8	0	0	0	0

WENT Landfill

Year	Number of complaints by type				
	Air	Noise	Wastewater	Waste	Miscellaneous
2016	16	0	0	1	4

2017	25	1	0	0	0
2018	8	0	4	0	4

The EPD investigated into each of the complaints received and followed up the cases in accordance with the law. Regarding the 2 complaints about muddy water found in waters off the Tseung Kwan O Industrial Estate in 2016, the EPD initiated prosecution against the contractor of the SENT Landfill after investigation. Although the contractor was not convicted by court due to insufficient evidence, the EPD exercised the relevant contractual provisions to deduct the operation payments against the contractor for non-compliance with operation and environmental performance as stipulated in the landfill contract. Besides, there was an incident of leakage of wastewater from the WENT Landfill to the Tai Shui Hang River in 2018. The EPD also initiated prosecution against the contractor and the project manager of the Landfill after investigation. The judicial proceedings are still in progress.

- End -

CONTROLLING OFFICER'S REPLY**ENB053****(Question Serial No. 1385)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the 7 refuse transfer stations (RTSs) being in operation, would the Government advise this Committee on the following for the past 3 years:

1. Please list in tabular form the average amount (tonnes) of waste received by the 7 RTSs each year.
2. Please list in tabular form the number of vehicular trips of refuse collection vehicles and waste-loaded container trucks to/from the 7 RTSs each year.
3. Has the Administration received any complaints about the RTSs each year? If yes, what were the number and types of complaints? Has the Administration conducted investigations, taken follow-up actions and instituted prosecutions in respect of these complaints?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 32)Reply:

- (1) The amounts of municipal solid waste (MSW) received by the refuse transfer stations (RTSs) over the past 3 years are tabulated below:

RTSs	Daily average of MSW received (tonnes) ^(b)		
	2016	2017	2018
West Kowloon ^(a)	2 665	2 681	2 700
Shatin	1 369	1 503	1 655
Island East	1 175	1 194	1 225
Island West	1 111	1 161	1 153
North West New Territories	1 165	1 211	1 260
North Lantau	635	636	659
Outlying Islands ^(a)	84	87	90

Note: (a) Apart from MSW, the West Kowloon Transfer Station also received on average about 371 (in 2016), 471 (in 2017) and 499 (in 2018) tonnes per day of grease trap waste. Besides, the Outlying Islands Transfer Facilities also received on average about 45 (in 2016), 45 (in 2017) and 47 (in 2018) tonnes per day of construction waste.

(b) Figures are rounded to the nearest whole number.

- (2) The daily average numbers of vehicular trips of refuse collection vehicles (RCVs) delivering MSW to the RTSs over the past 3 years are tabulated below:

RTSs	Daily average number of vehicular trips of RCVs delivering MSW to RTSs ^(d)		
	2016	2017	2018
West Kowloon	671	670	671
Shatin	316	354	387
Island East	277	281	289
Island West	258	276	282
North West New Territories	257	263	275
North Lantau	122	125	128
Outlying Islands	119	143	137

The daily average numbers of vehicular trips of container trucks delivering MSW from the RTSs to landfills by land over the past 3 years are tabulated below:

RTSs ^(c)	Daily average number of vehicular trips of container trucks delivering waste from RTSs to landfills ^(d)		
	2016	2017	2018
Shatin	60	67	74
North West New Territories	57	59	61

Note: (c) Only the Shatin Transfer Station and the North West New Territories RTS delivered waste to landfills by land using container trucks. Other RTSs delivered waste to landfills by sea.

(d) Figures are rounded to the nearest whole number.

- (3) The numbers and types of complaints about the RTSs received by the Environmental Protection Department (EPD) over the past 3 years are set out below:

Year	Numbers and types of complaints on the RTSs				
	Air	Noise	Wastewater	Waste	Miscellaneous
2016	21	0	2	0	2

2017	10	10	1	0	0
2018	11	2	0	0	0

The EPD has investigated each of the above complaints received, and has not found any violations of environmental legislation or provisions on operation in the relevant contracts.

- End -

CONTROLLING OFFICER'S REPLY

ENB054

(Question Serial No. 1386)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) has been implemented since August 2018. However, quite a number of members of the public have relayed to me that abandoned regulated electrical equipment (REE) were omnipresent on the streets, and the service provided by the service operator was unsatisfactory. In this connection, would the Government advise this Committee on the following:

1. Please set out in tabular form the design capacity of the plant in processing various types of REE;
2. Please set out the quantities of REE processed by the Government-commissioned operator since its establishment by type of REE;
3. What was the number of complaints received by the Government about the service provided by the service operator?
4. How many local licensed operators that process REE are there at present? What are their processing capacities?
5. What are the details of the review(s) on the plant since its operation? Will the Government review the mode of subsidising?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 33)

Reply:

1. The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) has been fully implemented. The Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK), developed by the Government to underpin the WPRS, commenced initial operation in late October 2017 and came into full operation in March 2018. The total design capacity of the WEEE • PARK is about 30 000 tonnes of waste regulated electrical equipment (REE) (i.e. air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors) per year, roughly half of the amount of waste REE generated in Hong Kong every year. If

necessary, appropriate adjustment can be made to the processing lines of the plant to increase their capacity to properly treat the waste REE generated locally.

2. In 2018, the WEEE • PARK processed a total of about 10 830 tonnes of waste REE. The breakdown is as follows:

Waste REE	Amount processed (tonnes) in 2018
Television	1 270
Refrigerator	2 230
Air-conditioner	1 420
Washing machine	4 595
Computer and computer products	1 315
Total	10 830

3. Since the implementation of the WPRS on 1 August 2018 (i.e. commencement of the statutory mandatory requirements for sellers to provide removal service for old REE) and up to the end of December 2018, the WEEE • PARK processed a total of about 83 700 collection service requests, and the Environmental Protection Department (EPD) has received a total of 25 complaints about the service provided by the operator appointed by the Government.

4. As at early March 2019, the EPD has issued a total of 10 waste disposal licences for REE (including the WEEE • PARK operator). According to the permitted capacity stipulated in the licences, a total of about 89 000 tonnes of waste REE can be processed a year.

5. The WEEE • PARK has been running smoothly since its operation. It is capable of processing the waste REE collected. With the full implementation of the WPRS, the waste REE generated in Hong Kong will be processed locally, which will provide more business opportunities for the recycling industry. We will consider how to further encourage the participation of the recycling industry in the recycling and treatment of REE having regard to market development, with a view to promoting a circular economy in Hong Kong.

- End -

CONTROLLING OFFICER'S REPLY

ENB055

(Question Serial No. 1387)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the work on vehicle emission reduction, would the Government inform this Committee of the following information for the past 3 years:

1. What were the percentages of the emissions from different types of vehicles in the total vehicle emissions?
2. Please list in tabular form the types and numbers of buses owned by various franchised bus companies on a yearly basis.
3. Please provide data on the age of the existing buses.
4. What is the effectiveness of the franchised bus low emission zones?
5. What are the number of vehicles expected to be involved and details of the scheme for progressively phasing out Euro IV diesel commercial vehicles by the end of 2023?
6. What is the effectiveness of the trials under the Pilot Green Transport Fund? What are the review measures?
7. Since the Environmental Protection Department used roadside sensing equipment to detect vehicle emissions, what is the average number of vehicles issued with an Emission Testing Notice each month? Please provide a breakdown of figures by vehicle type.

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 34)

Reply:

Commercial vehicles, including goods vehicles, buses, light buses and taxis, account for about 20% of the total vehicle fleet in terms of number, but are key emission sources of air pollutants at the roadside, accounting for about 95% of the total vehicular emissions of respirable suspended particulates and nitrogen oxides in Hong Kong. Hence, these vehicles have all along been a major target of the Government's measures to improve roadside air quality. With the implementation of emission control measures on vehicles by the Government in recent years, roadside concentrations of key air pollutants have decreased by about 30% from 2013 to 2018.

1. The Environmental Protection Department (EPD) compiles the Hong Kong Air Pollutant Emission Inventory every year to analyse the distribution and trends of major air

pollution sources in Hong Kong. The vehicle emission inventory for 2017 is still under compilation. The estimated percentages of emissions from different types of vehicles in the total vehicle emissions from 2014 to 2016 are tabulated as follows:

Year	Vehicle type	Percentage in the air pollutant emissions [#]				
		Respirable suspended particulates (RSP)	Fine suspended particulates (FSP)	Nitrogen oxides (NO _x)	Volatile organic compounds (VOC)	Carbon monoxide (CO)
2014	Motorcycle	1%	1%	1%	58%	13%
	Taxi	0%	0%	16%	5%	32%
	Private car	4%	4%	3%	17%	21%
	Light goods vehicle	20%	20%	15%	4%	3%
	Medium & heavy goods vehicle	44%	44%	31%	6%	6%
	Private light bus	1%	1%	1%	1%	2%
	Public light bus	12%	12%	4%	6%	19%
	Non-franchised bus	7%	7%	8%	2%	2%
	Franchised bus	12%	12%	21%	1%	3%
Total in 2014		100%	100%	100%	100%	100%
2015	Motorcycle	1%	1%	1%	62%	12%
	Taxi	0%	0%	18%	4%	34%
	Private car	5%	5%	3%	17%	22%
	Light goods vehicle	19%	19%	14%	3%	3%
	Medium & heavy goods vehicle	41%	41%	31%	5%	6%
	Private light bus	1%	1%	1%	1%	2%
	Public light bus	10%	10%	4%	6%	16%
	Non-franchised bus	9%	9%	8%	2%	2%
	Franchised bus	15%	15%	20%	1%	3%
Total in 2015		100%	100%	100%	100%	100%

Year	Vehicle type	Percentage in the air pollutant emissions [#]				
		Respirable suspended particulates (RSP)	Fine suspended particulates (FSP)	Nitrogen oxides (NOx)	Volatile organic compounds (VOC)	Carbon monoxide (CO)

2016	Motorcycle	1%	1%	1%	65%	11%
	Taxi	0%	0%	19%	4%	36%
	Private car	6%	6%	3%	15%	21%
	Light goods vehicle	18%	18%	15%	2%	3%
	Medium & heavy goods vehicle	37%	37%	29%	4%	5%
	Private light bus	1%	1%	1%	1%	2%
	Public light bus	9%	9%	5%	6%	17%
	Non-franchised bus	10%	10%	8%	2%	2%
	Franchised bus	18%	18%	20%	1%	3%
Total in 2016		100%	100%	100%	100%	100%

Remark: [#] May not add up to 100 due to rounding.

2. & 3.

The number and average age of licensed buses owned by each franchised bus company (FBC) in Hong Kong in the past 5 years are tabulated by vehicle emission standard as follows:

Bus company	Category	End 2014	End 2015	End 2016	End 2017	End 2018
		Number of buses	Number of buses	Number of buses	Number of buses	Number of buses
The Kowloon Motor Bus Company (1933) Limited	Pre-Euro	0	0	0	0	0
	Euro I	161	0	0	0	0
	Euro II	1 546	1 157	705	395	113
	Euro III	1 097	1 097	1 096	1 092	1 039
	Euro IV	106	106	106	93	93
	Euro V	939	1 522	2 003	2 369	2 827
	Euro VI (including hybrid bus)	3	3	3	4	5
	Electric bus	0	3	3	14	17
	Sub-total		3 852	3 888	3 916	3 967

Bus company	Category	End 2014	End 2015	End 2016	End 2017	End 2018
		Number of buses	Number of buses	Number of buses	Number of buses	Number of buses
	Average age	11.0	9.3	8.1	7.5	6.9

Bus company	Category	End 2014	End 2015	End 2016	End 2017	End 2018
		Number of buses	Number of buses	Number of buses	Number of buses	Number of buses
Citybus Limited (Franchise for Hong Kong Island and Cross-Harbour Bus Network)	Pre-Euro	0	0	0	0	0
	Euro I	12	0	0	0	0
	Euro II	270	170	50	0	0
	Euro III	9	9	9	9	9
	Euro IV	28	28	28	23	24
	Euro V	460	550	672	698	679
	Euro VI (including hybrid bus)	2	2	2	2	27
	Electric bus	-	3	6	6	6
	Sub-total	781	762	767	738	745
	Average age	7.6	6.2	4.4	4.1	4.9
Citybus Limited (Franchise for the Airport and North Lantau Bus Network)	Pre-Euro	0	0	0	0	0
	Euro I	0	0	0	0	0
	Euro II	105	81	26	1	0
	Euro III	0	0	0	0	0
	Euro IV	0	0	0	0	0
	Euro V	71	101	153	205	221
	Euro VI (including hybrid bus)	0	0	0	0	12
	Electric bus	0	0	0	0	0
	Sub-total	176	182	179	206	233
	Average age	10.1	8.5	4.3	2.5	3.0
New World First Bus Services Limited	Pre-Euro	0	0	0	0	0
	Euro I	13	0	0	0	0
	Euro II	487	388	267	84	10
	Euro III	75	75	74	74	34
	Euro IV	38	38	38	38	38
	Euro V	97	216	307	496	512
	Euro VI (including hybrid bus)	1	1	1	6	64
	Electric bus	0	2	4	4	4
	Sub-total	711	720	691	702	662
	Average age	13.1	11.3	9.7	5.9	4.3
Long Win Bus Company Limited	Pre-Euro	0	0	0	0	0
	Euro I	0	0	0	0	0
	Euro II	46	31	1	0	0
	Euro III	18	18	18	18	17
	Euro IV	32	32	32	31	32
	Euro V	83	109	191	192	208
	Euro VI (including hybrid bus)	0	0	0	0	0
	Electric bus	0	0	0	4	4
	Sub-total	179	190	242	245	261
	Average age	6.7	5.9	3.3	4.1	4.8

Bus company	Category	End 2014	End 2015	End 2016	End 2017	End 2018
		Number of buses	Number of buses	Number of buses	Number of buses	Number of buses
New Lantao Bus Company (1973) Limited	Pre-Euro	0	0	0	0	0
	Euro I	0	0	0	0	0
	Euro II	2	2	0	0	0
	Euro III	61	54	38	31	17
	Euro IV	17	26	26	23	23
	Euro V	31	41	57	70	113
	Euro VI (including hybrid bus)	0	0	0	0	0
	Electric bus	0	0	0	0	2
	Sub-total	111	123	121	124	155
	Average age	7.5	7.6	7.4	7.8	5.9

4. In the busy corridors in Central, Causeway Bay and Mong Kok, franchised buses could account for up to 40% of the traffic flow. Setting up franchised bus low emission zones (FBLEZs) by allowing only low emission franchised buses to access can bring improvement to the roadside air quality not only within the FBLEZs, but also the districts that the low emission buses will ply. The Government has set up FBLEZs in these 3 areas since 31 December 2015 allowing only low emission buses (i.e. buses meeting Euro IV or higher emission standards or Euro II and III buses retrofitted with selective catalytic reduction devices and diesel particulate filters) to ply the routes running through the FBLEZs. At present, more than 99% of the buses passing through the FBLEZs are low emission buses. The statistics on the FBLEZs for the past 3 years are as follows:

Time	Average monthly number of bus trips passing through the 3 FBLEZs	Average monthly number of bus trips served by temporarily deployed non-low emission buses in FBLEZs*	Compliance rate
Average for 2016	642 882	5 779	99.1%
Average for 2017	620 282	1 857	99.7%
Average for 2018	613 621	1 439	99.8%

Remark: *In case of situations such as traffic congestion, vehicle breakdown, traffic accidents and provision of extra services on an ad hoc basis, FBCs may need to deploy non-low emission buses to operate in FBLEZs occasionally in order to maintain normal bus service.

5. To continuously improve roadside air quality, the EPD plans, by making reference to the existing scheme of phasing out pre-Euro IV diesel commercial vehicles (DCVs), to adopt an incentive-cum-regulatory approach to progressively phase out about 40 000 Euro IV DCVs by the end of 2023 on a mandatory basis (see Annex 1), and grant an ex-gratia payment to owners who scrap and de-register their Euro IV DCVs by the specified deadlines. After the specified deadlines, the licences of relevant DCVs will not be renewed. We are drafting the details of the scheme (such as the ex-gratia payment level,

deadlines for phasing out the vehicles, etc.) and will consult the trade in due course. We are striving to report the detailed arrangements to the Advisory Council on the Environment and the Panel on Environmental Affairs of the Legislative Council in late 2019/early 2020 after working out the implementation details and consulting the trade.

6. The Government has put in place a \$300 million Pilot Green Transport Fund (the Fund) since March 2011 to encourage the public transport sectors (including taxis, public light buses, buses and ferries), goods vehicle operators and charitable/non-profit-making organisations to test out green innovative transport technologies. As at the end of February 2019, the Fund approved 139 trials⁴ with a total subsidy of about \$139 million. They included 74 trials of electric vehicles (EVs) and 57 trials of hybrid vehicles, involving 105 EVs (77 light goods vehicles, 21 single deck buses, 3 light buses, 3 taxis and 1 medium goods vehicle (tractor)) and 89 hybrid vehicles (48 light goods vehicles, 28 medium goods vehicles, 11 light buses and 2 single-deck buses). The current trial results of various types of technologies are as follows:

EVs

According to the current trial results, high production cost, limited service life, long charging time and/or low energy density of the batteries of electric commercial vehicles (e-CVs) on the local market are the key constraints for e-CVs to become popular. The hilly terrain in Hong Kong and the need to provide air-conditioning during summer driving also reduce the driving range of e-CV batteries. Therefore, most of the e-CVs on trial are yet to be able to cope with the requirements of the local transport sectors in respect of driving range and charging time. All the 3 electric taxis that were once trialed under the Fund have been re-registered as private cars after completion of the trials because taxis generally run almost a whole day and under normal operation cannot spare 4 hours a day for charging. Electric light buses and single-deck buses also have experienced similar problems. The electric light buses and single-deck buses trialed under the Fund, after a full charge for 4 hours, had a driving range lower than the respective daily mileages of a typical public light bus and a typical single-deck bus.

The trial results also showed that e-LGVs are more likely to prevail than other e-CVs in Hong Kong and are suitable for operators who require relatively lower daily mileage and payload because batteries of these vehicles can be topped up outside operation hours. We have organised experience sharing workshops for the transport sectors suitable for adopting this vehicle type to promote the use of e-LGVs.

For those e-CVs trialed under the Fund, they could save 31% to 91% of their energy cost on an individual vehicle basis as compared with their conventional counterparts.

Hybrid vehicles

Hybrid vehicles can operate without charging up their batteries by an external source, so their operation is similar to that of conventional vehicles. The transport sectors have thus

⁴ As an applicant who was approved to trial electric light goods vehicle (e-LGV) withdrew his application due to his own business reasons, the number of applications approved was 1 short of the 140 reported in the discussion paper (LC Paper No. CB(1)487/18-19(03)) of the Panel on Environmental Affairs of the Legislative Council dated 28 January 2019.

less doubt about trialing hybrid commercial vehicles under the Fund. However, the hybrid commercial vehicle models on the local market are limited, with only 2 hybrid light goods vehicle models, 2 hybrid medium goods vehicle models, 1 hybrid light bus model and 1 hybrid single-deck bus model, all of which have already been trialed under the Fund.

Higher fuel economy is the major merit of hybrid vehicles over the conventional vehicles, thereby reducing operating cost and air pollutants emissions. However, the fuel economy of a hybrid vehicle depends on the operation routes. A route requiring frequent start-stop will harness better the hybrid drive-train. If a route is dominated by highway driving, a hybrid vehicle can hardly outperform its conventional counterpart in fuel economy. The trial results showed that the hybrid goods vehicles incurred fuel cost saving ranging from 4% to 32% as compared with their conventional counterparts whilst the corresponding figure for the hybrid light buses was not more than 4%. The latter had a poorer fuel economy performance which might be caused by inadequate cooling for their batteries. A new model has been introduced by the manufacturer of the hybrid light buses to replace its old model and is being trialed under the Fund.

The EPD will continue to keep in view the development of various green innovative transport technologies and encourage the transport sectors to make use of the Fund to try out other green innovative transport technologies and other suppliers to introduce more products to the local market. Moreover, the EPD is reviewing the scope of the Fund to further facilitate wider use of green innovative transport technologies by the transport sectors, and will consult the trades, stakeholders and the Panel on Environmental Affairs of the Legislative Council after drawing up details of the review contents and the relevant proposals, with the aim of completing the review in 2019.

7. The EPD has been using mobile roadside remote sensing equipment to identify petrol and liquefied petroleum gas vehicles emitting excessively since 1 September 2014. As at the end of February 2019, some 3.08 million vehicle counts have been monitored and 17 385 emission testing notices (ETNs) have been issued under the scheme. The average monthly number of ETNs (by vehicle type) issued by this Department since the implementation of the scheme is as follows:

Vehicle type	Average monthly no. of ETNs issued
Light goods vehicle	1
Private car	88
Light bus	18
Taxi	215

Number of registered Euro IV DCVs

Vehicle type	No. of registered Euro IV DCVs (as at 28 February 2019)
Light goods vehicle	23 530
Medium goods vehicle	11 507
Heavy goods vehicle	1 500
Light bus	677
Non-franchised bus	2 575
Total	39 789

Note: The first registration dates of vehicles are used to distinguish Euro IV vehicles.

- End -

CONTROLLING OFFICER'S REPLY

ENB056

(Question Serial No. 1393)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding promotion of environmental protection by government departments, would the Government advise this Committee on the following for the past five years:

- i. the amount of paper procured by government departments each year, among which the amount and percentage of recycled paper, as well as the respective amount of expenditure;
- ii. the expenditure for green procurement of various types of materials, and its percentage in the total material cost;
- iii. the main regions from which the environmental products procured were imported;
- iv. the measures taken by government departments to take the lead in promoting environmental protection.

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 43)

Reply:

- i. The details of the A3 and A4 paper procured by the Government Logistics Department for government bureaux/departments in the past 5 years are as follows:

Contract period	Item	Estimated quantity (Ream [#])	contracted	Contract amount (HK\$)
1 April 2013 to 31 March 2015	A. Woodfree paper*			
	A3		19 500	760,500.00
	A4		1 065 000	20,554,500.00
	B. Recycled paper			
	A3		69 000	2,967,000.00
	A4		2 930 000	62,995,000.00
1 April 2015 to 31 May 2017	A. Woodfree paper*			
	A3		23 000	887,800.00
	A4		1 146 306	22,123,705.80
	B. Recycled paper			
	A3		73 000	2,876,200.00
	A4		2 951 038	58,135,448.60
26 May 2017 to 25 May 2019	A. Woodfree paper*			
	A3		20 000	600,000.00
	A4		990 000	14,850,000.00
	B. Recycled paper			
	A3		84 000	2,814,000.00
	A4		3 289 000	54,926,300.00

There are 500 pieces of paper in one ream.

* The paper pulp of the woodfree paper procured is from sustainably managed forests and has no recycled content.

ii. The expenditures of government departments on green procurement in 2018 are still being compiled. The expenditures from 2014 to 2017 by categories are tabulated below:

Materials	Expenditure (HK\$)			
	2014	2015	2016	2017
Agriculture and horticulture	-	244,000	6,200,000	6,295,000
Building and construction supplies	2,756,000	2,217,000	9,405,000	35,017,000
Cleansing products	4,745,000	4,616,000	12,779,000	4,361,000
Computer equipment and products	100,836,000	132,549,000	65,524,000	188,164,000
Distilled water	-	78,000	437,000	5,838,000
Electrical and gas appliances and light fittings	35,363,000	23,786,000	68,122,000	78,663,000
Fuel oils and hydrocarbon lubricants	532,551,000	55,550,000	200,634,000	7,206,000
Furniture	42,834,000	16,728,000	27,621,000	27,590,000
General stores and general services	-	65,000	1,086,000	2,943,000
Household goods	5,222,000	6,912,000	4,982,000	1,460,000
Office equipment	8,984,000	7,733,000	10,894,000	13,879,000
Packaging materials	-	224,000	1,870,000	1,433,000
Paper for printing and photocopying	37,639,000	113,411,000	25,989,000	113,419,000
Paper products other than for printing and photocopying	28,392,000	31,234,000	30,062,000	35,759,000
Plastic and rubber products	23,205,000	31,074,000	21,688,000	36,031,000
Printing and publishing supplies	3,082,000	1,156,000	2,351,000	192,000
Shoes and boots	3,474,000	5,910,000	19,085,000	20,831,000
Stationery and office supplies	102,708,000	113,194,000	132,309,000	163,995,000
Telecommunication equipment and spares	19,745,000	35,324,000	16,157,000	26,137,000
Textile materials and garment	104,051,000	80,505,000	104,581,000	82,679,000
Transportation services	-	5,235,000	172,342,000	145,069,000

Vehicles and spare parts	465,381,000	326,891,000	191,636,000	181,339,000
Water using equipment	-	227,000	2,003,000	5,085,000
Total	1,520,968,000	994,863,000	1,127,757,000	1,183,385,000

iii. The Government's procurement policy is to obtain goods and services at the best value for money through open and fair competition. We treat all tenderers equally. Suppliers from different countries are allowed to bid on an equal basis irrespective of the place of origin of the products so long as they can provide products fulfilling the green specifications. As procurement is handled by departments themselves having regard to their needs, we do not have the relevant procurement information.

iv. The Government has already issued internal circulars and guidelines to require departments to adopt good practices in environmental protection, such as waste reduction and recycling, energy and carbon reduction in their daily operations and preparation for conferences, exhibitions and events, etc. For example, in reducing the use of disposable plastic items, starting from January 2019, the Government has taken the lead in banning plastic straws and polyfoam food containers in premises and canteens mainly serving government staff. Relevant departments, when inviting tenders for new or renewing existing contracts, will also require restaurant operators in suitable government venues to avoid using disposable plastic tableware. To encourage the public to develop a habit of bringing their own water bottles and reduce the consumption of plastic bottled water, the sale of plastic bottled water of 1 litre or less in the automatic vending machines in government venues has stopped progressively from February 2018. We are also coordinating with various departments to install 500 more water dispensers in government venues with public access within 3 years in order to encourage the general public to develop a habit of bringing their own water bottles.

The Government has all along taken the lead to adopt green procurement. Departments should set out tender specifications that green products are purchased as far as possible and where economically rational. The Environmental Protection Department (EPD) has developed the green specifications and guidelines for the goods and services commonly used by the Government for adoption by departments to practise green procurement. The Government's green procurement list has been expanded to cover 150 items of products and services. To enhance the overall performance of green procurement in the Government, the EPD has commissioned a consultancy study to further expand the Government's green procurement list to cover more products and services and update the relevant green specifications. The study is expected to be completed in the 4th quarter of 2019.

- End -

CONTROLLING OFFICER'S REPLY

ENB057

(Question Serial No. 1394)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

For the Restored Landfill Revitalisation Funding Scheme (RLRFS), the Environmental Protection Department has been working closely with the 2 non-profit-making organisations selected under Batch 1 of the RLRFS to take forward the projects to revitalise the Ma Yau Tong Central Landfill and the Tseung Kwan O Stage I Landfill the soonest possible. What are the details?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 44)

Reply:

In accordance with the established assessment procedures and criteria, the Steering Committee on the "Restored Landfill Revitalisation Funding Scheme" (RLRFS) selected 2 non-profit-making organisations (NPOs) to develop detailed proposals to revitalise the Tseung Kwan O Stage I Landfill and the Ma Yau Tong Central Landfill in Kwun Tong respectively in 2017.

For the project proposal of revitalising approximately 2 hectares of flat area in the Tseung Kwan O Stage I Landfill (involving revitalising the landfill site into a camp site-cum-green education ground for providing camping grounds and garden plots for rental, and organising green education, outdoor recreational and adventure training activities, etc.), a technical feasibility study was completed in 2018. The Environmental Protection Department (EPD) signed a funding agreement with the NPO concerned in February 2019 to provide funding for the pre-construction activities for the project, including site investigation, detailed design and tender documentation. On completion of the pre-construction activities, the EPD will follow the established procedures to seek funding approval for the capital works of the project from the Legislative Council.

Regarding the revitalisation project at the Ma Yau Tong Central Landfill, the NPO concerned completed the detailed proposal and found that the estimated capital costs of the project had exceeded the costs estimated during the application stage as well as the capital grant ceiling of \$100 million under the RLRFS. The NPO has decided not to pursue the

project further and has formally informed the Steering Committee on the RLRFS of its decision.

The EPD is reviewing the operational and implementation experience of Batch 1 of the RLRFS, which covers the requirements of basic infrastructure/public utilities at individual restored landfills for possible beneficial uses, the roles of the Government and NPOs/National Sports Associations in constructing and managing the facilities, and the application and assessment procedures, with a view to introducing enhanced measures for Batch 2 of the RLRFS and assisting future applicants in proposing diverse modes of collaboration or operation. The review is expected to be completed within 2019 and Batch 2 of the RLRFS will be launched as soon as possible.

- End -

CONTROLLING OFFICER'S REPLY

ENB058

(Question Serial No. 1395)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the Producer Responsibility Scheme on glass beverage containers, would the Government advise this Committee on the following:

- i. Why is there a delay in submitting the subsidiary legislation?
- ii. What is the total number of glass bottle collection points set up in housing estates across the territory at present?
- iii. What were the quantities of glass collected and the recycling rate in the past 5 years? What are the estimated quantities of glass collected and the estimated recycling rate for the coming 5 years?
- iv. What are the contract value, handling capacity and details of the 3 glass management contracts awarded by the Government?
- v. Further to the above question, what are the actual monthly quantities of glass processed by the relevant companies since the contracts have been awarded?
- vi. What penalties will be imposed if the contractors fail to deliver the quantities of glass recovered as stipulated in the contracts?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 45)

Reply:

The Environmental Protection Department (EPD) is actively taking forward the implementation of the Producer Responsibility Scheme (PRS) on glass beverage containers. Amongst others, we are drafting the necessary subsidiary legislation to provide the operational details for the implementation of the scheme. We initially aimed to submit the subsidiary legislation to the Legislative Council for scrutiny in 2018, but we need more time to deal with some technical details in the drafting process of the legislation. As such, the submission of the subsidiary legislation will have to be deferred to the first half of this year.

Through open tenders, the EPD has appointed 2 contractors to undertake the collection and treatment services for waste glass containers in 3 regions, i.e. Hong Kong Island (including Islands District), Kowloon and the New Territories. Details of the contracts are summarised as follows:

Region	Tendering procedure	Contractor	Contract period	Estimated contract value (\$ million)
Hong Kong Island & Islands District	Open	Baguio Waste Management & Recycling Ltd.	5-year contract (effective from November 2017)	170.8
New Territories	Open	Baguio Waste Management & Recycling Ltd.	5-year contract (effective from November 2017)	102.5
Kowloon	Open	Hong Kong Glass Reborn Limited	5-year contract (effective from May 2018)	91.5

Under the contracts, the recycling target of the 2 contractors in the first year of the contract is 15 000 tonnes in total, and will gradually increase to 50 000 tonnes per year. According to our estimation, Hong Kong generates about 100 000 tonnes of waste glass containers a year and about two-thirds of which are glass beverage containers weighing about 65 000 tonnes. The recycling target of 50 000 tonnes a year accounts for about 70% of the glass beverage containers generated across the territory, or half of the overall quantity of glass containers generated.

With the commencement of collection services of the 2 contractors in January and July 2018 respectively, the total quantity of glass containers collected has been increasing gradually. The quantity of waste glass containers collected in 2018 exceeded 13 000 tonnes, which increased by about 60% compared with the total quantity collected under the relevant voluntary recycling programmes in 2017. The quantity collected in January 2019 has increased to over 1 700 tonnes, more than doubled the monthly average quantity collected under the voluntary glass container recycling programmes in 2017. There has also been a significant growth in the number of collection points set up across the territory. The number of collection points serving catering premises has nearly tripled, while the overall number serving housing estates increased to over 1 500 locations.

According to the contracts, if any irregularity or non-compliance of contractor's performance is found, the Government will issue a verbal or written warning to the contractor and require the contractor to submit a written report to provide an explanation and an action plan to rectify the situation. The Government will also consider suspending payment of service fees according to actual circumstances until the situation improves. Besides, if a contractor fails to meet the operational requirements under the contract, including the requirement to reach the recycling quantity as stipulated in the contract for that year, the Government will deduct the service fees for that year in accordance with the relevant terms. If the contractor continues with its irregularity without improvement or the performance of the contractor is unsatisfactory, and it still fails to comply with the contract requirements after warning, the EPD may terminate the relevant contract before it expires and arrange for re-tendering in accordance with relevant contract terms.

The quantities of waste glass containers collected and the recycling rates in the past 5 years are as follows:

Year	Quantity of waste glass containers collected* (tonnes)	Recycling rate
2014	8 400	10.2%
2015	9 400	8.5%
2016	9 300	9.5%
2017	11 000	12.1%
2018	Under compilation	Under compilation

[*Note: The figures include the quantities of glass containers collected under the voluntary recycling programmes and by private recyclers.]

- End -

CONTROLLING OFFICER'S REPLY

ENB059

(Question Serial No. 3184)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (3) Noise

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Environmental Protection Department (EPD) is obliged to enforce the Noise Control Ordinance. However, since it generally takes 3 working days for the EPD to arrange officers to conduct on-site inspections after receiving the complaints, and inspections will only be conducted during office hours, we can only rely on the police to issue advice for urgent complaint cases as no enforcement actions will be taken during non-office hours. Has the Government considered allocating more resources and deploying additional manpower for handling urgent complaint cases, and arranging inspecting officers to work and carry out inspections during non-office hours?

Asked by: Hon CHAN Han-pan (LegCo internal reference no.: 57)

Reply:

The provisions of the Noise Control Ordinance (NCO) are enforced by the Environmental Protection Department (EPD) and the Police. For sections 4 and 5 of the NCO regarding control of noise from domestic premises and public places, the daily complaints from the public and enforcement work are mainly handled by the Police. As for section 6 of the NCO regarding control of construction noise, the relevant complaints and enforcement work are mainly handled by the EPD on a day-to-day basis. The enforcement officers concerned will also follow up with the complaints and conduct enforcement actions during non-office hours.

The EPD operates a 24-hour hotline to receive public complaints against noise problems. The hotline is manned by the staff during office hours and served by a recording system outside office hours and on public holidays. Members of the public may also report any urgent complaints to the nearest police station.

The Government will continue to review the enhancement of procedures for noise complaint handling from time to time, having regard to the actual circumstances, and handle urgent complaint cases through flexible deployment of staff.

- End -

CONTROLLING OFFICER'S REPLY

ENB060

(Question Serial No. 0044)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the introduction of a producer responsibility scheme on plastic beverage containers in 2019-20, including launching a pilot scheme on the application of reverse vending machine for collection of such containers, please provide the details of the following:

1. What is the number of reverse vending machines to be installed?
2. What are the locations and districts for installing such machines? What are the criteria for determining the locations for installing such machines?
3. What is the timetable for the installation?
4. When will a review be conducted? Will the installation plan be further expanded?
5. What are the manpower and expenditure to be involved?

Asked by: Hon CHEUNG Yu-yan, Tommy (LegCo internal reference no.: 22)

Reply:

The Government commissioned a feasibility study on the introduction of a producer responsibility scheme (PRS) on plastic product containers, targeting those carrying beverages or personal care products, in October 2017. Taking into account the recommendations of the consultant, the Government decided to accord priority to plastic beverage containers, which account for about 60% of overall waste plastic containers disposed of in Hong Kong, and proceed first with the introduction of a PRS for this type of containers. We plan to consult the public on the proposed way forward in 2019. The consultant will continue to conduct the feasibility study on the PRS on plastic personal care product containers and submit a report to the Government.

In parallel, the Environmental Protection Department (EPD) is preparing for the implementation of a pilot scheme on the application of reverse vending machine (RVM), and will assess its performance and effectiveness in collecting waste plastic beverage containers, as well as the operational arrangements for storing and transporting the plastic bottles collected to local recyclers for further processing. Our initial plan is to place a total

of 50 to 60 RVMs at different locations in the second half of 2019, primarily at public places or government facilities with higher pedestrian flow. Through the pilot scheme, the EPD will also assess the appropriate incentive and the level that should be provided having regard to the recommendations put forward by the consultant. The EPD is now undertaking the preparatory work to work out the specific details of the pilot scheme.

The estimated expenditure for the pilot scheme in the financial year 2019-20 is about \$4 million, which will mainly be used to engage a contractor to carry out the scheme. As launching the pilot scheme on the application of RVM is part of the work of the Waste Management Policy Division of the EPD, there is no separate breakdown of the manpower and expenditure involved in this work item.

- End -

CONTROLLING OFFICER'S REPLY**ENB061****(Question Serial No. 0045)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding continuing with the development of the network of Community Green Stations across the territory, please provide details, including the development progress in various districts, the selected sites, the quantity of materials recovered from the collection points, as well as the manpower and expenditure involved.

Asked by: Hon CHEUNG Yu-yan, Tommy (LegCo internal reference no.: 23)Reply:

The Environmental Protection Department (EPD) is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. The total cost for capital works of all CGSs is estimated to be about \$400 million. The operating expenditure of individual CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions. At present, there are a total of 17 posts tasked to implement this initiative and monitor the operation of the CGSs, including 16 permanent posts and 1 time-limited post (until 2020). As at the end of 2018, 7 CGSs have progressively been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. The latest development of individual CGSs is tabulated below:

CGS	Site	Latest Development and Schedule
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CGS	Site	Latest Development and Schedule
Sha Tin CGS	10 On Ping Street, Shek Mun	The CGS commenced operation in May 2015. In 2018, the CGS collected about 461 tonnes of recyclables, with an operating expenditure of about \$4.76 million.
Eastern CGS	30 Oi Shun Road, Shau Kei Wan	The CGS commenced operation in August 2015. In 2018, the CGS collected about 437 tonnes of recyclables, with an operating expenditure of about \$3.91 million.
Kwun Tong CGS	27 Sheung Yee Road, Kowloon Bay	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$4.27 million.
Yuen Long CGS	65 Tin Wah Road, Tin Shui Wai	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$3.46 million.
Sham Shui Po CGS	339 Tung Chau Street	The CGS commenced operation in October 2017. In 2018, the CGS collected about 394 tonnes of recyclables, with an operating expenditure of about \$4.70 million.
Tuen Mun CGS	9 Tuen Yee Street	The CGS commenced operation in September 2018. As at the end of 2018, the CGS collected about 70 tonnes of recyclables, with an operating expenditure of about \$2.10 million.
Kwai Tsing CGS	12 Tam Kon Shan Road, Tsing Yi	The CGS commenced operation in November 2018. As at the end of 2018, the CGS collected about 40 tonnes of recyclables, with an operating expenditure of about \$770,000.
Tai Po CGS	25 Dai Wah Street	The tendering for the operation contract is underway. The CGSs are expected to

CGS	Site	Latest Development and Schedule
Islands CGS	1 Chung Mun Road, Tung Chung, Lantau	commence operation within 2019.
Sai Kung CGS	Po Lam Lane, near Po Hong Road and Po Lam Road North, Tseung Kwan O	Design and construction works are in progress.
Wan Chai CGS	Wan Shing Street, near Hung Hing Road	
Tsuen Wan CGS	Hoi Shing Road, near Hoi Kok Street	The site has been confirmed and planning of construction works is in progress.
Wong Tai Sin CGS, Kowloon City CGS, Southern CGS, Yau Tsim Mong CGS, Central and Western CGS and North CGS	Site to be confirmed	We have been following up the views from District Councils. Taking into account the actual operating experience in other CGSs, we are continuing with site search and other associated preparation work.

- End -

CONTROLLING OFFICER'S REPLY

ENB062

(Question Serial No. 0046)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the introduction of a pilot scheme to collect food waste generated from commercial and industrial sources, please provide details, including the implementation timetable, implementation details, stakeholders covered, number of restaurants, districts, manpower and expenditure involved, etc.

Asked by: Hon CHEUNG Yu-yan, Tommy (LegCo internal reference no.: 24)

Reply:

To promote proper recycling of food waste and achieve the target of turning waste to energy, the Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. The pilot scheme will mainly involve collection of food waste generated by commercial and industrial (C&I) sectors, including the continued provision of food waste collection service for public markets and cooked food venues under the Food and Environmental Hygiene Department (FEHD), as well as wet markets and shopping centres managed by the Hong Kong Housing Authority (HA). The pilot scheme will also include free food waste collection service for all primary and secondary schools, and tertiary institutions in Hong Kong starting from the second quarter of this year through those school lunch suppliers or canteens of the tertiary institutions which are interested to join.

Organic Resources Recovery Centre Phase 1 (O • PARK1) has started receiving food waste for testing and commissioning since 1 July 2018. Since then, 40 public markets and cooked food venues under the FEHD (see Annex 1) and 9 shopping centres and wet markets under the HA (see Annex 2) have started source separation and collection of food waste. The food waste collection contractor of the FEHD delivers source-separated food waste from the above 49 premises to the O • PARK1 for treatment every day. In addition, to further promote recycling of food waste and enhance the quality of food waste collected, the

Environmental Protection Department (EPD) has arranged a contractor to provide suitable guidance and training for operators of public market stalls, cooked food venues and shopping centres, including advising them on how to practise source separation, collection and delivery of food waste. We are discussing with the relevant government departments on extending the free food waste collection service to other public markets, cooked food venues and shopping centres under the FEHD and the HA and other facilities, for example, more wholesale markets under the Agriculture, Fisheries and Conservation Department and hospitals under the Hospital Authority, etc. under the above pilot scheme.

Regarding provision of free food waste collection service for school lunch suppliers, in February this year, the EPD invited school lunch suppliers to participate in the above pilot scheme by collecting the food waste generated from their supply of lunch for primary and secondary schools and food left uneaten by students, and delivering such food waste to the O • PARK1. About 10 school lunch suppliers have indicated their interest in participating in the above pilot scheme at present, with their plants distributed in Sha Tin, Tai Po, Tuen Mun, Yuen Long, Kwai Tsing, Kwun Tong, Wan Chai and Chai Wan. The contractor of the O • PARK1 engaged by the EPD is getting in contact with the interested school lunch suppliers to discuss the food waste collection arrangements. It is expected that the food waste collection service can be launched within the second quarter of this year.

In addition, EPD is getting in touch with the canteens of the tertiary institutions to discuss various feasible options to provide free food waste collection service for them under the pilot scheme. Most tertiary institutions have indicated their interest in participating in the above pilot scheme at present.

Additionally, we will allocate a portion of the treatment capacities of the O • PARK1 and the “food waste/sewage sludge anaerobic co-digestion” trial scheme at the Tai Po Sewage Treatment Works (STW) to provide free collection and recycling services for a portion of the domestic food waste. Priority will be given to food waste from housing estates with experience in food waste separation and recycling, such as the 35 private housing estates having participated in the “Food Waste Recycling Projects in Housing Estates” under the Environment and Conservation Fund (ECF). These housing estates have received funding support from the ECF for installing on-site food waste treatment facilities, organising relevant educational and promotional activities, and putting source separation and recycling of food waste into practice. We will take the initiative to invite these housing estates to join the aforesaid pilot scheme on free food waste collection service.

We will also explore the provision of free food waste collection service for some of the C&I establishments which have been proactively delivering their food waste from different districts to the O • PARK1 at present. The number of establishments involved and the scale of collection are subject to the treatment capacities of the food waste recycling facilities.

Apart from that, we are planning to extend the “food waste/sewage sludge anaerobic co-digestion” trial scheme to cover the Sha Tin STW for commissioning in 2022. Having regard to the experience gained from the above pilot scheme, we will conduct a trial on collection of domestic food waste in Sha Tin to test the operational and facilitation requirement for carrying out separation at source, collection and recycling of domestic food waste at different types of private and public housing estates, villages and domestic/

commercial buildings. We are seeking funding approval from the Legislative Council for construction of the Organic Resources Recovery Centre Phase 2 (ORRC2). Upon the commissioning of the ORRC2, we will not only be able to further extend the free food waste collection service to more C&I establishments, but will also allocate part of its treatment capacity to recycle the domestic food waste collected for free from the households and villages within the area.

The implementation schedule of the above free food waste collection services will largely depend on the completion dates of the food waste recycling facilities. With the gradual completion of such facilities in future, we plan to extend the food waste collection services to cover all districts and sectors in Hong Kong in a prompt manner.

The estimated expenditure for implementing the pilot scheme to provide free food waste collection service in 2019-20 is about \$55 million.

7 additional non-directorate professional staff of the EPD (including Environmental Protection Officers and Environmental Protection Inspectors) will be dedicated to implementing source separation and collection of food waste.

FEHD public markets and cooked food centres/markets that have been delivering food waste to O • PARK1 since July 2018

District	Name of public market and cooked food centre/market	District	Name of public market and cooked food centre/market
Central/Western	Sheung Wan Market and Cooked Food Centre	Kowloon City	Kowloon City Market and Cooked Food Centre
	Smithfield Market and Cooked Food Centre		To Kwa Wan Market and Cooked Food Centre
	Shek Tong Tsui Market and Cooked Food Centre		Hung Hom Market and Cooked Food Centre
	Sai Ying Pun Market	Mong Kok	Fa Yuen Street Market and Cooked Food Centre
Eastern	Sai Wan Ho Market and Cooked Food Centre	Sham Shui Po	Tai Kok Tsui Market and Cooked Food Centre
	Yue Wan Market and Cooked Food Centre		Po On Road Market and Cooked Food Centre
	Java Road Market and Cooked Food Centre	Wong Tai Sin	Pei Ho Street Market and Cooked Food Centre
	Chai Wan Market and Cooked Food Centre		Tai Shing Street Market and Cooked Food Centre
	Quarry Bay Market and Cooked Food Centre		Ngau Chi Wan Market and Cooked Food Centre
	Electric Road Market and Cooked Food Centre		Choi Hung Road Market and Cooked Food Centre
	Aldrich Bay Market and Cooked Food Centre		Sheung Fung Street Market
Southern	Aberdeen Market and Cooked Food Centre	Yau Tsim	Kwun Chung Market and Cooked Food Centre
	Yue Kwong Road Market and Cooked Food Centre		Yau Ma Tei Market
	Tin Wan Market and Cooked Food Centre		Haiphong Road Temporary Market cum Haiphong Road Temporary Cooked Food Hawker Bazaar
	Ap Lei Chau Market and Cooked Food Centre	Kwai Tsing	North Kwai Chung Market
Causeway Bay Market	Wing Fong Street Market		
Wan Chai	Bowrington Road Market and Cooked Food Centre	Tsuen Wan	Tsing Yi Market
	Lockhart Road Market and Cooked Food Centre		Tsuen Wan Market
	Wong Nai Chung Market and Cooked Food Centre	Tsuen Wan	Yeung Uk Road Market

	Wan Chai Market		Heung Che Street Market and Cooked Food Centre
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Annex 2

HA wet markets and shopping centres that have been delivering food waste to O • PARK1 since July 2018

District	Name of shopping centre
Southern	Wah Fu (I) Shopping Centre
	Wah Fu (II) Commercial Complex
Sham Shui Po	Nam Shan Shopping Centre
Kowloon City	Ching Long Shopping Centre
Kwai Tsing	Cheung Ching Commercial Complex
	Kwai Shing West Shopping Centre
	Kwai Chung Shopping Centre
	Lai Yiu Shopping Centre
	Lei Muk Shue Shopping Centre

- End -

CONTROLLING OFFICER'S REPLY**ENB063****(Question Serial No. 0059)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

It is stated by the Environmental Protection Department that there will be a net increase of 148 posts under this Programme in 2019-20. Please set out in tabular form the titles, ranks and duties of such posts, as well as the annual salary cost to be involved.

Asked by: Hon CHEUNG Yu-yan, Tommy (LegCo internal reference no.: 37)Reply:

There will be an increase of 148 posts in the Environmental Protection Department under "Programme (1) Waste" in 2019-20 and the notional annual salary cost at mid-point is about \$94 million. This is mainly for taking forward various producer responsibility schemes, preparing for the Municipal Solid Waste Charging Scheme, setting up new outreach teams, enhancing food waste treatment capacity with the use of food waste/sewage sludge anaerobic co-digestion technology and implementing other waste reduction and recycling measures. Details of the post titles and pay scales are as follows:

Post	Pay Scale	Net Increase of posts
Assistant Director of Environmental Protection	Directorate Pay Scale Point 2	+1
Principal Environmental Protection Officer	Directorate Pay Scale Point 1	+3
Senior Environmental Protection Officer	Master Pay Scale Point 45 - 49	+12
Environmental Protection Officer/ Assistant Environmental Protection Officer	Master Pay Scale Point 27 - 44 (Environmental Protection Officer)	+29
	Master Pay Scale Point 16 - 21 (Assistant Environmental Protection Officer)	

Post	Pay Scale	Net Increase of posts
Chief Environmental Protection Inspector	Master Pay Scale Point 29 - 33	+2
Senior Environmental Protection Inspector	Master Pay Scale Point 22 - 28	+26
Environmental Protection Inspector	Master Pay Scale Point 8 - 21	+34
Senior Architect	Master Pay Scale Point 45 - 49	+1
Architect/ Assistant Architect	Master Pay Scale Point 32 - 44(Architect)	+1
	Master Pay Scale Point 19 - 27(Assistant Architect)	
Senior Administrative Officer	Master Pay Scale Point 45 - 49	+1
Chief Executive Officer	Master Pay Scale Point 45 - 49	+2
Executive Officer I	Master Pay Scale Point 28 - 33	+2
Executive Officer II	Master Pay Scale Point 15 - 27	+1
Chief Supplies Officer	Master Pay Scale Point 40 - 44	+1
Official Languages Officer II	Master Pay Scale Point 14 - 27	+1
Accounting Officer I	Master Pay Scale Point 28 - 33	+2
Accounting Officer II	Master Pay Scale Point 14 - 27	+1
Clerical Officer	Master Pay Scale Point 16 - 21	+1
Assistant Clerical Officer	Master Pay Scale Point 3 - 15	+8
Clerical Assistant	Master Pay Scale Point 1 - 10	+4
Personal Secretary I	Master Pay Scale Point 16 - 21	+1
Personal Secretary II	Master Pay Scale Point 4 - 15	+5
Motor Driver	Master Pay Scale Point 5 - 8	+8
Supplies Supervisor I	Master Pay Scale Point 16 - 21	+1
Total		+148

- End -

CONTROLLING OFFICER'S REPLY

ENB064

(Question Serial No. 0729)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in paragraph 165 of this year's Budget that \$120 million will be allocated to extend the public electric vehicle (EV) charging networks at government car parks. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to 1 700. The Government will also identify suitable on-street parking spaces to install EV chargers on a trial basis and explore suitable locations to set up pilot quick charging stations for EVs. In this connection, would the Government please advise on the following:

1. What are the departments and locations involved in respect of the above-mentioned government car parks?
2. As for the addition of over 1 000 public chargers, what are their specifications (particularly a comparison in terms of charging time and expenditure), the reasons for selection and the relevant expenditure?
4. What are the locations of the suitable on-street parking spaces for installing EV chargers and the quick charging stations for EVs mentioned by the Government? What are the reasons for choosing the above locations?

Asked by: Hon CHIANG Lai-wan (LegCo internal reference no.: 22)

Reply:

Regarding the charging arrangements for electric private cars (e-PCs), it has always been the Government's policy direction that e-PC owners should charge up their e-PCs by using charging facilities at their workplace, home or other suitable places, and the public charging facilities are mainly supplementary in nature, setting up for electric vehicle (EV) owners to meet occasional needs to top up their batteries on the way so as to complete their remaining trips.

1. The Government will extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the Transport Department (TD), the Government Property Agency (GPA) and the Leisure and Cultural Services Department (LCSD) which are fully or partly open to the

public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. Locations of the car parks involved are provided at Annex 1.

2. The expenditure involved in the provision of chargers and related facilities (including cables, wires, conduits and smart meters, etc.) is about \$120 million. All chargers to be installed are 7 kW medium chargers. Hong Kong is not large in area and the daily mileage of PCs in general is about a few tens of kilometres (km). By charging with medium chargers for less than an hour, EVs may run for at least another 30 km, implying that such chargers should be sufficient to top up their batteries at times of occasional needs.

3. Regarding the installation of EV chargers at on-street parking spaces, the parking spaces set up at roadside serve mainly short-term parking needs, and parking meters are generally erected at these parking spaces to increase the circulation of the parking spaces for use by more drivers. Taking into account the potential impact on nearby traffic and the parking needs of other drivers, as well as related technical considerations (such as power supply and space constraints), relevant Government departments are actively looking for suitable on-street parking spaces to install charging facilities on a trial basis. Besides, to enable EV owners to top up their batteries quickly to meet occasional needs during their trips, the Government is looking for suitable locations to set up pilot public quick charging stations. A quick charger (charger with a power output of at least 50 kW) can add a driving range of 50 to 100 km to e-PCs in 15 to 30 minutes. When searching for trial sites, the Government will consider the impact on traffic flow and explore the possibility of whether the quick charging stations can be co-located with other Government facilities so as to reduce costs and optimise land use. The work on identifying suitable locations is in progress and there is no confirmed location for the time being.

The Government's planned locations for installation of EV chargers

Department		Location	<u>No. of EV chargers to be installed</u>
TD	1.	Aberdeen car park	About 690 in total
	2.	Kennedy Town car park	
	3.	Kwai Fong car park	
	4.	Shau Kei Wan car park	
	5.	Sheung Fung Street car park	
	6.	Tin Hau car park	
	7.	Tsuen Wan car park	
GPA	8.	North Point Government Offices	About 190 in total
	9.	Queensway Government Offices	
	10.	Shatin Government Offices	
	11.	North District Government Offices	
	12.	Tai Po Government Offices	
	13.	Yuen Long District Office	
	14.	Tuen Mun Government Offices	
	15.	Sai Kung Government Offices	
	16.	Cheung Sha Wan Government Offices	
	17.	Trade and Industry Tower	
LCSD	18.	Sun Yat Sen Memorial Park	About 310 in total
	19.	Sun Yat Sen Memorial Park Sports Centre	
	20.	Siu Sai Wan Sports Ground	
	21.	Island East Sports Centre	
	22.	Deep Water Bay Beach	
	23.	Ap Lei Chau Waterfront Promenade	
	24.	Wong Nai Chung Gap Children's Playground	
	25.	Hong Kong Heritage Museum	
	26.	Kowloon Bay Park	
	27.	Ping Shek Playground	
	28.	Shun Lee Tsuen Park	
	29.	Lei Yue Mun Municipal Services Building	
	30.	Lai Chi Kok Park	

Department		Location	<u>No. of EV chargers to be installed</u>
	31.	Sham Shui Po Sports Ground	
	32.	Cornwall Street Park	
	33.	Lung Cheung Road Lookout	
	34.	Hammer Hill Road Sports Ground	
	35.	Po Kong Village Road Park	
	36.	Kowloon Park	
	37.	Tung Chung Municipal Services Building	
	38.	Tsing Yi Southwest Leisure Building	
	39.	Tsing Yi Northeast Park	
	40.	Tsing Yi Sports Ground and Swimming Pool	
	41.	Kwai Chung Sports Ground	
	42.	Hing Fong Road Playground	
	43.	Sheung Shui Swimming Pool	
	44.	North District Sports Ground	
	45.	Wo Hing Sports Centre	
	46.	Po Wing Road Sports Centre	
	47.	Fanling Swimming Pool	
	48.	Tseung Kwan O Swimming Pool	
	49.	Tseung Kwan O Sports Ground	
	50.	Tiu Keng Leng Sports Centre	
	51.	Siu Lek Yuen Road Playground	
	52.	Sha Tin Sports Ground and Yuen Wo Playground	
	53.	Sha Tin Jockey Club Swimming Pool and Yuen Wo Road Sports Centre	
	54.	Sha Tin Town Hall	
	55.	Ma On Shan Swimming Pool	
	56.	Ma On Shan Sports Ground	
	57.	Yuen Chau Kok Complex	
	58.	Tai Po Sports Ground	
	59.	Tai Po Complex	
	60.	Kwong Fuk Park	

Department		Location	<u>No. of EV chargers to be installed</u>
	61.	Shing Mun Valley Swimming Pool	
	62.	Shing Mun Valley Sports Ground	
	63.	Tuen Mun North West Swimming Pool	
	64.	Tuen Mun Swimming Pool	
	65.	Yau Oi Sports Centre	
	66.	Yuen Long Swimming Pool	
	67.	Tin Shui Wai Swimming Pool & Tin Shui Wai Sports Centre	
	68.	Tin Shui Wai Sports Ground	
	69.	Tin Yip Road Park	
	70.	Fung Kam Street Sports Centre	

Remark:

The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

- End -

CONTROLLING OFFICER'S REPLY

ENB065

(Question Serial No. 3072)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding expanding outreaching teams for the implementation of municipal solid waste charging, please advise this Committee on the following:

- i) Given that the pilot outreaching services were first launched in the Eastern District, Kwun Tong and Sha Tin at the end of 2018, please provide a situation report on the co-ordination among the above districts, including the types of residential buildings provided with assistance, the types of assistance provided and the division of work between the outreaching teams and district cleansing sections of the Food and Environmental Hygiene Department.
- ii) For the assistance provided to old districts and “three-nil” buildings, does it include liaising scavengers in the community to provide them with assistance in recycling and waste reduction?
- iii) What are the distribution of manpower, scope of work, duties and full-year salary expenditure of the outreaching teams in various administrative districts (including a breakdown by civil servant and non-civil service contract staff)?
- iv) What is the enforcement power of the outreaching teams?

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1044)

Reply:

(i) and (ii)

To strengthen on-site support to recycling, the Environmental Protection Department (EPD) is establishing outreaching teams to collaborate closely with community partners to educate the public on the importance of waste reduction at source and assist them to practise proper waste separation at source and clean recycling, and to identify proper outlets for recyclables. At the same time, the outreaching teams will also promote the EPD's various waste reduction and recycling initiatives such as the producer responsibility scheme on waste electrical and electronic equipment (WPRS), the producer responsibility scheme on glass beverage containers (GPRS) and the proposed municipal solid waste (MSW) charging, so as to raise public awareness and participation, and enhance stakeholders' understanding on the implementation details. The outreaching teams will strive to establish and maintain a

direct communication network with different stakeholders such as property management companies (PMCs), cleansing workers, residents' organisations, District Council (DC) members and community representatives, etc. Starting from December 2018, the outreaching teams have kick-started pilot outreaching services in 3 districts (i.e. Eastern, Kwun Tong and Sha Tin districts). Actual experiences gained will serve as reference for gradual expansion of outreaching services to all districts in Hong Kong in future.

The outreaching teams have been visiting public and private housing estates and residential buildings, including single block buildings and "three nil" buildings, in the pilot districts; establishing and maintaining a direct and effective network with different stakeholders such as the PMCs, cleansing workers, residents' organisations, DC members and community representatives, etc. to understand the situation of the housing estates/buildings and provide recommendations on strengthening and enhancing waste reduction and recycling work; and assisting in improving and establishing an efficient system for collection of recyclables and identifying proper outlets for recyclables. The outreaching teams will maintain contact with staff of the Food and Environmental Hygiene Department and suitably coordinate the arrangements of recycling facilities in public places in the districts when necessary. It is understood that most scavengers usually resell their recyclables to nearby recycling shops as soon as possible after they collect the recyclables at locations such as supermarkets, dispensaries, shopping centres and markets. The outreaching teams will attempt to contact scavengers in the community and assist them to understand the latest requirements of the recycling market on recyclables so as to facilitate their work.

(iii)

The staffing of the EPD for implementing the outreaching services will be gradually increased from 32 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) at present (i.e. the financial year 2018-19) to 74 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) and 142 non-civil service contract staff in the financial year 2019-20. The estimated expenditures on salaries in 2018-19 and 2019-20 are about \$16 million and \$110 million respectively. For details of the scope of their work, please refer to the above paragraphs.

(iv)

The outreaching teams will focus on carrying out publicity and education work, placing education as the first priority in strengthening publicity and public education work as well as encouraging stakeholders' participation in implementing various waste reduction and recycling measures, with a view to preparing the public for the MSW charging in future. Enforcement work will be taken up by other dedicated staff to avoid mixing up the identity that may cause misunderstandings to the public.

- End -

CONTROLLING OFFICER'S REPLY

ENB066

(Question Serial No. 3073)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the management strategy for resources, please advise this Committee on the following:

Please tabulate the staff establishment of the following divisions, including all posts (including civil servants and non-civil servant contract posts), scope of work, duties and annual salary costs:

- 1) Waste Management (Policy Division)
- 2) Waste Management (Special Duties) Division
- 3) Waste Reduction and Recycling Division

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1045)

Reply:

In 2019-20, the staff establishment, scope of work, duties and annual salary costs of the following divisions of the Environmental Protection Department (EPD) are tabulated below:

Division	Scope of work and duties	Civil service post	Non-civil service post*	Annual salary costs*
Waste Management Policy Division	Responsible for policy formulation, strategic planning and programme development in waste management; progressive implementation of various producer responsibility schemes (PRs), including the ones on plastic shopping bags, waste electrical and electronic equipment (WEEE) (including management of the WEEE Treatment and Recycling Facility) and glass beverage containers, as well as the development of	88	6	About \$64 million

	<p>the PRS on plastic beverage containers; development and operation of Community Green Stations; overseeing the policy and its implementation of public fill management, initiating, developing and recommending policies, strategies, programmes and implementation plans for the attainment of Hong Kong's waste management policy goals in relation to construction and demolition materials, including the reduction, reuse and recycling of these materials through charging scheme and other appropriate programmes and plans.</p>			
<p>Waste Management (Special Duties) Division</p>	<p>Responsible for undertaking public education, publicity and public engagement activities in relation to municipal solid waste (MSW) charging to enhance public awareness of and identification with MSW charging in close collaboration with various stakeholders. The Division is also responsible for the preparatory work for the implementation of MSW charging, including (i) setting up relevant complementary systems, including a manufacturing, inventory and distribution system for designated garbage bags and designated labels, with some 4 000 distribution points in the territory; upgrading the waste reception facilities at landfills as well as the service and operation of refuse transfer stations to implement the charging mode of "gate-fee"; (ii) developing guidelines and coordinating the overall implementation, execution and inspection strategy, with various stakeholders and relevant government departments; and (iii) taking forward the required legislative proposals to provide the legal basis for implementing MSW charging.</p>	50	4	About \$45 million
<p>Waste Reduction and Recycling Division</p>	<p>Responsible for promoting the sustainable development of the recycling industry; overseeing the operation of the Recycling Fund; promoting green procurement and providing infrastructural support for the recycling sectors, including the EcoPark.</p>	82	9	About \$60 million

	<p>The work of the Division also includes reviewing policies and initiatives relating to source separation of waste and clean recycling; coordinating public education efforts, and recycling service at community level, and carrying out advance work for planning and preparation of outreaching services; supporting district green events and promoting the practice of waste reduction and recycling measures in large-scale events.</p> <p>Note: The EPD will launch outreaching services to all districts across the territory and will provide free collection and recycling service for waste plastics from non-commercial and non-industrial sources in 3 districts (i.e. Eastern, Kwun Tong and Sha Tin districts) under a pilot scheme. Subject to the approval of the creation of the relevant directorate posts, we plan to set up the new Outreaching and Recycling Division with around 260 staff through redeployment of some of the existing manpower of the Waste Reduction and Recycling Division together with creation of new posts in 2019-20.</p>			
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* Note: Including non-civil service contract posts and post-retirement service contract posts.

- End -

CONTROLLING OFFICER'S REPLY

ENB067

(Question Serial No. 3074)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding waste import/export, please advise this Committee on the following:

i) Please set out by type the amounts (in containers) of various recyclables, including waste plastics, paper and electrical and electronic equipment, imported from/exported to different countries (including Mainland China, the USA, Japan, South Korea, Germany and others) in the past 5 years.

ii) Please tabulate the number of inspections conducted by Environmental Protection Department and the relevant government departments on suspected illegal waste shipments, the number of actual interceptions, the number of prosecutions instituted, the number of people convicted and the penalties generally imposed on them, as well as the types of illegal waste involved and their respective amounts in each of the past 5 years.

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1046)

Reply:

1. The trade statistics on recyclables compiled by the Government are presented in weight. Moreover, as no corresponding commodity code is assigned for waste electrical and electronic equipment under the prevailing trade statistics system, we cannot provide the import/export statistics on such item.

The import statistics on the weights of paper and plastic recyclables by place of consignment over the past 5 years (i.e. 2014 to 2018) are as follows^{Note 1 and Note 2:}

Import of paper recyclables (by place of consignment)	2014	2015	2016	2017	2018
	Unit: '000 tonnes				
•Mainland China	2	0	0	4	11
•USA	0	0	5	1	18
•Japan	0	0	0	0	6

•Korea	0	0	0	0	0
•Germany	0	0	0	0	0
•Others	23	10	2	19	67
Total^{Note3}	25	10	7	24	103

Import of plastic recyclables (by place of consignment)	2014	2015	2016	2017	2018
	Unit: '000 tonnes				
•Mainland China	44	38	21	22	15
•USA	773	740	782	520	172
•Japan	610	614	617	366	78
•Korea	59	59	76	43	5
•Germany	273	231	221	139	63
•Others	1 319	1 179	1 159	799	269
Total^{Note3}	3 078	2 861	2 876	1 889	601

Notes:

1. Data source: The external merchandise trade statistics compiled by the Census and Statistics Department.
2. Amounts less than 500 tonnes are shown as 0.
3. The above figures may not add up to total due to rounding off.

The export statistics on the weights^{Note 4} of paper and plastic recyclables by place of consignment over the past 5 years (i.e. 2014 to 2018) are as follows^{Note 5 and Note 6}:

Export of paper recyclables (by place of consignment)	2014	2015	2016	2017	2018
	Unit: '000 tonnes				
•Mainland China	924	860	776	723	688
•USA	0	0	0	0	0
•Japan	0	0	0	0	0
•Korea	1	0	0	5	9
•Germany	0	0	0	0	0
•Others	26	40	40	66	20
Total^{Note7}	951	901	817	794	718

Export of plastic recyclables (by place of consignment)	2014	2015	2016	2017	2018
	Unit: '000 tonnes				
•Mainland China	2 986	2 797	2 805	1 711	50
•USA	0	0	0	0	0
•Japan	0	0	0	0	0
•Korea	4	3	1	1	1
•Germany	0	0	0	0	0
•Others	48	24	10	79	237
Total^{Note7}	3 038	2 824	2 817	1 791	288

Notes:

4. Amount of export includes re-exports and domestic exports.

5. Data source: The external merchandise trade statistics compiled by the Census and Statistics Department.

6. Amounts less than 500 tonnes are shown as 0.

7. The above figures may not add up to total due to rounding off.

2. The Environmental Protection Department (EPD) and the Customs and Excise Department have been conducting inspections and random checks on import/export shipments based on risk assessment and intelligence to intercept illegal trans-boundary movements of hazardous waste. The EPD's relevant enforcement figures on waste import/export over the past 5 years (i.e. 2014 to 2018) are as follows:

	No. of inspections on suspected illegal waste import/export shipments	No. of successful interceptions of illegal waste import/export shipments	Types of waste involved in illegal waste import/export ^{Note 8} (figure in brackets shows the number of shipments)	No. of prosecutions	No. of convicted persons/companies ^{Note 9}	Average amount of fines imposed on convicted persons/companies
2014	647	34	Chemical waste (34)	21	15	About \$23,000
2015	581	40	Chemical waste (38) Other hazardous waste (2)	22	13	About \$46,000
2016	644	57	Chemical waste (55) Other hazardous waste (2)	27	16	About \$27,000
2017	644	36	Chemical waste (26) Other hazardous waste (10)	66	45	About \$18,000
2018	720	53	Chemical waste (47) Other hazardous waste (6)	43	26	About \$26,000

Notes:

8. Chemical wastes: such as waste cathode ray tubes, waste flat panel display units, waste printed circuit boards and waste batteries, etc.

Other hazardous waste: such as waste toner cartridges and municipal waste, etc.

9. Individual persons/companies might be involved in multiple cases of prosecution/conviction for illegal import/export of different types of waste or repeated offences of illegal waste import/export.

- End -

CONTROLLING OFFICER'S REPLY

ENB068

(Question Serial No. 3075)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the 7 Community Green Stations (CGSs) currently in operation across the territory, please provide the following information to this Committee:

- i) operator of each CGS
- ii) construction cost and annual operating cost of each CGS in the past 5 years
- iii) duration of operation
- iii) required quantity of recyclables to be recovered as stated in the contract and other conditions
- iv) contractual requirements of the operator and the actual number of staff (including full-time and part-time staff)
- v) types of recyclables collected and the quantity of each type of recyclables recovered in the past 5 years
- vi) number of visitors

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1047)

Reply:

The Environmental Protection Department is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. The total cost for capital works of all CGSs is estimated to be about \$400 million. The operating expenditure of individual CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions. As at the end of 2018, a total of 7 CGSs have been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. The information on the operation of the CGSs currently in operation is set out below:

i) and ii)

CGS	Operator	Estimated construction cost (\$'000)	Operating expenditure (\$'000)			
			2015	2016	2017	2018
Sha Tin CGS	Christian Family Service Centre	20,500	3,300	2,690	4,220	4,760
Eastern CGS	Po Leung Kuk	27,300	2,430	3,350	3,610	3,910
Kwun Tong CGS	Christian Family Service Centre	29,000	-	-	4,690	4,270
Yuen Long CGS	Hong Chi Association	29,000	-	-	3,980	3,460
Sham Shui Po CGS	Po Leung Kuk	29,000	-	-	990	4,700
Tuen Mun CGS	Yan Oi Tong Ltd.	25,000	-	-	-	2,100
Kwai Tsing CGS	New Life Psychiatric Rehabilitation Association	26,000	-	-	-	770

iii) and iv)

Tender documents of the CGSs set out a 3-year operation period and the services and performance indicators that operators are required to deliver in the contract period. In this connection, the Sha Tin CGS, the Eastern CGS, the Kwun Tong CGS and the Yuen Long CGS have exceeded the designated requirements in the respective service contracts of the quantity of recyclables collected (not less than 600 tonnes of recyclables in 3 years) and the educational activities organised. Besides, the Sham Shui Po CGS, which commenced operation in October 2017, has also been operating well, and is expected to be able to meet or even exceed the contractual requirement for the quantity of recyclables collected.

In the follow-on three-year contract for the Sha Tin CGS and the Eastern CGS, the collection targets have respectively been raised to no less than 1 310 tonnes and 1 160 tonnes of recyclables. As for the Tuen Mun CGS and the Kwai Tsing CGS, which have just commenced operation, their collection targets are no less than 900 tonnes in the three-year contract.

Apart from the quantity of recyclables collected, the contracts also set other operation targets for the CGSs, including opening hours and the number of environmental educational activities. The number of staff for the CGSs is not specified in the contracts. At present, the operators of the 7 CGSs have a total of 120 staff.

v) and vi)

From 2015 to 2018, the quantities of various types of recyclables collected, the numbers of visitors and the numbers of educational activities organised in respect of the CGSs already in operation are set out below:

	2015	2016	2017	2018
Quantity of various types of recyclables handled (kg)				
Electrical appliances and computer products	51 717	97 079	213 542	303 820
Glass bottles	103 217	483 614	1 042 536	1 555 663
Compact fluorescent lamps/fluorescent tubes	1 315	6 906	14 003	16 209
Rechargeable batteries	341	1 670	4 925	5 037
Used books	596	4 646	21 955	21 952
Clothing	1 171	2 442	27 283	19 366
Waste paper	857	3 566	39 516	90 396
Waste plastics	223	2 285	15 989	59 050
Waste metals	72	932	7 120	12 925
Number of visitors and educational activities				
Number of visitors	31 387	159 459	287 910	320 192
Number of activities	719	1 155	1 354	1 202

- End -

CONTROLLING OFFICER'S REPLY

ENB069

(Question Serial No. 3091)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please tabulate the following information of the respective Community Recycling Network currently in operation across the territory:

- i) name of operator
- ii) operating cost in the past 5 years
- iii) duration of operation
- iii) required quantity of different recyclables to be recovered as stated in the contract and other conditions
- iv) contractual requirements of the operator and the actual number of staff (including full-time and part-time staff)
- v) types of recyclables collected and the quantity of each type of recyclables recovered in the past 5 years
- vi) number of visitors.

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1065)

Reply:

The Environmental Protection Department (EPD) has been encouraging the public to separate waste at source whether at home or at workplace through the Source Separation of Waste Programme (the Programme). As at the end of 2018, over 2 100 housing estates, some 700 rural villages and over 1 000 industrial and commercial buildings have participated in the Programme. We have now placed about 16 000 sets of waste separation bins at public places, schools, government office buildings, country parks, as well as housing estates and commercial and industrial (C&I) buildings which have participated in the Programme to facilitate source separation of waste by the public. The provision of recycling bins covers over 80% of the places where Hong Kong people live and work.

As single block buildings in older districts usually do not have any property management company for implementing and managing recycling programmes or the space for setting up waste recovery facilities, the Government has established a Community Recycling Network (CRN) through the Environment and Conservation Fund (ECF), including setting up the

Community Recycling Centres (CRCs) in various districts to provide services for residents living in these buildings, so as to facilitate their separation of waste for recovery and to promote waste reduction and recycling activities at the community level. There are currently 17 CRCs, 2 mobile community recycling projects and 50 collection points under the CRN.

All CRCs and mobile community recycling projects are operated by non-government organisations (NGOs). The information on their operations is set out in the table below. The projects are generally funded to hire a project officer and a project assistant. Depending on the needs of individual projects, the funded organisations may hire part-time staff and/or project ambassadors. The CRCs and mobile community recycling projects do not keep records on the number of visitors.

Collection point in Community Recycling Network ¹	2014 to 2018				Duration of operation ⁴	Current required quantity of different recyclables to be recovered under the funded project/as stated in the contract ⁶	
	Quantity of recyclables received (tonnes)			Total approved funding (\$m) ³		Plastics (tonnes/month)	Electrical and electronic equipment (set/month)
	Plastics	Glass	Electrical and electronic equipment				
CRC							
Central & Western Mid-Levels Owners Association – 121C Plastic Recycling Centre	401.4	106.8	14.3	16.1	For 2 years up to the end of March 2020	10.9	50
Fong Chung Social Service Centre – Dynamic Plastic Waste Collection Centre	405.7	85.6	3.3	9.2	For 1 year up to the end of March 2020 ⁵	9	20
121C Society For Recycling – Causeway Bay and Wan Chai Society For Recycling Project	202.4	27.7	7.5	9.1	For 1 year up to the end of July 2020 ⁵	7.5	40
121C Society For Recycling – Southern District Community Recycling Centre	134.2	0.4	1.2	6.8	For 1 year up to the end of June 2020 ⁵	4.8	40
Tai Kok Tsui Resources Centre Association – Meet Up Greens	296.6	2.6	6.3	8.0	For 1.5 years up to the end of April 2020	6.3	20

Collection point in Community Recycling Network ¹	2014 to 2018				Duration of operation ⁴	Current required quantity of different recyclables to be recovered under the funded project/as stated in the contract ⁶	
	Quantity of recyclables received (tonnes)			Total approved funding (\$m) ⁵		Plastics (tonnes/month)	Electrical and electronic equipment (set/month)
	Plastics	Glass	Electrical and electronic equipment				
Cheung Sha Wan Kai Fong Welfare Association – Eco-Community Recycling Centre	445.9	1.6	6.5	10.5	For 1 year up to the end of June 2020 ⁵	11	50
United Labour Chi Hong Association Limited – Community Recycling Center	337.5	2.4	3.2	13.4	For 2 years up to the end of December 2020	8.4	35
Boys' Brigade – Hung Hom District Waste Recovery Centre	229.9	5.2	4.3	9.8	For 1 year up to the end of January 2020	7	40
Boys' Brigade – To Kwa Wan District Waste Recovery Centre	516.0	7.0	7.4	8.9	For 1 year up to the end of March 2020 ⁵	10.9	50
East Kowloon District Residents' Committee Limited – Wong Tai Sin Community Recycling Center	485.8	13.8	38.1	11.9	For 2 years up to the end of May 2020	10.9	100
Boys' Brigade – Kwai Tsing District Waste Recovery Centre	432.1	11.2	7.0	9.5	For 1 year up to the end of March 2020 ⁵	10.9	50
Boys' Brigade – Tsuen Wan District Waste Recovery Centre	425.4	4.9	6.5	9.4	For 1 year up to the end of March 2020 ⁵	10.9	50
New Opportunity Limited – Tuen Mun Environmental Centre	560.0	11.8	24.0	9.1	For 1 year up to the end of September 2019	10.9	50
New Opportunity Limited – Yuen Long	255.9	4.1	12.6	7.3	For half year up to the end of June 2019	6	60

Collection point in Community Recycling Network ¹	2014 to 2018				Duration of operation ⁴	Current required quantity of different recyclables to be recovered under the funded project/as stated in the contract ⁶	
	Quantity of recyclables received (tonnes)			Total approved funding (\$m) ³		Plastics (tonnes/month)	Electrical and electronic equipment (set/month)
	Plastics	Glass	Electrical and electronic equipment				
Environmental Education Centre							
Action Health Limited – North District Recycling Centre	459.4	200.4	15.2	9.6	For 2 years up to the end of March 2020	6.5	50
North District Residents Association Limited – North District Recycling Centre	172.1	Not applicable	2.8	9.8	For 1 year up to the end of January 2020	6	15
Environmental Association – Ways for Plastic Recycling	682.3	208.7	16.5	8.5	For 1 years up to the end of June 2020 ⁵	10.9	50
Mobile community recycling project ²							
Ma On Shan Youth Association – Shatin Recycle Centre 2.0	172.4	6.7	7.7	9.3	For 1 year up to the end of May 2020 ⁵	4	40
Tseung Kwan O Kai Fong Joint Association Limited – Source Separation of Domestic Waste	322.2	Not applicable	Not applicable	7.2	For 1 year up to the end of May 2020 ⁵	8	-
Total	6 937.2	700.9	184.4	183.2			

Note 1: The name of collection point in the Community Recycling Network includes the name of the operator.

Note 2: The current community recycling projects in Sha Tin and Sai Kung districts operate by means of mobile recycling vehicles.

Note 3: The above figures may not add up to total due to rounding off.

Note 4: The ECF generally funds a CRC project for 1 to 2 years. The funded organisation may apply for an extension when the project is coming to an end.

Note 5: Application for extension of the relevant project has been approved by the ECF. The duration of operation is the approved extension period upon expiry of the current funding.

Note 6: Other conditions include: total number of households participating in the Source Separation of Waste Programme, total number of households provided with recycling services for plastics, number of membership registered with the CRC, requirement for the CRC to open on Saturdays or Sundays, etc.

As for the other 50 collection points operated by NGOs, most are set up under their community centres and service centres. Their main aim is to promote environmental education, publicise information on waste reduction and recycling, and collect low-value clean recyclables (including plastic bottles, glass bottles and small waste electrical and electronic equipment). In the past 5 years, a total of about 45 tonnes of waste plastics, 45 tonnes of waste glass and 10 tonnes of small waste electrical and electronic equipment were recovered. An expenditure of about \$2.08 million was incurred by the Government. The collection points operated by NGOs do not keep records on the number of visitors.

- End -

CONTROLLING OFFICER'S REPLY

ENB070

(Question Serial No. 3092)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please provide the following information:

1. Please tabulate the quantities (in tonnes) of waste and recyclables treated by the West New Territories (WENT) Landfill, the North East New Territories (NENT) Landfill, the South East New Territories (SENT) Landfill, the Chemical Waste Treatment Centre (CWTC), the Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK), the Organic Resources Recovery Centre Phase 1 (O • PARK1), the livestock waste treatment facilities, the contract glass recycling facilities for the New Territories region, the contract glass recycling facilities for Kowloon region and the contract glass recycling facilities for Hong Kong Island region in the past 5 years.
2. Please tabulate the capital costs, the recurrent cost per tonne of waste or recyclables collected, and the overall operating cost of the WENT Landfill, the NENT Landfill, the SENT Landfill, the CWTC, the WEEE • PARK, the O • PARK1, the livestock waste treatment facilities, the contract glass recycling facilities for the New Territories region, the contract glass recycling facilities for Kowloon region and the contract glass recycling facilities for Hong Kong Island region respectively in the past 5 years.
3. The capital cost, the estimated cost per tonne of waste collected for treatment, the cost per tonne of waste treated, and the overall operating cost of the Shek Kwu Chau incinerator in future.

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1066)

Reply:

1. In the past 5 years, the quantities of waste and recyclables treated by the various waste management and recycling facilities are tabulated below:

Facility/Service	Calendar year				
	2014	2015	2016	2017	2018
	Quantities of waste/recyclables treated (Unit: tonnes)				
West New Territories (WENT) Landfill ⁽¹⁾	2 647 797	2 768 516	3 225 771	3 185 047	3 251 838
North East New Territories (NENT) Landfill ⁽¹⁾	1 129 451	1 248 102	1 470 943	1 638 786	1 841 906
South East New Territories (SENT) Landfill ⁽¹⁾	1 646 190	1 495 656	914 936	839 446	781 140
Chemical Waste Treatment Centre (CWTC) ⁽²⁾	11 843	13 724	15 157	17 647	16 657
Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK) ⁽³⁾	Not applicable	Not applicable	Not applicable	930	10 830
Organic Resources Recovery Centre Phase 1 (O • PARK1) ⁽⁴⁾	Not applicable	Not applicable	Not applicable	Not applicable	14 519
Animal Waste Composting Plant (AWCP) in Ngau Tam Mei ⁽⁵⁾	8 148	7 423	7 840	9 710	9 702
Free livestock waste collection ⁽⁵⁾	20 829	22 194	23 019	23 612	23 726
Glass management contract for the New Territories region ⁽⁶⁾	Not applicable	Not applicable	Not applicable	Not applicable	3 600
Glass management contract for Kowloon region ⁽⁶⁾	Not applicable	Not applicable	Not applicable	Not applicable	1 910
Glass management contract for Hong Kong Island region ⁽⁶⁾	Not applicable	Not applicable	Not applicable	Not applicable	4 060

Note:

(1) The quantities are the total quantities of solid waste disposed of at the landfills.

(2) The quantities include MARPOL waste and clinical waste.

(3) The quantities are the total quantities of waste regulated electrical equipment (including air conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors) treated by the facility.

(4) The quantities are the quantities of food waste treated by the O • PARK1.

(5) To prevent epidemic diseases such as avian influenza and African Swine Fever, all of the waste collected from the poultry and pig rearing trades will be delivered to the landfills for disposal at present. The AWCP in Ngau Tam Mei is mainly used for treating horse manure and a certain amount of yard waste.

(6) The quantities are the quantities of waste glass containers collected by the glass management contractors. The contractors for Hong Kong Island region and the New Territories region began providing glass container collection and treatment services in January 2018. The contractor for Kowloon region began providing the services in July 2018.

2. In the past 5 years, the capital costs, the operating cost per tonne of waste or recyclables collected, and the respective overall operating cost of the various waste management and recycling facilities are tabulated below:

Facility/Service	Capital cost (\$m)				
	2014-15 (Actual)	2015-16 (Actual)	2016-17 (Actual)	2017-18 (Actual)	2018-19 (Revised estimate)
WENT Landfill	24	35	8	-	-
NENT Landfill	17	127	27	18	34
SENT Landfill	32	33	22	23	17
CWTC	-	-	-	-	-
WEEE • PARK	Not applicable	37	212	176	19
O • PARK1	24	244	491	365	196
AWCP in Ngau Tam Mei	-	-	-	-	-
Free livestock waste collection	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Glass management contract for the New Territories region ⁽¹⁾	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Glass management contract for Kowloon region ⁽¹⁾	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Glass management contract for Hong Kong Island region ⁽¹⁾	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Facility/Service	Operating cost per tonne of waste (\$/tonne)				
	2014-15 (Actual)	2015-16 (Actual)	2016-17 (Actual)	2017-18 (Actual)	2018-19 (Revised estimate)
WENT Landfill	110	90	90	110	110
NENT Landfill	140	130	120	130	120
SENT Landfill	140	160	210	240	260
CWTC	16,330	13,980	12,540	13,020	19,750
WEEE • PARK ⁽²⁾	Not applicable	Not applicable	Not applicable	14,490	10,000
O • PARK1 ⁽³⁾	Not applicable	Not applicable	Not applicable	Not applicable	1,510
AWCP in Ngau Tam Mei ⁽⁴⁾	2,040	2,280	1,880	2,250	2,910
Free livestock waste collection ⁽⁴⁾	190	200	210	210	180
Glass management contract for the New Territories region	Not applicable	Not applicable	Not applicable	Not applicable	2,160
Glass management contract for Kowloon region	Not applicable	Not applicable	Not applicable	Not applicable	1,210
Glass management contract for Hong Kong Island region	Not applicable	Not applicable	Not applicable	Not applicable	2,720

Facility/Service	Operating cost (\$m)				
	2014-15 (Actual)	2015-16 (Actual)	2016-17 (Actual)	2017-18 (Actual)	2018-19 (Revised estimate)
WENT Landfill	304	271	293	361	366
NENT Landfill	164	168	181	223	218
SENT Landfill	227	219	191	197	205
CWTC	205	195	203	219	332 ⁽⁵⁾
WEEE • PARK ⁽²⁾	Not applicable	Not applicable	2	28	155
O • PARK1 ⁽³⁾	Not applicable	Not applicable	Not applicable	Not applicable	13
AWCP in Ngau Tam Mei ⁽⁴⁾	16	17	15	22	29
Free livestock waste collection ⁽⁴⁾	4	5	5	5	4
Glass management contract for the New Territories region	Not applicable	Not applicable	Not applicable	Not applicable	4
Glass management contract for Kowloon region	Not applicable	Not applicable	Not applicable	Not applicable	3
Glass management contract for Hong Kong Island region	Not applicable	Not applicable	Not applicable	Not applicable	5

Note:

(1) According to the requirements of the contracts, the glass management contractors shall provide waste glass container treatment service and/or arrange for recycling of the waste glass containers. In this connection, the contractors will set up the required glass container treatment facilities respectively to provide the services, turning the waste glass containers into reusable materials (e.g. construction materials) or making them fit for re-bottling. The facilities are the assets of the contractors, the Government does not have to pay for any costs regarding the construction of glass container treatment facilities.

(2) WEEE • PARK has commenced operation since the end of 2017.

(3) O • PARK1 has commenced its operation of collecting and treating food waste since July 2018.

(4) To prevent epidemic diseases such as avian influenza and African Swine Fever, all of the waste collected from the poultry and pig rearing trades will be delivered to the landfills for disposal at present. The AWCP in Ngau Tam Mei is mainly used for treating horse manure and a certain amount of yard waste.

(5) Includes the increase in operating cost under the revised price fluctuation index agreement.

3. As for the Integrated Waste Management Facilities (IWMF) Phase 1 next to Shek Kwu Chau, we awarded the Design-Build-Operate contract for the project in November 2017. The incinerator and mechanical treatment plant at IWMF can treat 3 000 tonnes and 200 tonnes of municipal solid waste each day respectively. The contract includes a 15-year operation period and we expect that the facility will commence operation in 2024. The estimated design and construction cost for the facility is \$18 billion, the annual operating cost is about \$400 million⁽¹⁾, the commuted cost per tonne of waste treated is \$370 approximately. As the facility will only treat waste delivered from refuse transfer stations, there will be no additional collection cost.

Note:

(1) The above annual recurrent operating cost is the estimate made when the contract was awarded in 2017. It does not include other estimated costs, such as price adjustment and project contingencies during the 15-year contract operation period.

- End -

CONTROLLING OFFICER'S REPLY

ENB071

(Question Serial No. 3105)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the complaints handled by the Environmental Protection Department, please advise this Committee on the following:

(a) The types and numbers of complaints in the past 5 years

	Suspected marine dumping offences	Suspected waste import/export offences	Suspected illegal waste disposal offences	Suspected livestock waste control offences	Others
2014					
2015					
2016					
2017					
2018					

(b) The respective numbers of inspections conducted on weekdays, weekends and holidays in the past 5 years

	Weekdays	Weekends	Holidays
2014			
2015			
2016			
2017			
2018			

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1094)

Reply:

(a) Regarding the complaints about waste handled by the Environmental Protection Department (EPD), they mainly involve the offences under the Waste Disposal Ordinance and the Dumping at Sea Ordinance. The respective numbers of the relevant complaints handled by the EPD in the past 5 years are as follows:

Year	Dumping at Sea Ordinance	Waste Disposal Ordinance			
	Suspected marine dumping offences	Suspected waste import/export offences	Suspected illegal waste disposal offences	Suspected livestock waste control offences	Other suspected offences
2014	12	0	2 258	42	251
2015	3	1	2 649	51	415
2016	5	1	2 702	53	464
2017	8	0	2 962	63	822
2018	3	3	2 819	64	1 105

(b) The numbers of inspections, including proactive inspections and complaint follow-up inspections, conducted by the EPD under the Waste Disposal Ordinance and the Dumping at Sea Ordinance in the past 5 years are tabulated below:

Year	Weekdays ¹	Weekends ²	Holidays ³
2014	14 294	327	6
2015	15 112	384	2
2016	16 278	980	41
2017	18 617	587	35
2018	19 809	894	90

Notes:

1. Weekdays refer to Mondays to Fridays excluding public holidays.
2. Weekends refer to all Saturdays and Sundays.
3. Holidays refer to public holidays on Mondays to Fridays.

- End -

CONTROLLING OFFICER'S REPLY

ENB072

(Question Serial No. 3106)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the adoption of Global Positioning System on construction waste collection vehicles under suitable public works contracts, would the Government please advise this Committee on the following:

- (a) How many works contracts had such requirement in the past year? What were the manpower and expenditure involved?
- (b) Currently, how many construction waste collection vehicles are adopting the Global Positioning System? What are the manpower and expenditure involved?

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1095)

Reply:

To enhance construction waste management, the Government took the lead and for the first time specified the requirement of installation of Global Positioning System (GPS) tracking devices in all dump trucks engaged on site in the public works contract "Tung Chung New Town Extension – Reclamation and Advance Works" last year. The contractor then completed the installation of GPS tracking devices in all its dump trucks in the third quarter of last year, and has put in place the measure. The Government also implemented such measure in another public works contract in the first quarter of this year to further test the tracking device. At present, a total of 49 construction waste collection vehicles under the 2 contracts have been installed with the tracking device. As the relevant work is managed by existing staff of the works department in charge of the works contracts, which is part of their routine duties, there is no separate breakdown on the manpower and expenditure involved.

The Environmental Protection Department is working with other relevant bureaux/departments to identify more suitable government works contracts for testing, so as to accumulate more relevant experience in actual site environment and gauge the views of the trade. Taking into account the experience gained including issues of concerns to the trade, such as compliance cost, data collection, confidentiality and the use of personal data, we will review the overall effectiveness of this initiative in facilitating monitoring and

enforcement actions and consider how to implement the initiative in other public works contracts.

- End -

CONTROLLING OFFICER'S REPLY

ENB073

(Question Serial No. 3224)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (6) Nature Conservation

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Would the Government inform this Committee of the details, timetable, manpower and estimates of the Advisory Committee on Countryside Conservation?

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1096)

Reply:

The Advisory Committee on Countryside Conservation (ACCC) will be established in the first half of 2019, and its members will include representatives of relevant government departments, as well as non-government stakeholders such as scholars, professionals, rural/district stakeholders and representatives of green groups, etc. The main duties of the ACCC are to examine applications on conservation and revitalisation projects (excluding minor improvement works) submitted by non-governmental organisations (NGOs), and monitor the implementation of approved projects and proposals. The Countryside Conservation Office (CCO) will also consult the ACCC on the scope of and application procedures for conservation and revitalisation projects. Besides performing daily administrative duties, the 8 administrative and clerical staff in the CCO will also provide secretariat services for the ACCC and assist in the handling of applications on conservation and revitalisation projects submitted by NGOs. As the above-mentioned work is part of the countryside conservation duties of the CCO, we are unable to break down the estimates involved in the operation of the ACCC.

- End -

CONTROLLING OFFICER'S REPLY**ENB074****(Question Serial No. 2861)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (4) WaterControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

The Government has been proactively converting nullahs into artificial rivers in recent years. However, there are still many adverse comments about the environmental hygiene problems of the existing artificial rivers. Would the Government advise this Committee on the following:

1. The complaints received about the environmental hygiene of the Shing Mun River and the Lam Tsuen River in the past 5 years;
2. Please set out the water quality test results of the Shing Mun River and the Lam Tsuen River each month in the past 5 years;
3. What specific river channel management measures the Government has in place to improve the water quality of the Shing Mun River and the Lam Tsuen River?

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 47)Reply:

1. The numbers of complaints received by the Environmental Protection Department (EPD), the Food and Environmental Hygiene Department (FEHD), the Drainage Services Department (DSD) and the Marine Department (MD) about the environmental hygiene of the Shing Mun River and Lam Tsuen River in the past 5 years are set out in the tables below (some of the complaints might be the same cases but they were referred to multiple departments at the same time):

Table 1 The complaints received by the various departments about the environmental hygiene of the Shing Mun River in the past 5 years:

Year/Department	EPD	DSD	FEHD
2014	36	50	48

2015	87	54	90
2016	76	51	48
2017	56	53	41
2018	73	54	37
Total number	328	262	264

Table 2 The complaints received by the various departments about the environmental hygiene of the Lam Tsuen River in the past 5 years:

Year/Department	EPD	DSD	FEHD	MD
2014	1	0	2	0
2015	13	0	10	0
2016	10	0	30	0
2017	8	1	35	0
2018	12	1	27	2
Total number	44	2	104	2

2. According to the monthly water quality monitoring data collected at the Shing Mun River Main Channel station (TR19I) and the Lam Tsuen River downstream station (TR12I), the water quality index (WQI) gradings of the Shing Mun River and Lam Tsuen River have maintained at “Excellent” and “Good” respectively in the past 5 years (river WQI is classified into 5 gradings, namely “Excellent”, “Good”, “Fair”, “Bad” and “Very Bad”). The monthly WQI gradings are set out in Table 3 and Table 4.

Table 3 The WQI gradings of the Shing Mun River in the past 5 years:

Month	Year				
	2014	2015	2016	2017	2018
1	Excellent	Excellent	Good	Excellent	Excellent
2	Excellent	Excellent	Excellent	Excellent	Excellent
3	Excellent	Excellent	Excellent	Excellent	Excellent
4	Good	Good	Good	Excellent	Good
5	Good	Excellent	Excellent	Good	Excellent
6	Excellent	Excellent	Excellent	Good	Good
7	Good	Excellent	Excellent	Excellent	Excellent
8	Good	Excellent	Excellent	Good	Excellent
9	Good	Excellent	Excellent	Excellent	Excellent
10	Good	Good	Excellent	Excellent	Good
11	Good	Excellent	Excellent	Excellent	Good
12	Excellent	Excellent	Excellent	Excellent	Excellent
Annual	Excellent	Excellent	Excellent	Excellent	Excellent

Table 4 The WQI gradings of the Lam Tsuen River in the past 5 years:

Month	Year				
	2014	2015	2016	2017	2018
1	Good	Good	Excellent	Good	Good
2	Good	Good	Good	Good	Good
3	Good	Fair	Excellent	Good	Good
4	Good	Good	Excellent	Good	Good
5	Excellent	Excellent	Good	Good	Good
6	Excellent	Good	Good	Good	Good
7	Excellent	Good	Excellent	Excellent	Excellent
8	Excellent	Excellent	Excellent	Excellent	Good
9	Excellent	Good	Good	Excellent	Excellent
10	Good	Excellent	Good	Fair	Good
11	Good	Good	Good	Fair	Good
12	Good	Good	Good	Good	Good
Annual	Good	Good	Good	Good	Good

3. The EPD's main strategies for improving the river water quality in Hong Kong are to implement the Water Pollution Control Ordinance and the Livestock Waste Control Scheme, and to extend the sewerage network to various villages according to the Sewerage Master Plans, so that village houses can be gradually connected to the public sewerage. To further enhance and safeguard the water quality of the Shing Mun River and Lam Tsuen River, the Government has been allocating resources to construct public sewerage systems for the villages in the vicinity of Tolo Harbour according to recommendations of the Review of North District and Tolo Harbour Sewerage Master Plan. In addition, the Government has also been carrying out comprehensive rehabilitation works for ageing sewers in that area to reduce environmental pollution caused by damages of ageing underground sewers, and constructed a number of dry weather flow interceptors in that area to intercept polluted storm water.

Besides, various relevant government departments will also conduct inspections and cleansing operations in the Shing Mun River and Lam Tsuen River, which include the regular dredging of sludge in the rivers by the DSD and the Civil Engineering and Development Department; the regular scavenging for floating refuse in the rivers by the FEHD; and the regular monitoring of the water quality of the rivers, the follow-up of complaints and the inspections of various suspicious sources of wastewater discharge by the EPD. If illegal activities are found, the EPD will take appropriate enforcement actions to combat illegal discharge of wastewater. The EPD, in collaboration with other relevant departments, will continue to take various actions including publicity and education to reduce pollutants entering rivers, so as to protect river water quality.

- End -

CONTROLLING OFFICER'S REPLY

ENB075

(Question Serial No. 1103)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Since the end of 2016, the Environmental Protection Department (EPD) has begun to install Internet Protocol (IP) cameras at illegal refuse disposal black spots to combat illegal refuse disposal activities. It is learnt that if the images recorded by the surveillance cameras, commonly called the "eyes in the sky", show that someone transports a large amount of refuse by vehicle and disposes of it illegally, the law enforcement officers can immediately institute prosecution or directly take follow-up actions against the licence plate number captured. In this connection, would the Government advise this Committee on the following:

1. Please set out the number of persons arrested for illegal disposal and the number of successful prosecutions in the past;
2. Have there been signs of improvement to the illegal disposal of construction waste in the community since the launch of the scheme?
3. Will the Administration review the existing inspection practices and step up the inspection efforts in future, to prevent the offenders from evading the law enforcement of the EPD?

Asked by: Hon HO Kwan-yiu, Junius (LegCo internal reference no.: 24)

Reply:

1. In order to step up efforts in combating illegal disposal of waste, the Environmental Protection Department (EPD) has progressively installed surveillance camera systems at illegal construction waste disposal black spots on government land and public places since 2016 to facilitate enforcement and enhance the deterrence against illegal disposal of construction waste. The numbers of successful prosecutions and offenders involving illegal disposal of waste (including construction waste and municipal solid waste) handled by the EPD under the Waste Disposal Ordinance in the past 3 years are as follows:

	Year		
	2016	2017	2018
Number of prosecutions			
(1) Number of summonses issued	397	198	184
(2) Number of convictions by summonses	394	194	175
(3) Number of Fixed Penalty Notices issued	195	177	246
(4) Number of successful prosecutions [(2) + (3)]	589	371	421
(5) Number of offenders [(1) + (3)]	592	375	430

2. The amount of construction waste illegally disposed of in public places and on government land cleared by the Government in 2018 has been significantly reduced by 45% as compared with 2017. This shows signs of improvement by installing the surveillance camera systems and stepping up enforcement efforts, which have helped reduce the illegal disposal of construction waste.

3. The EPD will continue to review its enforcement strategies from time to time, and will gradually increase the number of surveillance camera systems and flexibly deploy the installation of such systems at black spot locations to expand the surveillance coverage. We will deploy manpower resources flexibly having regard to risk assessments, work priorities and actual conditions in the districts to facilitate planning of inspections and pooling of efforts in enforcement in a more effective manner. We will also increase the number of inspections within and outside office hours as well as on public holidays according to the specific needs, and will continue to strengthen collaboration with other relevant departments to jointly carry out close monitoring and enforcement work.

- End -

CONTROLLING OFFICER'S REPLY**ENB076****(Question Serial No. 1104)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

On popularisation of electric vehicles (EVs) in Hong Kong, would the Government advise this Committee on the following:

1. Please set out in detail the numbers of EV chargers and car parks for public use in Hong Kong by District Council district.
2. Please set out the number of newly registered EVs in the past year;
3. How many EV charging facilities are constructed by the Government every year? What is the expenditure?
4. As the Government is taking the lead in promoting EVs, please set out the numbers of EV charging facilities under construction or planned to be constructed in government buildings;

Asked by: Hon HO Kwan-yiu, Junius (LegCo internal reference no.: 25)Reply:

1. The numbers of public electric vehicle (EV) chargers provided at government and private car parks which are open for public use as well as the numbers of these car parks with a breakdown by 18 districts of Hong Kong as at the end of December 2018 are as follows:

District	No. of car parks	No. of chargers			
		Standard	Medium	Quick	Sub-total
Central & Western	18	62	110	36	208
Eastern	28	28	63	52	143
Southern	11	4	11	27	42

Wan Chai	28	67	117	35	219
Kowloon City	11	64	1	15	80
Kwun Tong	41	214	81	42	337
Sham Shui Po	13	15	42	37	94
Wong Tai Sin	8	24	46	9	79
Yau Tsim Mong	38	101	42	50	193
Kwai Tsing	12	25	9	33	67
Tsuen Wan	17	17	46	9	72
Sai Kung	13	24	31	25	80
North	11	24	25	12	61
Tai Po	5	28	3	7	38
Sha Tin	27	77	44	47	168
Yuen Long	14	46	33	18	97
Tuen Mun	11	10	10	17	37
Islands	12	14	110	27	151
Total	318	844	824	498	2 166

2. The number of newly registered EVs in Hong Kong for the past year is 497. Government vehicles are not included in this number as they are not required for registration.

3. On the development of public charging networks as supplementary facilities, the Government not only takes the lead in providing and enhancing its public charging facilities at government car parks but also supports private establishments to set up and enhance non-governmental public charging networks. Regarding the government public charging networks, the Government took the lead in 2012 to install 500 public chargers at government public car parks managed by the Transport Department (TD) and government car parks managed by the Government Property Agency (GPA) which are open for public use. To improve the charging efficiency, the Environmental Protection Department (EPD) has progressively upgraded standard chargers to medium chargers in the past few years (as compared with standard chargers, medium chargers can reduce the charging time by up to 60%). As at the end of 2018, EPD has installed 519 chargers, among which 364 are medium chargers, at 425 parking spaces (representing 7% of the relevant parking spaces) at those government car parks managed by the TD and the GPA which are open for public use. The details of and expenditure on enhancing public charging facilities at the above car parks in the past 5 years are as follows:

Year	No. of public EV charging facilities enhanced	Expenditure (\$m)
2014-15	100 medium chargers	1.28
	Installation of electrical installations of quick chargers for taxis at 6 car parks	1.49
	6 medium charging posts at outdoor car parks *	0.55

2015-16	6 medium charging posts at outdoor car parks *	0.23
2016-17	Upgrading 174 standard chargers to medium chargers and installation of 5 medium charging posts at outdoor car parks	2.94
2017-18	Upgrading 96 standard chargers to medium chargers	1.32
2018-19	**	**
Total		7.81

* The expenditure on 6 medium charging posts at outdoor car parks spanned over two financial years

** The EPD completed the work for upgrading the standard chargers provided at the car parks of the TD and the GPA which are open for public use to medium chargers in February 2018. Apart from 61 standard chargers located at the TD car parks which will be demolished and 94 chargers which have both standard and medium charging functions, standard chargers at the car parks of the TD and the GPA that are open for public use have all been upgraded to medium chargers.

4. The Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the TD, the GPA and the Leisure and Cultural Services Department which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. The anticipated number of facilities and estimated expenditure are as follows:

Year	No. of proposed additional medium public EV charging facilities	Estimated expenditure (\$m)
2019-20	About 170 medium chargers	17
2020-21	About 600 medium chargers	60
2021-22	About 430 medium chargers	43

Remarks: The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

- End -

CONTROLLING OFFICER'S REPLY

ENB077

(Question Serial No. 1105)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

In recent years, the image of “Big Waster”, the mascot of the Environmental Protection Department, has taken roots in people’s minds. However, the daily quantity of food waste disposed of in Hong Kong in 2016 reached as high as 3 600 tonnes. Using this as a standard, if we compare the actual disposal quantity with the target set out in *A Food Waste & Yard Waste Plan for Hong Kong* published by the Government a few years ago, it is clear that the target has not been met. In the connection, would the Government advise this Committee on the following:

1 Regarding the promotion of the Food Wise Hong Kong Campaign in the past 3 financial years, please provide (i) the specific measures; (ii) the progress of the Campaign; (iii) the number of participating merchants; and (iv) the manpower and expenditure involved;

2 The numbers of domestic units, housing estates, restaurants and public organisations participated in food waste recovery in the past 3 financial years;

3 Has the Government been working to reduce food waste at source? If yes, please set out in detail the work, manpower and expenditure involved? If not, will the Government step up its efforts in this aspect in future?

Asked by: Hon HO Kwan-yiu, Junius (LegCo internal reference no.: 26)

Reply:

(1) & (3) The Food Wise Hong Kong Campaign (the Campaign) has promoted a food wise and waste less culture and encouraged behavioural change to reduce food waste at source in the community through various schemes and activities since its launching in 2013. The schemes and activities include:

- The Food Wise Charter – As at February 2019, about 800 organisations have signed the Food Wise Charter and are committed to reducing food waste at source. The

signatories include public organisations and public utilities, commercial and industrial (C&I) sectors, food and beverage sectors, hotel sector, property development and management sectors, higher education institutions, secondary schools, primary schools, kindergartens, etc.

- “Food Wise” Talk – As at February 2019, 104 “Food Wise” talks were held by the Government with a total of over 10 000 participants. The talks helped promote the “Food Wise” messages and mainly introduced the food waste issues, food waste reduction at source, treatment of food waste, food waste separation and recycling, etc.
- “Food Wise” Roving Exhibition – As at February 2019, a total of 22 roving exhibitions were held by the Government at various districts in Hong Kong to bring the message of food wise and waste less to the community and encourage the public to reduce food waste at source. The roving exhibitions featured display panels with food waste reduction tips, including food trimmings for the second dish recipes, tactics of food storage and purchase management, etc., and let the public share their “Food Wise” wishes and opinions on the exhibition board. The exhibitions attracted a total of over 30 000 visitors.
- The “Big Waster” Facebook and Instagram pages – The “Big Waster” symbolising food wastage in the Campaign has strengthened interaction with supporters, particularly young people, through Facebook and Instagram pages in which information on food waste reduction is provided. Up to February 2019, the “Big Waster” Facebook has received more than 61 000 “likes” and there are over 7 000 “followers” on Instagram.
- The Food Wise Eateries Scheme – To continue to encourage the food and beverage sectors to offer portioned meals for customers to choose from, so as to avoid the generation of food waste. As at February 2019, about 320 and 480 eateries have been awarded with gold class and silver class status respectively.

The manpower involved in the implementation of the Campaign will continue to be absorbed by the existing establishment. The expenditures of the Campaign in the past 3 years are shown in the table below:

Description	Expenditure 2016-17 (\$ m)	Expenditure 2017-18 (\$ m)	Estimated expenditure 2018-19 (\$ m)
Advertising for the Campaign (including those in public transport system, printed materials and electronic platform, etc.)	1	2.1	4
Establishing a supporting website for the Campaign and organising “Food Wise” talks	0.9	0.8	0.5
Organising publicity activities to promote	1.7	1.1	1.8

the Food Wise message, including: - Food Wise Hong Kong Campaign Roving Exhibitions - Promotional activities of the Food Wise Eateries Scheme			
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The Government will continue to enhance the above work in 2019-20 so that the food wise culture can continue to take root in the community.

(2) Since 2010, the Environmental Protection Department (EPD) has been taking forward the “Food Waste Recycling Partnership Scheme” (the Partnership Scheme) with relevant C&I organisations to promote good food waste management to the C&I sectors. Under the Partnership Scheme, the EPD collaborates with District Councils and non-profit-making organisations to hold “Food Waste Reduction Activities” which would last for 3 to 6 months in various shopping malls in different districts on a roving basis, so as to enhance public participation and promote food waste reduction at source to the C&I sectors. The numbers of restaurants and public organisations participated in food waste recycling under the Partnership Scheme and “Food Waste Reduction Activities” in the past 3 financial years are as follows:

Year	Number of participating restaurants	Number of participating public organisations
2016-17	70	2
2017-18	26	4
2018-19 ^{Note(1)}	7	0

Note (1): The quantity of food waste recovered as at the end of June 2018. To tie in with the development of planning and works of Kowloon Bay Action Area, the Pilot Composting Plant in Kowloon Bay has stopped receiving food waste from the end of June 2018 and the associated “Food Waste Recycling Partnership Scheme” and “Food Waste Reduction Activities” have also ended accordingly.

In addition, the Organic Resources Recovery Centre Phase 1 (O • PARK1) was completed and commissioned in July 2018. At present, about 100 tonnes per day of C&I food waste are delivered to the O • PARK1 for recycling. The numbers of participating restaurants and public organisations are as follows:

Year	Number of participating restaurants	Number of participating public organisations
2018-19 ^{Note (2)}	about 180 ^{Note (3)}	70

Note (2): The number of participants from July 2018 to the end of February 2019.

Note (3): Most of the participating restaurants are located in the shopping malls, and its number will vary subject to the rental operation of the malls.

Regarding promoting domestic food waste recycling, since 2011, the EPD has earmarked \$60 million through the Environment and Conservation Fund to implement the “Food Waste Recycling Projects in Housing Estates” to support private housing estates to install food waste composters and organise educational and promotion activities to encourage public participation in food waste recycling, with a view to enhancing their awareness of food waste reduction and recycling. Up to December 2018, a total of 35 housing estates were

supported with a total amount of approved funding of about \$38 million. The housing estates supported with the funding are distributed throughout Hong Kong, Kowloon and the New Territories. The participation in the past 3 years is as follows:

Year	Number of participating housing estates	Number of households who have received information on food waste reduction by participating in food waste recovery projects
2016-17	23	51 500
2017-18	20	45 400
2018-19	21	52 800

- End -

CONTROLLING OFFICER'S REPLY

ENB078

(Question Serial No. 1106)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The air pollution problem in Hong Kong has become increasingly serious. However, there is not much discussion on environmental issues in this year's Budget and the sections relating to climate change and air pollution are just a repetition of the old tale. Traffic is very slow on Hong Kong Island during rush hours and air pollution is aggravated by serious traffic congestion. If the Government fails to come up with solutions in a timely manner, this will cause an irreversible impact on the health of the public. In this connection, would the Government advise this Committee on the following:

1. Please set out the ambient concentration limits for respirable suspended particulates, fine suspended particulates, nitrogen dioxide, sulphur dioxide and ozone in various districts in the past year.
2. The Administration mentioned that a wide range of emission reduction measures are being implemented in respect of motor vehicles and vessels locally. What are the details?
3. What are the budget and manpower for the above work?
4. Will the Administration propose the implementation of electronic road pricing scheme to the Transport Department in future so as to solve the traffic congestion problem in Central completely and reduce the impact of air pollution?

Asked by: Hon HO Kwan-yiu, Junius (LegCo internal reference no.: 27)

Reply:

1. According to the preliminary data recorded at various air quality monitoring stations (AQMSs) by the Environmental Protection Department (EPD) in 2018, the concentrations of respirable suspended particulates (RSP), fine suspended particulates (FSP) and sulphur dioxide (SO₂) all met the relevant Air Quality Objectives (AQOs). Although the concentrations of nitrogen dioxide (NO₂) recorded at some AQMSs in 2018 still exceeded

the concentration limit, the annual average concentrations of ambient and roadside NO₂ have dropped by about 30% respectively from 2013 to 2018, indicating that the emission reduction measures implemented in recent years are effective. As for ozone (O₃), apart from the influence of regional photochemical smog, the vehicle emission control measures implemented in recent years have led to a reduction of vehicular emission of nitric oxide (NO), so there is less NO to react with and titrate O₃, resulting in an increase of O₃ concentration level. The O₃ level at some AQMSs in 2018 still exceeded the concentration limit. Detailed figures are provided at **Annex 1**.

2.&3. The various measures implemented to cope with emissions from local vehicles and vessels as well as the budget and manpower are provided at **Annex 2**.

4. Adopting the concept of “congestion charging” and principle of “efficiency first”, the Electronic Road Pricing Pilot Scheme in Central and its adjacent areas (ERP Pilot Scheme) provides an effective traffic management plan in the hope of changing the drivers’ travel pattern, such as switching to public transport or avoiding driving into the charging zones during peak hours, so as to make efficient use of limited road space. Besides, the overall environment including roadside air quality will also be benefited. The Transport Department (TD) is carrying out a feasibility study on the ERP Pilot Scheme, with a view to formulating a specific proposal for stakeholder consultation in the first half of 2019.

Table 1: The annual average concentrations of pollutants recorded at various AQMSs and the AQOs compliance status in 2018

Long-term (annual) AQOs Note 1		Concentration limit ($\mu\text{g}/\text{m}^3$)		
		RSP	FSP	NO ₂
		50	35	40
Number of exceedances allowed		Not applicable		
Annual average concentrations in 2018 ^{Note 2} ($\mu\text{g}/\text{m}^3$) and compliance with the AQOs (Yes/No)				
AQMS				
General AQMS	Central/ Western	34(Yes)	21(Yes)	39(Yes)
	Eastern	33(Yes)	19(Yes)	39(Yes)
	Kwun Tong	38(Yes)	22(Yes)	43(No)
	Sham Shui Po	32(Yes)	21(Yes)	49(No)
	Kwai Chung	32(Yes)	20(Yes)	55(No)
	Tsuen Wan	30(Yes)	20(Yes)	45(No)
	Tseung Kwan O	28(Yes)	15(Yes)	28(Yes)
	Yuen Long	37(Yes)	20(Yes)	43(No)
	Tuen Mun	42(Yes)	26(Yes)	47(No)
	Tung Chung	31(Yes)	18(Yes)	33(Yes)
	Tai Po	31(Yes)	19(Yes)	36(Yes)
	Sha Tin	32(Yes)	19(Yes)	35(Yes)
	Tap Mun	31(Yes)	17(Yes)	11(Yes)
Roadside AQMS	Causeway Bay	46(Yes)	30(Yes)	87(No)
	Central	34(Yes)	21(Yes)	80(No)
	Mong Kok	36(Yes)	24(Yes)	79(No)

Note 1: There are no long-term AQOs for SO₂ and O₃.

Note 2: The data of 2018 are not yet validated.

Table 2: The short-term concentrations of pollutants recorded at various AQMSs and the AQOs compliance status in 2018

Short-term AQOs		RSP	FSP	NO ₂	SO ₂		O ₃
Average time		24-hour	24-hour	1-hour	10-minute	24-hour	8-hour
Concentration limit (µg/m ³)		100	75	200	500	125	160
Number of exceedances allowed		9	9	18	3	3	9
AQMS		Short-term concentrations in 2018 ^{Note 1} (µg/m ³), number of exceedances (in brackets) and compliance with the AQOs (Yes/No)					
General AQMS	Central/Western	70(2)/ Yes	47(2)/ Yes	159(4)/ Yes	135(0)/ Yes	22(0)/ Yes	164(11)/ No
	Eastern	68(1)/ Yes	39(0)/ Yes	128(0)/ Yes	123(0)/ Yes	12(0)/ Yes	161(10)/ No
	Kwun Tong	78(2)/ Yes	45(0)/ Yes	178(11)/ Yes	51(0)/ Yes	12(0)/ Yes	130(0)/ Yes
	Sham Shui Po	59(0)/ Yes	41(0)/ Yes	152(1)/ Yes	98(0)/ Yes	21(0)/ Yes	147(5)/ Yes
	Kwai Chung	62(0)/ Yes	38(0)/ Yes	196(14)/ Yes	134(0)/ Yes	27(0)/ Yes	133(1)/ Yes
	Tsuen Wan	71(2)/ Yes	48(2)/ Yes	181(9)/ Yes	113(0)/ Yes	21(0)/ Yes	148(9)/ Yes
	Tseung Kwan O	53(0)/ Yes	32(0)/ Yes	135(0)/ Yes	38(0)/ Yes	13(0)/ Yes	169(15)/ No
	Yuen Long	75(4)/ Yes	46(1)/ Yes	150(3)/ Yes	52(0)/ Yes	17(0)/ Yes	162(10)/ No
	Tuen Mun	87(4)/ Yes	53(2)/ Yes	177(11)/ Yes	94(0)/ Yes	20(0)/ Yes	173(18)/ No
	Tung Chung	73(2)/ Yes	48(2)/ Yes	156(7)/ Yes	88(0)/ Yes	19(0)/ Yes	173(14)/ No
	Tai Po	69(0)/ Yes	47(0)/ Yes	125(0)/ Yes	24(0)/ Yes	8(0)/ Yes	167(13)/ No
	Sha Tin	65(1)/ Yes	40(0)/ Yes	149(0)/ Yes	76(0)/ Yes	16(0)/ Yes	182(17)/ No
	Tap Mun	60(0)/ Yes	32(0)/ Yes	51(0)/ Yes	29(0)/ Yes	13(0)/ Yes	184(20)/ No
Roadside AQMS	Causeway Bay	82(1)/ Yes	55(1)/ Yes	277(148)/ No	82(0)/ Yes	19(0)/ Yes	78(0)/ Yes
	Central	74(1)/ Yes	50(1)/ Yes	257(120)/ No	101(0)/ Yes	20(0)/ Yes	96(0)/ Yes
	Mong Kok	73(2)/ Yes	51(2)/ Yes	243(48)/ No	88(0)/ Yes	19(0)/ Yes	97(0)/ Yes

Note 1: The data of 2018 are not yet validated. The short-term RSP, FSP and O₃ concentrations were the tenth highest level, the short-term NO₂ concentrations were the nineteenth highest level and the short-term SO₂ concentrations were the fourth highest level.

Measures to cope with emissions from local vehicles and vessels

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved
Vehicles – new measures planned for implementation		
<p>1. Tightening the emission standards of first registered motorcycles (MCs), light buses (design weight of more than 3.5 tonnes) and buses (design weight of not more than 9 tonnes)</p>	<p>In view of the current adequate supply of Euro IV compliant MC models and the latest projection of supply of Euro VI compliant light bus and bus models, the Government recommends:</p> <p>(i) tightening the emission standards of first registered MCs to Euro IV, in second half of 2020; and</p> <p>(ii) tightening the emission standards of first registered light buses (design weight of more than 3.5 tonnes) and buses (design weight of not more than 9 tonnes) to Euro VI, On-Board Diagnostics (OBD) Phase C, starting from early 2021.</p>	<p>This is part of the EPD’s routine work on improving the air quality. There is no separate breakdown on the expenditure involved.</p>
<p>2. Trial of retrofitting Euro IV and V double-deck franchised buses with enhanced selective catalytic reduction (SCR) systems</p>	<p>The Government plans to fully subsidise the franchised bus companies to conduct a trial of retrofitting Euro IV and V diesel double-deck buses of the dominant bus models with enhanced SCR systems, so as to establish its technical feasibility and to confirm the emission reduction performance of the enhanced SCR systems from different suppliers under local road conditions and operational conditions. The trial is expected to be completed by 2021.</p>	<p>To retrofit not more than 60 Euro IV and V double-deck franchised buses with enhanced SCR systems, the estimated cost of the trial is about \$38 million.</p> <p>The relevant workload is partly absorbed with the existing resources of the EPD and Transport Department (TD). The EPD will create 2 additional two-year time-limited posts (until end of March 2021; including 1 Environmental Protection Officer and 1 Environmental Protection Inspector) to undertake and follow up on the relevant trial.</p> <p>The TD will also create 2 two-year time-limited posts (until end of March 2021, including 1 Transport Officer II and 1 Motor Vehicle Examiner I) to undertake the relevant work.</p>

3. Reviewing the scope of the Pilot Green Transport Fund (PGTF)	To further facilitate the transport sectors to try out green innovative transport technologies and the wider use of those green innovative transport technologies that have been proved to be relatively mature and suitable for adoption locally, the Government will review the PGTF.	The relevant workload is partly absorbed with the existing resources of the EPD and 2 additional five-year time-limited posts (until end of March 2024; including 1 Environmental Protection Officer and 1 Senior Environmental Protection Inspector) will be created to undertake and follow up on the relevant recommendations.
4. Phasing out Euro IV diesel commercial vehicles (DCVs)	<p>The Government has proposed to launch an incentive-cum-regulatory programme to phase out Euro IV DCVs by the end of 2023.</p> <p>To continuously improve roadside air quality, the EPD plans, by making reference to the existing scheme of phasing out pre-Euro IV DCVs, to adopt an incentive-cum-regulatory approach to progressively phase out about 40 000 Euro IV DCVs by the end of 2023 on a mandatory basis, and grant an ex-gratia payment to owners who scrap and de-register their Euro IV DCVs by the specified deadlines. After the specified deadlines, the licences of relevant DCVs will not be renewed. We are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course. We are striving to report the detailed arrangements to the Advisory Council on the Environment and the Panel on Environmental Affairs of the Legislative Council in late 2019/early 2020 after working out the implementation details and consulting the trade.</p>	If positive feedback is received in the consultation with the transport trade, we will seek funding from the Finance Committee of the Legislative Council in a timely manner for the ex-gratia payment scheme and seek manpower resources if necessary.
Vehicles – Prevailing measures		
5. Encouraging the use of environment-friendly (EF) commercial vehicles	Since April 2008, the Government has launched the Tax Incentives Scheme for EF Commercial Vehicles to encourage vehicle owners to choose EF commercial vehicles with exhaust emissions that out-perform the prevailing statutory emission standards.	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.

	The qualifying standards for EF commercial vehicles are reviewed and updated annually in the light of vehicle technological advancement such that the tax incentive is available only to vehicles of outstanding environmental performance.	
6. Pilot Green Transport Fund (PGTF)	The PGTF was set up in March 2011 for application by the public transport sectors, goods vehicle operators and charitable / non-profit making organisations to try out green innovative transport technologies.	<p>Funding of \$300 million was approved for setting up the Fund. As at the end of February 2019, the total amount of subsidy approved was about \$139 million.</p> <p>The relevant workload has been partly absorbed with the existing resources of the EPD and 4 additional five-year time-limited posts (until end of March 2021; including 1 Senior Environmental Protection Officer, 1 Environmental Protection Officer, 1 Environmental Protection Inspector and 1 Assistant Clerical Officer) have been created to undertake the relevant work.</p>
7. Trial of electric buses	Funding was approved to fully subsidise the franchised bus companies to procure 36 single-deck electric buses (including 8 supercapacitor buses and 28 battery-electric buses) for conducting a two-year trial on different routes.	Funding of \$180 million was approved in 2012 for conducting the trial. The relevant workload has been partly absorbed with the existing resources of the EPD and the TD. The EPD and the TD have created 3 two-year time-limited posts (until end of March 2014; including 1 Environmental Protection Officer, 1 Senior Environmental Protection Inspector and 1 Motor Vehicle Examiner I) to undertake the relevant work. Afterwards, the TD has further created a four-year time-limited Transport Officer I post (until end of 2020) to cope with the relevant work of the trial.
8. Phasing out pre-Euro IV diesel commercial vehicles (DCVs)	The EPD launched an incentive-cum-regulatory scheme in March 2014 with an aim to progressively phasing out by end of 2019 some 82 000 pre-Euro IV DCVs. Moreover, the EPD	Funding of about \$11.4 billion was approved for implementation of the ex-gratia payment scheme.

	<p>has also set a limit on the service life of DCVs newly registered on or after 1 February 2014 at 15 years.</p>	<p>The workload for implementing the ex-gratia payment scheme has been partly absorbed with the existing resources of the EPD and the TD. Moreover, 3 time-limited posts in the EPD (from 2013-14 to 2019-20; including 1 Senior Environmental Protection Officer, 1 Environmental Protection Officer and 1 Environmental Protection Inspector) have been created to implement to scheme. In addition, the TD has created in phases a maximum of 25 time-limited posts (reduced to 18 in 2019-20; including 1 Senior Executive Officer, 1 Executive Officer I, 1 Executive Officer II, 2 Clerical Officers, 8 Assistant Clerical Officers, 1 Motor Vehicle Examiner I, 1 Motor Vehicle Examiner II and 3 Vehicle Testers) in the above years according to the progress of the scheme to handle the applications for the ex-gratia payment scheme.</p>
<p>9. Strengthening the control of emissions from petrol and liquefied petroleum gas (LPG) vehicles</p>	<p>The EPD has been using roadside remote sensing equipment to identify petrol and LPG vehicles emitting excessively since 1 September 2014. For a vehicle found emitting excessively, the EPD will issue an Emission Testing Notice to its owner. The owner is required to rectify the excessive emission problem and send the vehicle to a Designated Vehicle Emission Testing Centre for an emission test with the aid of a chassis dynamometer within 12 working days so as to confirm the rectification of the excessive emission problem. If the owner fails to send the vehicle to the testing centre, or the vehicle fails to pass the emission test, the licence of the vehicle concerned will be cancelled by the TD.</p>	<p>The relevant workload has been partly absorbed with the existing resources of the EPD. In addition, the EPD will create 1 Environmental Protection Inspector post in 2019-20 to enhance its work on the control of emissions.</p>

10. Setting up franchised bus low emission zones (FBLEZs)	To improve roadside air quality and protect public health, the Government set up FBLEZs at the busy road sections in Causeway Bay, Central and Mong Kok at the end of 2015, allowing only low emission franchised buses (including buses of Euro IV or above, or Euro II and III buses retrofitted with SCR devices and diesel particulate filters) to run in these zones.	This is part of the EPD's routine work on improving air quality. There is no separate breakdown on the expenditure involved.
11. Implementing Euro VI emission standards for newly registered vehicles	The Government has tightened in phases by vehicle type the emission standards for newly registered vehicles to Euro VI starting from 1 July 2017, and has tightened the emission standards for newly registered diesel private cars to California LEV III starting from 1 October 2017.	This is part of the EPD's routine work on improving air quality. There is no separate breakdown on the expenditure involved.
Vessels – Existing measures		
12. Controlling the sulphur content of locally supplied marine light diesel	The sulphur content of locally supplied marine light diesel has been capped at 0.05% since 1 April 2014.	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.
13. Requiring vessels to use compliant fuel	Vessels are required to use compliant fuel (including low-sulphur fuel with sulphur content not exceeding 0.5%) within Hong Kong waters starting from 1 January 2019 to dovetail with the control of the marine emission control areas in Mainland waters.	The relevant work has been undertaken by existing manpower and resources of EPD. There is no separate breakdown on the expenditure involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB079

(Question Serial No. 1107)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Government has begun the placement of “three-colour recycling bins” since 1998, which are used to collect waste paper, aluminum cans and plastic bottles respectively. Unfortunately, the “three-colour recycling bins” have often been mistaken by some members of the public as rubbish bins such that the waste has not been thrown to the correct recycling bins. In this connection, would the Government advise this Committee on the following:

1 What were the total numbers of “three-colour recycling bins” placed throughout Hong Kong in each of the past 3 years?

2 What were the respective average recovery rates and disposal quantities of waste plastics, paper and waste metals in each of the past 3 years?

3 Has the Administration reviewed the effectiveness of “three-colour recycling bins” in waste recycling, including aspects such as their locations and quantities of waste collected?

4 Regarding the low public awareness about recycling with “three-colour recycling bins”, will the Government consider enhancing public awareness about recycling, such as requiring security guards in the housing estates to monitor the recycling situation of the residents so as to raise the value of the recyclables and the recycling rate?

Asked by: Hon HO Kwan-yiu, Junius (LegCo internal reference no.: 28)

Reply:

1. In the past 3 years, the Government placed about 16 000 sets of waste separation bins throughout the territory, including public places, schools, government quarters, country parks, as well as housing estates and commercial and industrial (C&I) buildings which had participated in the Source Separation of Waste Programme. Apart from the recycling bins (RBs) provided by the Government, additional RBs are also placed by

many housing estates or C&I buildings on their own. The Environmental Protection Department (EPD) does not have the number of RBs placed by these housing estates or C&I buildings on their own.

- From the reports on “Monitoring of Solid Waste in Hong Kong” compiled by the EPD, the statistics on the quantities of waste plastics, waste paper and waste metals (including ferrous metals and non-ferrous metals) disposed of at landfills and their recovery rates between 2015 and 2017 are shown in the table below. The relevant waste statistics for 2018 are still under compilation.

		2015	2016	2017
Waste plastics	Disposal quantity (Thousand tonnes)	797	780	775
	Recovery rate (%)	11%	14%	13%
Waste paper	Disposal quantity (Thousand tonnes)	824	821	924
	Recovery rate (%)	52%	50%	46%
Waste metals (including ferrous metals and non-ferrous metals)	Disposal quantity (Thousand tonnes)	86	88	92
	Recovery rate (%)	92%	91%	90%

- Having regard to the objectives of facilitating waste reduction and resource recovery, the effective implementation of municipal solid waste (MSW) charging, and balancing the need of upholding environmental hygiene and cost-effectiveness in the use of public resources, the Steering Group on the Modification of Recycling and Refuse Collection Facilities in Public Places (the Steering Group) was set up by the Environment Bureau in 2016 under the chairmanship of the Secretary for the Environment. The Steering Group comprises members drawn from the relevant sectors⁵, and is tasked with reviewing the distribution and design of recycling and refuse collection facilities in public places in a more systematic manner, and recommending modifications. In respect of the review on the number and distribution of RBs and litter containers (LCs) in public places, having regard to a set of general planning parameters recommended by a consultancy study, relevant government departments have put forward an adjustment plan. It is expected that the number of RBs will be increased by 45% while the number of LCs will be reduced by 40% in public places when MSW charging is implemented, enhancing the overall RB to LC ratio in public places from 1:14 to 1:6.

The study also recommended that additional specific RBs dedicated to collect certain types of recyclables (e.g. waste paper) should be provided at appropriate locations (e.g. exits of MTR stations where typically more waste paper has been collected) to facilitate resource recovery. Moreover, RBs and LCs should be placed at strategic locations

⁵ Including design and planning, academia, business, non-profit-making groups, district personalities, as well as relevant government departments.

(e.g. crossroads, entrances and exits of venues) to provide the public with greater certainty on their placement, which would help encourage their use.

The consultant engaged by the Steering Group has come up with the conceptual design of the new RBs and LCs in public places and is tapping the views of frontline staff and relevant stakeholders before putting up the recommendations to the Steering Group for consideration.

4. The Government has been attaching great importance to promoting the “Use Less, Waste Less” culture and vigorously promoting waste reduction at source and clean recycling at different levels of the community. We will continue to disseminate the message of clean recycling through different channels, including the Announcements in the Public Interests, posters, leaflets and the free mobile application “Waste Less” to let the public know why we have to practise clean recycling and how to separate waste properly. Since 2015, the EPD has been taking forward the Clean Recycling Campaign and has been committed to promoting source separation of waste at the community level. We encourage members of the public to practise clean recycling so as to increase the quantity, quality and value of the recyclables, thereby turning more waste into resources. To enhance on-site support for recycling, outreaching teams are being set up under the EPD. These outreaching teams will collaborate closely with community partners to educate the public on the importance of waste reduction at source, and assist them to practise waste separation at source and clean recycling properly, as well as identify proper outlets for recyclables to tie in with the implementation of various waste reduction measures, such as the MSW charging. The outreaching teams will strive to establish and maintain a direct liaison network with different stakeholders, including property management companies, cleansing workers, residents’ organisations, District Councils and local representatives, etc. Since December 2018, the outreaching teams have launched pilot outreaching services in 3 districts (i.e. Eastern District, Kwun Tong and Sha Tin). Actual experiences gained will serve as reference for gradual expansion of the outreaching services to all districts in Hong Kong in future.

- End -

CONTROLLING OFFICER'S REPLY

ENB080

(Question Serial No. 1108)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Government has previously launched the "One-for-One Replacement" Scheme for electric vehicles (EVs), and shortened the ownership period of old private cars by their car owners to 18 months for enjoying a maximum tax concession of \$250,000 from the Government. In this connection, would the Government advise this Committee on the following:

1. Does the Government have confidence to realise its vision of increasing the share of EVs in Hong Kong to 30% by 2020? What is the package of measures?
2. Over 10 million passenger trips are made by public transport every day, and 90% of the members of the public rely on public transport to go to school or work. Will the Government promote electrification of public transport shortly? If yes, what is the package of measures? If no, what are the reasons?
3. The objective of the establishment of the Steering Committee on the Promotion of Electric Vehicles is to gauge the views from all sectors in order to formulate policies on EVs. However, the total number of EVs has not been increased substantially in recent years. What are the details of the work plans of the Committee in the next 5 years?

Asked by: Hon HO Kwan-yiu, Junius (LegCo internal reference no.: 29)

Reply:

1. The Government has already clarified this issue in its reply to a Legislative Council question on 20 April 2016. This was once mentioned in the Public Consultation on Hong Kong's Climate Change Strategy and Action Agenda released in September 2010 in the description of a hypothetical scenario. Under the scenario where 30% of private cars (PCs) were electric vehicles (EVs) and hybrid vehicles or other vehicles with similar performance in 2020, the Government saw the need to encourage new developments to provide more EV charging-enabling parking spaces and more charging facilities at their car parks to cater for the future increase in the number of EVs. The Government thus amended Chapter 8 of the

Hong Kong Planning Standard and Guidelines (“HKPSG”) in May 2011 to incorporate additional guidelines on “Electric Vehicle Charging Facilities” into the HKPSG, recommending new developments concerned to install EV charging-enabling facilities for all car parking spaces and that at least 30% of car parking spaces for PC should be provided with EV charging facilities where appropriate. The description of a “target” in HKPSG is simply made on the basis of the above hypothetical scenario. The Government has not set any target on individual type of vehicles.

Hong Kong is a free market. The Government’s policy on promoting EVs is to establish measures to encourage and assist market development. In fact, the sales of EVs can be affected by various factors (such as local conditions, development of EVs and the related technologies, economic situations, EV prices, vehicle owners’ preferences and availability of suitable EV models and their supply), which are not predictable by the Government.

The Government’s key measures for promoting the use of EVs include the following:

- (1) The Government has waived the first registration tax (FRT) for all EVs for the first time in 1994. The current FRT concession arrangements for EVs are as follows:
 - a) Electric commercial vehicles (e-CVs) (including goods vehicles, buses, light buses, taxis and special purpose vehicles), electric motor cycles and electric motor tricycles: their FRT continues to be waived in full from 1 April 2018 to 31 March 2021;
 - b) Electric private cars (e-PCs): A tiered structure is implemented -
 - i) except for eligible PC owners (see (b)(ii) below), FRT for e-PCs continues to be waived up to \$97,500 from 1 April 2018 to 31 March 2021, as at present.
 - ii) a “One-for-One Replacement” Scheme is launched from 28 February 2018 to 31 March 2021 (both days inclusive), allowing PC owners who arrange to scrap and de-register their own eligible old PC (PC with an internal combustion engine or e-PC) and then first register a new e-PC to enjoy a higher FRT concession up to \$250,000.
- (2) Enterprises which procure EVs are allowed full profit tax deduction for the capital expenditure on the vehicle in the first year of procurement;
- (3) A \$300 million Pilot Green Transport Fund (PGTF) has been put in place since March 2011 to subsidise the transport sectors to try out green innovative transport technologies, including e-CVs;
- (4) \$180 million was allocated to fully subsidise the franchised bus companies to acquire 28 single-deck battery-electric buses, 8 single-deck supercapacitor buses and related charging facilities for trials on a number of routes to assess their operational efficiency and performance in local conditions;
- (5) Since April 2011, the Government has tightened its requirements where, instead of allowing car parks in new private buildings to be fully exempted from gross floor area (GFA) calculations as in the past, only underground car parks provided with EV charging-enabling infrastructure (including the provision of switchboards, distribution boards, cabling, conduits and trunking) at each parking space can be fully exempted from GFA calculations. If owners of such parking spaces purchase EVs in future, they may install the

required chargers and apply for electricity meter connection at their parking spaces for daily charging of their EVs, and they will not be hindered from installing the required EV chargers due to constraints in respect of power supply capacity, cabling and conduits, etc.

(6) In June 2011, the HKPSG was amended to recommend 30% of the parking spaces for PCs to be installed with EV charging facilities;

(7) The Environmental Protection Department (EPD) established a dedicated team and a service hotline (3757 6222) to provide information and technical support to interested parties in setting up EV chargers. Moreover, the Government has also issued guidelines on the arrangements and technical requirements for installing charging facilities; and

(8) Subject to the availability of suitable EV models in the market and the performance of the EVs in meeting the operational needs of government departments, the Government will continue to procure EVs to replace the vehicles due to retire.

2. The Government has been adopting a public transport-oriented policy. Among others, railway provides high capacity and convenient services. It is a green and efficient mass transit. Thus, the Government has all along adopted railway as backbone of the public transport system, while coordinating the complementarity among different public transport services. At present, the Mass Transit Railway serves an average of over 5.4 million passengers per day, which account for 43% of the total passenger trips made on public transport.

As regards promoting the use of EVs in other public transport, high production cost, limited service life, long charging time and low energy density of e-CV batteries are the key constraints for e-CVs to become popular. The hilly terrain in Hong Kong and the need to provide air-conditioning during summer driving also reduce the driving range of e-CV batteries. Therefore, the current e-CV technologies are yet to be able to cope with the operational requirements of the local taxis and light buses. All the 3 electric taxis that were once trialed under PGTF have been re-registered as private cars after completion of the trials because taxis generally run almost a whole day and under normal operation cannot spare 4 hours a day for charging. Electric light buses also have experienced similar problems. The electric light buses trialed under PGTF, after a full charge taking 4 hours, had a driving range lower than the daily mileage of a typical public light bus.

In regard of franchised buses, the feasibility of deploying electric bus services throughout or in individual areas of Hong Kong depends very much on the maturity of development of electric bus technologies, their prices and suitability for use in Hong Kong. It is incumbent upon us to fully test and prove that the relevant technology is suitable for the local environment and the actual modus operandi of the public transport sector before introduction of electric buses on a large scale.

There are about 6 100 franchised buses in Hong Kong. About 95% of them are double-deckers and the remaining are single-deckers. Currently, the technology of double-deck electric buses is still developing and there are very few models available in the international arena. Furthermore, their passenger carrying capacity and operational efficiency still cannot meet the operational needs in Hong Kong. We will keep in view the development in other places and introduce trials in due course. Besides, the EPD is now

working with the two franchised bus companies to preliminarily explore the feasibility of developing double-deck franchised electric buses suitable for local use.

Regarding the single-deck electric buses, as mentioned in the reply to part (4) of question 1 above, the Government is fully subsidising the franchised bus companies to acquire 36 single-deck electric buses for conducting a two-year trial to test out their operational efficiency and performance in local conditions. Currently, 26 battery-electric buses and 6 supercapacitor buses have commenced operation. Subject to the outcome of the trial, the Government will promote wider use of single-deck electric buses by the franchised bus companies, taking into account the affordability of the franchised bus companies and passengers.

3. The Steering Committee on the Promotion of Electric Vehicles, established in 2009 and chaired by the Financial Secretary, advises the Government on strategies and initiatives in promoting the use of EVs. These policies and initiatives are formulated and implemented by relevant bureaux and departments under the coordination of the Environment Bureau.

The Government's key plans on promoting the use of EVs in the coming years include the following:

- (1) Conduct a timely review before the expiry of the current FRT concession arrangements for EVs on 31 March 2021;
- (2) For e-CVs,
 - (i) Review the subsidy scope of PGTF to further promote wider use of green innovative transport technologies by the transport sectors, including e-CVs. We aim to complete the review in 2019;
 - (ii) For franchised buses, the trial of single-deck buses will be continued. Subject to the outcome of the trial, the Government will promote wider use of single-deck electric buses by the franchised bus companies, taking into account the affordability of the franchised bus companies and passengers. We will keep in view the development of double-deck electric buses in other places and explore with the franchised bus companies the feasibility of developing double-deck electric buses suitable for local use so as to introduce the trial of double-deck electric buses in due course.
- (3) For e-PCs,
 - (i) Allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the Transport Department, the Government Property Agency and the Leisure and Cultural Services Department which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700;

- (ii) Identify suitable on-street parking spaces to install EV chargers on a trial basis and explore suitable locations to set up pilot quick charging stations for EVs; and
- (iii) Continue to strengthen communication, publicity and education, and provide technical assistance for building owners, property management companies and owners' corporations to facilitate their installation of EV charging facilities. The Government will also explore feasible measures to promote the provision of EV charging-enabling infrastructure or chargers in existing private buildings.

- End -

CONTROLLING OFFICER'S REPLY

ENB081

(Question Serial No. 1109)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Ex-gratia Payment Scheme for Phasing Out Pre-Euro IV Diesel Commercial Vehicles is implemented by the Government to subsidise vehicle owners to replace their Euro IV and pre-Euro IV diesel commercial vehicles (DCVs), and the application deadline for the scheme is end of 2019. In this connection, would the Government advise this Committee on the following:

1 What is the current work progress of the scheme to phase out pre-Euro IV DCVs? What are the amounts involved?

2 Will the Administration conduct a review after completion of the scheme? If yes, when will the review be conducted?

Asked by: Hon HO Kwan-yiu, Junius (LegCo internal reference no.: 30)

Reply:

Diesel commercial vehicles (DCVs) are a major source of roadside air pollution in Hong Kong. To improve roadside air quality and better protect public health, the Environmental Protection Department launched an incentive-cum-regulatory scheme in March 2014 to phase out by end of 2019 progressively some 82 000 pre-Euro IV DCVs with a funding of \$11.4 billion for offering an ex-gratia payment to the affected vehicle owners. The ex-gratia payment applications for pre-Euro, Euro I and II DCVs closed at the end of 2015, end of 2016 and end of 2017 respectively. The ex-gratia payment applications for Euro III DCVs will close at the end of 2019. As at end of February 2019, about 67 200 DCVs have been granted an ex-gratia payment, which represented about 82% of the eligible vehicles, involving a subsidy amount of about \$9.1 billion. The Government is closely monitoring the overall implementation of the scheme and will conduct a review of its effectiveness after completion of the scheme at the end of 2019.

- End -

CONTROLLING OFFICER'S REPLY

ENB082

(Question Serial No. 2735)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

165. The Government announced last month the relaxation of eligibility criteria of the "One-for-One Replacement" Scheme for electric private cars, raising the number of eligible vehicles under the scheme substantially by 30 per cent to over 250 000.

Question

Would the Administration advise this Committee on the following:

1. The numbers of applications from car owners and vehicles under the "One-for-One Replacement" Scheme for the recent 3 years.
2. The approval rates of applications under the "One-for-One Replacement" Scheme for the recent 3 years.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 7)

Reply:

To strike a balance between the objectives of promoting the use of electric private cars (e-PCs) and not increasing the overall number of private cars (PCs) at the same time, the Government introduced the "One-for-One Replacement" Scheme (the Scheme) on 28 February 2018 to encourage existing PC owners to choose electric vehicles (EVs) when they need to replace their cars. Purchasers of e-PCs who scrap and de-register their eligible old PCs can enjoy a higher first registration tax concession.

Having examined the views from members of the public after the implementation of the Scheme, the Government has decided to relax the eligibility criteria of ownership period and licensed period of an "old PC" under the Scheme with effect from 28 January 2019 until the end of the Scheme (i.e. 31 March 2021). After relaxing the relevant criteria, the number of eligible vehicles has increased by 30% to more than 250 000.

A total of 398 applications were received by the Transport Department since the introduction of the Scheme in February 2018 until the end of February 2019, involving 345 vehicle owners and 398 old PCs. Among the above applications, 389 were approved,

representing 99% of the 392 processed applications. In addition, 3 applications were rejected for not complying with the eligibility criteria and 6 applications were still under processing.

- End -

CONTROLLING OFFICER'S REPLY

ENB083

(Question Serial No. 2741)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Provision of air quality information and Air Quality Health Index to the public; questions on Air Quality Objectives (AQOs)

- 1 What are the functions of the AQOs? Do their functions include improving public health? If not, what are the reasons?
- 2 It is learnt that the Government is recommending relaxing the number of exceedances for AQOs to 35 times. How does this recommendation align with the Environmental Protection Department's principle of carrying out its work in seeking to achieve and maintain satisfactory air quality?
- 3 If the number of exceedances for AQOs is relaxed, what is its effectiveness in maintaining satisfactory air quality?
- 4 Will tightening of the AQOs further increase the difficulty for public works in Hong Kong in passing the environmental impact assessment? If yes, what are the reasons?
- 5 Further to the above question, is there any assessment on which public works will be affected?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 17)

Reply:

1. For protection of public health, the World Health Organisation (WHO)'s "Air Quality Guidelines" (the Guidelines) have formulated a set of ultimate targets and interim targets (ITs) for various key air pollutants including respirable suspended particulates (RSP/PM₁₀), fine suspended particulates (FSP/PM_{2.5}), sulphur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), carbon monoxide (CO) and lead (Pb), based on a wealth of studies on the effects of air pollution on health. The WHO ultimate targets and ITs enable governments to, having regard to their local circumstances, progressively improve their air quality through setting their air quality standards at the ITs and implementing measures with a view to meeting the WHO ultimate targets. The Guidelines state that the air quality standards set in each country will vary according to specific approaches to balancing risks to health, technological feasibility, economic considerations and other political and social factors.

Improving air quality is a goal that various local governments are continuously striving for. At present, no country has fully adopted the WHO ultimate targets as its air quality standards.

The air quality management policy of Hong Kong is to continuously improve air quality to progressively achieve the WHO ultimate targets to protect public health, through implementation of a range of measures to reduce emissions from various sources such as power stations, industrial activities, road vehicles, etc. The Government will continue to introduce measures by making reference to international practices, the latest technological developments and local circumstances with a view to achieving the WHO ultimate targets.

To progressively achieve the WHO ultimate targets, we have to set an interim goal for developing short term air quality improvement plans according to the Guidelines. The AQOs are the interim goal with which we can progressively achieve the WHO ultimate targets. The setting of AQOs in accordance with the WHO ITs enables us to evaluate the progress of the air quality improvement. In addition, the AQOs in Hong Kong have a statutory role which serve as a benchmark for the Environmental Protection Department (EPD) to consider designated projects under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) as well as a key factor to be considered when the EPD decides whether a licence should be issued to a specified process under the Air Pollution Control Ordinance. While we are implementing measures to continuously improve our air quality, we have to tighten the statutory AQOs accordingly to ensure that the requirements and levels of air pollution control on designated projects and specified processes be strengthened correspondingly.

2. and 3.

Completed in December 2018, the AQOs review proposed tightening of the AQOs. One of them is to tighten the annual AQO for FSP/PM_{2.5} from IT-1 level (35µg/m³) to IT-2 level (25µg/m³) and its 24-hr AQO from IT-1 level (75µg/m³) to IT-2 level (50µg/m³) with the number of exceedances allowed increased from the current 9 to 35.

To minimise non-compliance of AQOs or ITs owing to uncontrollable factors such as extreme weather, the WHO explicitly states in the WHO Guidelines that for legally binding standards, quantifiable compliance criteria in the form of number of acceptable exceedances, should be defined. For Hong Kong, uncontrollable factors affecting concentrations of particulate matters (including PM_{2.5}) include unfavourable meteorological conditions or regional air pollution influence. Hence, we need to consider uncontrollable exceedances for setting suitable number of allowable exceedances in accordance with the WHO Guidelines. Setting the number of allowable exceedances at 35 as proposed in the review is in line with the WHO Guidelines. In Europe, according to the principle of avoiding uncontrollable exceedances such as those due to transboundary pollution and extreme weather, the European Union also sets the number of allowable exceedances for the 24-hour PM₁₀ standard at 35 times per year

The AQOs comprise 2 elements: the pollutant concentration limit and the number of allowable exceedances. When we compare different AQOs, it is necessary to consider both the concentration limit and the number of allowable exceedances, instead of just comparing the number of allowable exceedances. The revision of the 24-hr AQO for PM_{2.5} to IT-2 level (50µg/m³) with the number of allowable exceedances at 35 is

undoubtedly more stringent than the current one (i.e. IT-1 level ($75\mu\text{g}/\text{m}^3$) with the number of allowable exceedances at 9).

4. and 5.

As stated above, the revision of the 24-hr AQO for $\text{PM}_{2.5}$ to IT-2 level ($50\mu\text{g}/\text{m}^3$) with the number of allowable exceedances at 35 is more stringent than the current one. Therefore, the adoption of this new AQO can raise the standard for assessing the impacts of designated projects on air quality under the EIAO. As the tightening of AQOs proposed in the review has yet to be implemented, we are unable to assess which public works will be affected in future.

- End -

CONTROLLING OFFICER'S REPLY

ENB084

(Question Serial No. 2767)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the Community Green Stations (CGSs), please advise on:

1. the types of waste collected at the CGSs in service and the recovery quantities in each quarter of 2018 (if different types of waste plastics are collected by the CGSs, please specify), as well as the actual whereabouts of various types of waste collected;
2. the latest number of recyclable collection points at the districts where the CGSs are located;
3. the numbers of educational activities organised by the CGSs in service in 2018 and the numbers of visitors; and
4. the latest progress and details of the CGSs in the 18 districts, including the expenditures and manpower resources involved.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 44)

Reply:

1. and 3.

The Environmental Protection Department (EPD) is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. As at the end of 2018, 7 CGSs have been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. Details of the 2018 quarterly operational statistics of the CGSs are set out below:

	1 st Quarter of 2018					2 nd Quarter of 2018				
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po
Quantity of various types of recyclables handled (kg)										
Electrical appliances and computer products	24 881	21 539	17 433	15 082	6 382	13 169	17 312	7 018	10 521	7 502
Glass bottles	87 401	75 191	64 403	51 008	38 726	88 463	76 959	65 979	55 215	65 586
Compact fluorescent lamps/ fluorescent tubes	1 178	1 413	696	787	115	1 050	1 103	444	722	716
Rechargeable batteries	116	507	104	298	243	155	228	80	200	161
Used books	637	123	11	1 068	516	1 343	631	281	1 441	884
Clothing	481	473	401	1 694	1 022	959	1 215	447	1 820	1 941
Waste paper	509	1 039	5 387	6 640	685	412	1 788	6 497	6 183	5 131
Waste plastics	81	1 485	1 358	1 171	1 447	361	2 432	3 831	1 757	5 799
Waste metals	9	269	306	863	121	93	621	594	547	492
Number of educational activities and visitors										
Number of activities	72	75	53	36	96	66	44	67	57	68
Number of visitors	7 295	40 360	6 618	5 383	7 135	7 383	46 211	6 955	5 835	7 821

Note: As the Tuen Mun CGS and the Kwai Tsing CGS commenced operation in late September and November 2018 respectively, only the operational statistics for the 4th quarter of 2018 are available.

	3 rd Quarter of 2018				
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po
Quantity of various types of recyclables handled (kg)					
Electrical appliances and computer products	19 270	17 866	9 687	11 902	17 436
Glass bottles	107 591	81 973	66 774	58 993	71 929
Compact fluorescent lamps/ fluorescent tubes	1 162	620	643	808	403
Rechargeable batteries	238	625	108	121	56
Used books	393	7 748	262	2 047	320
Clothing	486	1 507	264	634	845
Waste paper	82	2 906	4 301	11 175	7 762
Waste plastics	116	2 982	2 596	2 924	7 903
Waste metals	34	710	348	862	2 136
Number of educational activities and visitors					
Number of activities	31	48	48	52	76
Number of visitors	6 164	52 817	7 936	5 430	7 890

	4 th Quarter of 2018						
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Tuen Mun	Kwai Tsing
Quantity of various types of recyclables handled (kg)							
Electrical appliances and computer products	12 371	19 920	13 062	17 327	15 874	7 264	1 003
Glass bottles	93 387	80 975	65 572	63 632	101 277	61 091	33 539
Compact fluorescent lamps/ fluorescent tubes	804	887	601	749	406	352	550
Rechargeable batteries	409	469	108	475	203	115	17
Used books	650	1 102	856	987	442	0	210
Clothing	580	1 107	485	971	1 257	0	778
Waste paper	297	4 000	3 367	8 693	11 691	431	1 420
Waste plastics	235	3 282	2 970	3 413	10 776	470	1 661
Waste metals	354	633	403	2 321	1 118	46	48
Number of educational activities and visitors							
Number of activities	37	45	45	47	68	41	30
Number of visitors	7 330	50 132	9 047	5278	8 940	15 924	2 308

The CGSs ensured that all recyclables collected were sent to suitable recyclers for proper handling and recycling instead of being disposed of at landfills. The arrangements for the various types of recyclables in the above table are as follows:

Electrical appliances and computer products	The electrical appliances and computer products were mainly sent to ALBA Integrated Waste Solutions (Hong Kong) Ltd. for refurbishment or dismantling. The company is the operator of the Waste Electrical and Electronic Equipment Treatment and
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	Recycling Facility (WEEE-PARK); some of them were sent to Vannex International Limited, which is the contractor of the Computer and Communication Products Recycling Programme; and some of them were sent to Li Tong (H.K.) Telecom Company Limited, which is a contractor of the EPD, for dismantling and recycling.
Glass bottles	All glass bottles were sent to glass management contractors engaged by the EPD for processing. The glass recyclables after processing were used for production of cement and eco-pavers, or used as fill materials in various public works projects.
Compact fluorescent lamps/ fluorescent tubes	All compact fluorescent lamps/ fluorescent tubes were sent to the Ecospace Limited for proper handling. The company is the contractor of the Chemical Waste Treatment Centre.
Rechargeable batteries	All rechargeable batteries were sent to the Vannex International Limited for export for further processing. The company is the contractor of the Rechargeable Battery Recycling Programme.
Used books and clothing	Reuse of used books and clothing was mainly arranged through donation, exchange programmes and second-hand shops. Some of them would be kept in stock for use in future functions.
Waste paper, waste plastics and waste metals	All waste paper, plastics and metals were handled by private recyclers through tendering.

2. The CGSs have set up collection points at residential estates and other suitable sites (such as schools and social service organisations). Quarterly operational statistics of individual CGSs are published every 3 months. As at the 4th quarter of 2018, the numbers of collection points of the 7 CGSs are tabulated below:

Number of residential collection points							
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Tuen Mun	Kwai Tsing
Electrical appliances and computer products	112	81	60	75	32	44	49
Glass bottles	128	132	78	114	66	107	62
Compact fluorescent lamps/ fluorescent tubes	93	100	34	82	40	59	55
Rechargeable batteries	124	99	67	93	36	72	60

Number of other collection points							
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Tuen Mun	Kwai Tsing

Electrical appliances and computer products	44	57	23	30	11	5	1
Glass bottles	33	38	6	23	11	5	0
Compact fluorescent lamps/ fluorescent tubes	13	36	14	16	7	1	2
Rechargeable batteries	12	23	17	19	4	1	2

4. The total cost for capital works of all CGSs is estimated to be about \$400 million. The operating expenditure of individual CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions. At present, there are a total of 17 posts tasked to implement this initiative and monitor the operation of the CGSs, including 16 permanent posts and 1 time-limited post (until 2020). The latest development of individual CGSs is tabulated below:

CGS	Site	Latest Development and Schedule
Sha Tin CGS	10 On Ping Street, Shek Mun	The CGS commenced operation in May 2015. In 2018, the CGS collected about 461 tonnes of recyclables, with an operating expenditure of about \$4.76 million.
Eastern CGS	30 Oi Shun Road, Shau Kei Wan	The CGS commenced operation in August 2015. In 2018, the CGS collected about 437 tonnes of recyclables, with an operating expenditure of about \$3.91 million.
Kwun Tong CGS	27 Sheung Yee Road, Kowloon Bay	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$4.27 million.
Yuen Long CGS	65 Tin Wah Road, Tin Shui Wai	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$3.46 million.

CGS	Site	Latest Development and Schedule
Sham Shui Po CGS	339 Tung Chau Street	The CGS commenced operation in October 2017. In 2018, the CGS collected about 394 tonnes of recyclables, with an operating expenditure of about \$4.70 million.
Tuen Mun CGS	9 Tuen Yee Street	The CGS commenced operation in September 2018. As at the end of 2018, the CGS collected about 70 tonnes of recyclables, with an operating expenditure of about \$2.10 million.
Kwai Tsing CGS	12 Tam Kon Shan Road, Tsing Yi	The CGS commenced operation in November 2018. As at the end of 2018, the CGS collected about 40 tonnes of recyclables, with an operating expenditure of about \$770,000.
Tai Po CGS	25 Dai Wah Street	The tendering for the operation contract is underway. The CGSs are expected to commence operation within 2019.
Islands CGS	1 Chung Mun Road, Tung Chung, Lantau	
Sai Kung CGS	Po Lam Lane, near Po Hong Road and Po Lam Road North, Tseung Kwan O	Design and construction works are in progress.
Wan Chai CGS	Wan Shing Street, near Hung Hing Road	
Tsuen Wan CGS	Hoi Shing Road, near Hoi Kok Street	The site has been confirmed and planning of construction works is in progress.
Wong Tai Sin CGS, Kowloon City CGS, Southern CGS, Yau Tsim Mong CGS, Central and Western CGS and North CGS	Site to be confirmed	We have been following up the views from District Councils. Taking into account the actual operating experience in other CGSs, we are continuing with site search and other associated preparation work.

- End -

CONTROLLING OFFICER'S REPLY

ENB085

(Question Serial No. 2768)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding illegal disposal of waste, please advise on:

1. the expenditures involved and manpower arrangement for combating illegal disposal of waste in the past 3 years, as well as the relevant details of work, estimated expenditure and manpower arrangement in the coming year;
2. the numbers of complaints received by the Administration about illegal disposal of waste, as well as the numbers of persons arrested, the numbers of prosecutions, conviction rates, the maximum and minimum penalties and total amounts of fines in the past 3 years; and
3. whether the expenditure involved and manpower arrangement for combating illegal disposal of waste will be increased accordingly if waste charging is implemented smoothly. If yes, what are the details; if no, what are the reasons?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 45)

Reply:

1. In order to step up efforts in combating illegal disposal of waste, the Environmental Protection Department (EPD) has progressively installed surveillance camera systems at illegal waste disposal black spots on government land and public places since 2016 to facilitate enforcement and enhance the deterrence against illegal disposal of waste. At present, the EPD has installed surveillance camera systems at 80 illegal waste disposal black spots (including 60 illegal construction waste disposal black spots), involving the total cost of about \$6 million. In 2019-20, we have earmarked about \$5 million to expand the coverage of the surveillance camera systems. Besides, the EPD will deploy manpower resources flexibly having regard to risk assessments, work priorities and actual conditions in the districts to facilitate planning of inspections and pooling of efforts in enforcement in a more effective manner. The EPD will also increase the number of inspections within and outside office hours as well as on public holidays according to the specific needs, and will continue to strengthen collaboration with other relevant departments to jointly carry out close monitoring and enforcement work. As the relevant enforcement work is part of the routine duties of the EPD, we do not have separate figures for the manpower and expenditure involved.

2. The numbers of complaints about illegal disposal of waste handled by the EPD, as well as the numbers of prosecutions, conviction rates, numbers of offenders, the maximum and minimum fines and total amounts of fines in the past 3 years are as follows:

	Year		
	2016	2017	2018
Number of complaints received*	2 702	2 962	2 819
Number of prosecutions			
(1) Number of summonses issued	397	198	184
(2) Conviction rate by summonses	99%	98%	95%
(3) Number of Fixed Penalty Notice (FPN) issued **	195	177	246
(4) Number of offenders	592	375	430
Minimum fines (\$)	500	1,200	1,000
Maximum fines (\$)	50,000	25,000	24,000
Total amount of fines (\$)	3,309,400	1,282,900	1,222,400

Notes:

- * Including multiple complaints which may arise from a single case.
- ** The fine level of the FPN is \$1,500.

3. As regards the use of pre-paid designated garbage bags/labels, which would be required under municipal solid waste charging, having regard to some 22 000 waste reception points, over 45 000 buildings and considerable waste reception points across the territory, we plan to adopt a risk-based approach in carrying out our enforcement actions by targeting at the list of black spots based on complaints and intelligence. The EPD and the Food and Environmental Hygiene Department (FEHD) may, according to preliminary estimation, require a few hundred enforcement staff.

We will further review and ascertain the actual manpower requirements having regard to the public response to our public education and publicity work; the effectiveness of various waste reduction and recycling measures (including the proposed establishment of new outreaching teams to provide on-site assistance and the pilot schemes for the provision of free collection services in respect of waste plastics from non-commercial and non-industrial sources as well as food waste mainly from commercial and industrial sources); and the effectiveness of the FEHD's stepped-up efforts to deal with littering and fly-tipping problems (such as the effectiveness of applying innovative technologies to facilitate compliance).

- End -

CONTROLLING OFFICER'S REPLY

ENB086

(Question Serial No. 2769)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the Department's work on reduction of food waste, the relevant questions are as follows:

1. Regarding the Food Wise Hong Kong Campaign, please advise on the following:
 - (a) the latest number of participating merchants, and the details and expenditure of each activity held last year; and
 - (b) the details of work and estimated expenditure in the coming year.

2. The Department mentioned in Reply Serial No. ENB097 in last year's Budget that it would implement a pilot project to source separate food waste from 40 public markets and cooked food venues managed by the Food and Environmental Hygiene Department, as well as 9 shopping centres managed by the Hong Kong Housing Authority, for delivery to the Organic Resources Recovery Centre (ORRC) Phase 1. Please advise on the following:

- (a) Has the Administration set a target for the project by stipulating the quantity of food waste to be collected by the contractor each month? If yes, what is the target? If not, what are the reasons?
- (b) What are the quantity of food waste collected and the amount of biogas and compost generated each month since the launch of the pilot project?
- (c) What are the work details of the pilot project in the coming year?

Please advise on the following:

3. What are the total quantity of food waste handled, the total quantity of food waste collected from commercial and industrial institutions, and the amount of biogas and compost generated each month and their outlets since the commencement of operation of the ORRC Phase 1?

4. What are the work details of Phases 1, 2 and 3 of the ORRC, including the expenditure and manpower resources involved in the last year and the coming year?

5. What were the details of the Administration's work/relevant projects in promoting/funding the collection of domestic food waste in the past 2 years, including the expenditure involved, manpower arrangements, locations of the projects, the quantity of food waste collected each year, and what are the work details for the coming year?

6. Has the Administration assessed whether the quantity of food waste in Hong Kong has reduced since the implementation of the campaign and other food waste reduction initiatives? If yes, what are the details? If not, what are the reasons?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 46)

Reply:

1. The Food Wise Hong Kong Campaign (the Campaign) has promoted a food wise and waste less culture and encouraged behavioural change to reduce food waste in the community through various schemes and activities since its launching in 2013. The schemes and activities held in 2018-19 include:

- The Food Wise Charter – As at February 2019, about 800 organisations have signed the Food Wise Charter and are committed to reducing food waste. The signatories include public organisations and public utilities, commercial and industrial (C&I) sectors, food and beverage sectors, hotel sector, property development and management sectors, higher education institutions, secondary schools, primary schools, kindergartens, etc.
- “Food Wise” Talk – As at February 2019, 104 “Food Wise” talks were held by the Government with a total of over 10 000 participants. The talks helped promote the “Food Wise” messages and mainly introduced the food waste issues, treatment of food waste, food waste separation and recycling, as well as the Campaign, etc.
- “Food Wise” Roving Exhibition – As at February 2019, a total of 22 roving exhibitions were held by the Government at various districts in Hong Kong to bring the message of food wise and waste less to the community and encourage the public to reduce food waste at source. The roving exhibitions featured display panels with food waste reduction tips, including food trimmings for the second dish recipes, tactics of food storage and purchase management, etc., and let the public share their “Food Wise” wishes and opinions on the exhibition board. The exhibitions attracted a total of over 30 000 visitors.
- The “Big Waster” Facebook and Instagram pages – The “Big Waster” symbolising food wastage in the Campaign has strengthened interaction with supporters, particularly young people, through Facebook and Instagram pages in which information on food waste reduction is provided. Up to February 2019, the “Big Waster” Facebook has received more than 61 000 “likes” and there are over 7 000 “followers” on Instagram.
- The Food Wise Eateries Scheme – To continue to encourage the food and beverage sectors to offer portioned meals for customers to choose from, so as to avoid the

generation of food waste. As at February 2019, about 320 and 480 eateries have been awarded with gold class and silver class status respectively.

The total estimated expenditure of the Campaign was about \$6.3 million in 2018-19.

The Government will continue to promote the food wise and waste less culture by enhancing the above schemes and activities. The total estimated expenditure of the Campaign is about \$6.6 million in 2019-20.

2. To encourage the C&I sectors to recycle food waste properly and achieve the target of turning waste into energy, the Government launched a pilot scheme on 1 July 2018 to source separate and collect food waste generated from 40 public markets and cooked food venues managed by the Food and Environmental Hygiene Department (FEHD), as well as 9 shopping centres and wet markets managed by the Hong Kong Housing Authority (HA), for delivery to the Organic Resources Recovery Centre Phase 1 (O • PARK1) for recycling.
 - (a) The pilot scheme aims to identify and ascertain the major operation and logistic arrangements for the collection and delivery of food waste to the O • PARK1. Participation in the scheme is on a voluntary basis, and the market stall operators may choose to opt out. Therefore, there is not a designated quantity of food waste to be collected each month. To further promote recycling of food waste and enhance the quality of food waste collected, the Environmental Protection Department (EPD) has arranged a contractor to provide suitable guidance and training for operators of public market stalls, cooked food venues and shopping centres, including advising them on how to practise source separation, collection and delivery of food waste.
 - (b) Since the launch of the pilot scheme, the quantity of food waste collected from the 49 shopping centres and public markets of the FEHD and the HA was about 200-240 tonnes per month, bringing a cumulative total of about 1 600 tonnes, with a total of about 160 000 cubic metres of biogas and 30 tonnes of compost generated.
 - (c) We are discussing with the relevant government departments on extending the pilot scheme for free food waste collection service to other public markets, cooked food venues and shopping centres under the FEHD and the HA and other facilities (e.g. more wholesale markets under the Agriculture, Fisheries and Conservation Department and hospitals under the Hospital Authority, etc.). Moreover, the Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run.

We are actively preparing for free food waste collection service for all primary and secondary schools, and tertiary institutions in Hong Kong under the pilot scheme. In February this year, we also invited school lunch suppliers to participate in the above pilot scheme by collecting the food waste generated from their supply of lunch for primary and secondary schools and food left uneaten by students, and delivering such food waste to the O • PARK1. About 10 school lunch suppliers have indicated their interest in participating in the above pilot scheme at present. The contractor of the

O • PARK1 engaged by the EPD is getting in contact with the interested school lunch suppliers to discuss the food waste collection arrangements. It is expected that the food waste collection service can be launched in the second quarter of this year. In addition, the EPD is getting in touch with the canteens of the tertiary institutions to discuss various feasible options to provide free food waste collection service for them under the pilot scheme. Most tertiary institutions have indicated their interest in participating in the above pilot scheme.

3. With the adoption of biodegradation technologies in the O • PARK1, food waste is not only treated properly, but is also turned into energy through biogas generation, and the residue produced after anaerobic digestion will also be converted into compost. During the initial operation of the O • PARK1, it is necessary to gradually increase the amount of food waste treated to ensure that there is sufficient time for the micro-organisms used to degrade food waste in the anaerobic tanks to grow steadily. At present, about 3 000 tonnes of C&I food waste are delivered to the O • PARK1 per month for recycling. Since the commissioning of the O • PARK1, a cumulative total of about 20 000 tonnes of food waste have been collected from about 190 C&I establishments, with a total of about 2 million cubic metres of biogas, 3.7 million kWh of electricity and 400 tonnes of compost generated. Electricity generated from the O • PARK1 is not only used to sustain its operation. The surplus electricity generated is also exported to the power grids. The compost produced is mainly used in large-scale infrastructure projects for landscaping applications.
4. The O • PARK1 was completed and commissioned in July 2018. The relevant supervision work is absorbed by existing establishment of the EPD. The expenditures involved in the financial year 2018-19 and 2019-20 are tabulated below:

Year	Capital cost (\$m)	Operating expenditure (\$m)
2018-19	196	13
2019-20	270	54

The EPD is seeking funding approval from the Legislative Council for detailed design and construction works of the Organic Resources Recovery Centre Phase 2 (ORRC2). If the funding is approved and the contract is awarded in the first half of 2019, the ORRC2 is expected to be commissioned in 2022 the earliest, with a daily food waste treatment capacity of 300 tonnes. The estimated expenditure involved for the project is about \$362 million in 2019-20, and the relevant work will be absorbed by the existing establishment.

The EPD is conducting an engineering feasibility study and an Environmental Impact Assessment for the ORRC Phase 3 (ORRC3). The ORRC3 is anticipated for commissioning in 2026 with a daily food waste treatment capacity of 300 tonnes. The expenditures involved for the preparatory work for the ORRC3 in 2018-19 and 2019-20 is \$2.6 million and \$11.8 million respectively, and the relevant work is absorbed by the existing establishment of the EPD.

5. Regarding promoting domestic food waste recycling, since 2011, the EPD has earmarked \$60 million through the Environment and Conservation Fund (ECF) to

implement the “Food Waste Recycling Projects in Housing Estates” to support private housing estates to install food waste composters and organise educational and promotion activities to encourage public participation in food waste recycling, with a view to enhancing their awareness of food waste reduction and recycling. Up to December 2018, a total of 35 housing estates were supported with a total amount of approved funding of about \$38 million. The housing estates supported with the funding are distributed throughout Hong Kong, Kowloon and the New Territories. The total amount of funding approved for these projects and the quantities of food waste recovered over the past 2 years are set out below:

Year	Funding approved (\$m)	Quantity of food waste recovered^(Note 3) (tonnes)
2017-18	1.78	485
2018-19	3.27 ^(Note 1)	342 ^(Note 2)

Note 1: The amount of funding approved as at the end of December 2018.

Note 2: The quantity of food waste recovered as at the end of January 2019.

Note 3: The figures do not necessarily represent the amount of food waste collected in the approved projects for that year. Since the housing estates had to make preparations, such as recruiting staff, arranging tenders for the rental of composters, after approval of the projects, food waste recovery activities might not be commenced in the same year. Moreover, the recipient housing estates had to carry on food waste recovery activities for 24 months, and the projects approved in earlier years would continue to recover food waste after commissioning. Hence, the relevant figures include those projects approved in earlier years and were still in operation.

We will also allocate a portion of the treatment capacities of the O • PARK1 and the “food waste/sewage sludge anaerobic co-digestion” trial scheme at the Tai Po Sewage Treatment Works to provide free collection and recycling services for a portion of the domestic food waste. Priority will be given to food waste from housing estates with experience in food waste separation and recycling, such as the 35 private housing estates that have participated in the “Food Waste Recycling Projects in Housing Estates” under the ECF. We will take the initiative to invite these housing estates to join the aforesaid pilot scheme on free food waste collection service.

In addition, the Government has commenced a study on territory-wide separation and collection of food waste from domestic and C&I sources. The consultant is currently collating and analysing information on local and overseas practices in the collection and delivery of food waste. The consultant will examine effective and feasible options for the collection and delivery of food waste, and based on Hong Kong’s actual circumstances and environment, formulate proposals on food waste collection and the necessary ancillary facilities in preparation for large-scale collection of food waste from domestic and C&I sources, and its delivery to relevant treatment facilities in future. The study is expected to be completed within 2019.

6. According to the reports on “Monitoring of Solid Waste in Hong Kong”, the average daily quantity of food waste disposed of at landfills was 3 662 tonnes in 2017, which was 1.7% higher than that of 2016. It was mainly driven by the increase of C&I food waste. In recent years, the per capita disposal rate of C&I food waste has shown an upward trend, increasing from 0.14 kg per day in 2015 to 0.18 kg per day in 2017, which may be partly due to the increase in the number of eateries and food factories. The per capita disposal rate of domestic food waste has remained at 0.32 kg per day. On this basis, we will continue with the implementation of the Food Wise Hong Kong

Campaign and promotion of a food wise culture in the community, and through the legislative proposal of municipal solid waste charging, to encourage behavioural change of the public to reduce food waste.

- End -

CONTROLLING OFFICER'S REPLY

ENB087

(Question Serial No. 2770)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the enforcement of the Waste Disposal Ordinance, please advise on the Administration's work in the past 5 years as follows:

1. How many cases of suspected illegal storage, treatment, reprocessing or recycling of e-waste were investigated each year? In which districts of Hong Kong did these cases take place? What follow-up actions did the Administration take in respect of these cases? What were the results? How many cases were successfully prosecuted?
2. How many surprise inspections were conducted against the operations of storage, treatment, reprocessing or recycling of e-waste each year? In which districts of Hong Kong did these operations take place? How many cases involved illegal activities? What were the elements of these illegal activities?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 47)

Reply:

1. The disposal licencing control of e-waste (including air conditioners, refrigerators, washing machines, television sets, computers, printers, scanners and monitors) under the Waste Disposal Ordinance (WDO) has become effective on 31 December 2018. Besides, the Environmental Protection Department (EPD) has been regulating illegal disposal of waste televisions and computer monitors which are classified as chemical waste at open recycling sites in the New Territories in accordance with the chemical waste disposal legislation. In the past 5 years, the numbers of prosecutions involving illegal storage, treatment, reprocessing or recycling of e-waste instituted by the EPD under the WDO and the Waste Disposal (Chemical Waste) (General) Regulation are as follows:

Year	2014	2015	2016	2017	2018	Cumulative total
District Number of prosecutions [Note] (Number of successful prosecutions)						
Yuen Long	0 (0)	0 (0)	15 (15)	43 (39)	26 (26)	84 (80)
North District	0 (0)	0 (0)	11 (11)	15 (15)	7 (4)	33 (30)
Total number	0 (0)	0 (0)	26 (26)	58 (54)	33 (30)	117 (110)

Note: Since 2015, there has been an increasing number of cases of illegal handling of certain e-waste which is classified as chemical waste at open recycling sites in the New Territories. In response, the EPD has stepped up enforcement actions at recycling sites since mid-2015 to combat illegal activities involving storage, treatment, reprocessing or recycling of such waste.

2. The numbers of inspections conducted by the EPD at open recycling sites in Yuen Long and the North District in the past 5 years are as follows. As mentioned in the reply to question 1 above, the total number of successful prosecutions is 110.

Year	2014	2015	2016	2017	2018
Yuen Long	81	117	228	292	831
North District	22	15	101	222	173
Total number of inspections	103	132	329	514	1 004

Since the licensing control on e-waste disposal took effect and up till early March in 2019, the EPD conducted a total of over 130 inspections at the open recycling sites which did not have disposal licences, and found a total of 5 recycling sites which were suspected of illegal storage of e-waste or contravening the Waste Disposal (Chemical Waste) (General) Regulation. These sites are mainly distributed in Yuen Long and the North District in the New Territories. The EPD is conducting follow-up investigations and collecting evidence in respect of the above cases.

In addition, the EPD has issued 10 e-waste disposal licences to the trade, and the facilities concerned are located in Kwai Chung (1 facility), Sheung Shui (2 facilities), Yuen Long (3 facilities) and Tuen Mun (4 facilities) respectively. The EPD conducted a total of 16 surprise inspections and no illegal activities were detected.

- End -

CONTROLLING OFFICER'S REPLY

ENB088

(Question Serial No. 2771)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

1. It is mentioned by the Administration that it will continue to expand outreaching teams to provide on-site support and assistance for residents and property management companies. Please advise on the districts under the purview of the outreaching teams and the numbers of residents and property management companies contacted by the teams last year, the initial effectiveness, and the work arrangements in the coming year, including whether the programme will be extended to other districts, as well as the estimated expenditure and manpower resources to be involved.

2. Please advise on the details of the provision of free collection service for waste plastics from non-commercial and non-industrial sources, including the scope of service, the number of collection points, the outlets of the plastics collected, the expenditure to be involved and manpower arrangements.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 48)

Reply:

1. To strengthen on-site support to recycling, the Environmental Protection Department (EPD) is establishing outreaching teams to collaborate closely with community partners to educate the public on the importance of waste reduction at source and assist them to practise proper waste separation at source and clean recycling, and to identify proper outlets for recyclables. At the same time, the outreaching teams will also promote the EPD's various waste reduction and recycling initiatives such as the producer responsibility scheme on waste electrical and electronic equipment (WPRS), the producer responsibility scheme on glass beverage containers (GPRS) and the proposed municipal solid waste (MSW) charging, so as to raise public awareness and participation, and enhance stakeholders' understanding on the implementation details. The outreaching teams will strive to establish and maintain a direct communication network with different stakeholders such as property management companies (PMCs), cleansing workers, residents' organisations, District Council (DC) members and community representatives, etc. Starting from December 2018, the outreaching teams have kick-started pilot outreaching services in 3 districts (i.e. Eastern,

Kwun Tong and Sha Tin districts). Actual experiences gained will serve as reference for gradual expansion of outreaching services to all districts in Hong Kong in future.

The outreaching teams have been visiting public and private housing estates and residential buildings, including single-block buildings and “three nil” buildings in the pilot districts; establishing and maintaining a direct and effective network with different stakeholders such as the PMCs, cleansing workers, residents’ organisations, DC members and community representatives, etc. to understand the situation of the housing estates/buildings and provide recommendations on strengthening and enhancing waste reduction and recycling work; and assisting in improving and establishing an efficient system for collection of recyclables and identifying proper outlets for recyclables.

The staffing of the EPD for implementing the outreaching services will be gradually increased from 32 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) at present (i.e. the financial year 2018-19) to 74 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) and 142 non-civil service contract staff in the financial year 2019-20. The estimated expenditure on salaries in 2019-20 is about \$110 million.

2. The EPD plans to roll out a two-year Pilot Scheme on Collection and Recycling Services of Waste Plastics in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin) to provide free collection service for waste plastics from non-commercial and non-industrial (non-C&I) sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts, with a view to gaining practical experience before expanding the services to the whole territory. The EPD will hire contractors through service contracts to collect waste plastics direct from the above-mentioned premises for further treatment in recycling process, then produce recycled raw materials or products to be exported or supplied to the local market so as to ensure that the waste plastics collected are properly handled. The EPD is tendering the waste plastics collection service contract of the Eastern District, with a view to rolling out the services this year. We will also invite tenders for waste plastics collection services in Kwun Tong and Sha Tin districts one after another later. In 2019-20, the 3 pilot schemes will be undertaken by 18 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) and the estimated total expenditure is about \$72 million. As the pilot scheme on collection of waste plastics is still at its preparatory stage, the number of collection points cannot be provided for the time being.

- End -

CONTROLLING OFFICER'S REPLY

ENB089

(Question Serial No. 3236)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding yard waste, the relevant questions are as follows:

1. Please provide the respective weights of yard waste (a) collected, (b) recycled and (c) disposed of at landfills by various government departments in the past 5 years.
2. Regarding the programmes launched by the Government to recycle Christmas trees and peach blossom trees (PBTs) in recent years, how effective were the relevant programmes? What was the expenditure involved for each programme? Please set out in detail the quantities of Christmas trees and PBTs collected every year, the respective quantities of those converted into mulches for gardening and compost, and sent to schools or non-profit-making organisations. Please set out separately in detail the names of the organisations that received mulches for gardening and/ or compost, as well as the quantities received. Please also advise on the outlets of the remaining Christmas trees and PBTs not converted into useful substances, especially the quantities of which sent to landfills.
3. At present, are various government departments still following the "Guidelines on Yard Waste Reduction and Treatment" (the Guidelines) only in handling their respective yard waste? If yes, why is there still a considerable amount of yard waste sent to landfills instead of being recycled every year?
4. What are the Government's solutions to tackle the yard waste generated by housing estates? Please provide details of the relevant work and the expenditure involved.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 49)

Reply:

1. The weights of yard waste (a) collected, (b) recycled and (c) disposed of at landfills by various government departments in the past 5 years are set out in Annex 1.
2. In order to promote recycling of yard waste left over after Christmas and the Lunar New Year, since 2016, the Environmental Protection Department (EPD) has followed the prevailing government procurement procedures to engage qualified contractors with relevant experience and the capability to carry out proper collection and treatment services

for natural Christmas trees (NCTs) and peach blossom trees (PBTs) and subsequent processing into materials suitable for recycling or reuse. The NCTs and PBTs recovered between Christmas in 2016 and the Lunar New Year in 2018 were shredded, recycled and converted into compost, bulking agent for composting, wood pellets and other useful recycled products with a total weight of 74 tonnes by the contractors for use by 21 education, social and charity organisations, as well as landscaping organisations. For the NCTs and PBTs recovered during Christmas in 2018 and the Lunar New Year in 2019, the contractors were mainly responsible for collecting and delivering them to designated places for the EPD to arrange shredding using the newly installed wood shredder, and the shredded wood would be recycled and reused, such as used in composting and as solid fuel. In the recycling process, the contractors would dispose of materials unsuitable for recycling (such as ropes for tying and damaged decorations, etc.). Such materials accounted for less than 10% of the weight of the Christmas trees and PBTs. Since we have not obtained the consent of the beneficiary organisations concerned, the EPD is not in a position to reveal their names.

The quantities of NCTs and PBTs recovered and the expenditures involved are tabulated below.

Recycling programme	Weight (tonnes)	Expenditure (\$m)	Weight (tonnes)	Expenditure (\$m)	Weight (tonnes)	Expenditure (\$m)
NCTs	Year 2016	1.22	Year 2017	0.82	Year 2018	0.56
	22.7		18.0		33.2	
PBTs	Year 2017	1.4*	Year 2018	1.08**	Year 2019	1.08**
	34.7		31.9		43.6	

* The expenditure included recovery of bamboo sticks and wooden pallets at Lunar New Year fairs.

** The expenditure included recovery of wilted flowers at Lunar New Year fairs.

3. In February 2014, the Environment Bureau (ENB) promulgated *A Food Waste and Yard Waste Plan for Hong Kong 2014-2022* (the Plan), which sets out the Government's strategies on dealing with organic waste. The strategies cover collecting data, promoting waste reduction at source, encouraging waste separation and collection as well as exploring the most suitable means to treat the unavoidable waste. An interdepartmental working group led by the EPD also convened meetings to co-ordinate the work of various Government departments in implementing the Plan, including enhancing data collection and promoting best practices.

Various government bureaux and departments have rendered support to the Plan. For example, the Greening, Landscape and Tree Management Section of the Development Bureau (DEVB) published the *Guidelines on Yard Waste Reduction and Treatment* in July 2014 for general reference by government departments regarding measures on yard waste reduction at various stages from landscape design to maintenance. The Agriculture, Fisheries and Conservation Department (AFCD) treats yard waste on site as far as possible, including stockpiling on site to provide niches for wildlife and release nutrients to the nature as the waste decomposes. Suitable tree logs are reused for making furniture or decorative items for the recreational facilities in country parks, such as animated features, waymarks and benches, etc. The Leisure and Cultural Services Department (LCSD) is also replacing

the planting of annuals by shrubs or perennials with colourful foliage, with a view to reducing yard waste at source. Since 2014, the LCSD has started to produce compost on-site from yard waste using garden composters at suitable venues. In the longer term, the LCSD will specify in the Schedule of Accommodation of suitable new venues the requirement for installation of on-site composting facilities. Part of the yard waste from the LCSD is delivered to the Animal Waste Composting Plant in Ngau Tam Mei for composting. The Civil Engineering and Development Department's greening works relating to infrastructural development, geotechnical works and greening master plan will focus on planting of perennials suitable for local environment, with the right vegetation in the right place and choose native perennials to encourage local ecological growth and reduce plant replacement in order to reduce yard waste. The Government will continue to implement the Plan in full to reduce yard waste on multiple fronts, including reducing the use of decorative plants during festive events, replanting, promoting better landscape design, etc.

On the other hand, the EPD will continue to encourage government departments to adhere to the principle of reduce, reuse and recycle in handling yard waste, and adopt various measures including installation of wood shredders and garden composters, to treat, recycle and reuse yard waste on site as far as practicable. The EPD has been exploring different proposals to utilise yard waste resources effectively as far as practicable, with various feasible treatment trials in progress. For example, the EPD has procured an industrial grade wood shredder, and trials have been started to turn the yard waste collected into wooden chips for various uses, such as solid fuel, bulking agent for composting, mulch for planting purposes and soil cover at landfills, etc. The EPD is also procuring two additional wood shredders for shredding yard waste for use as soil cover at two operating landfills. The EPD will continue to work with the DEVB and relevant government departments in exploring the construction of yard waste shredding and recycling facilities, and consider the introduction of various proposals such as the production of biochar. Subject to the outcome of the above trials, the EPD will consider incorporating these proposals in our long-term strategies on yard waste management. Moreover, the shredded wood or wood log from the yard waste collected by government departments is available to interested parties or members of the public free of charge for suitable recycling or upcycling.

4. The yard waste recycling programmes currently implemented by the Government in the community mainly target at Christmas trees and PBTs, which will be properly recycled and converted into compost or used for resource recycling. The details and expenditure involved are set out in part 2 of the reply above.

The weights of yard waste (a) collected, (b) recycled and (c) disposed of at landfills by various government departments from 2014 to 2018

(a) Weight of yard waste collected (tonnes)					
Department/Year	2014	2015	2016	2017	2018 (Note 1)
Agriculture, Fisheries and Conservation Department	80	80	72	25	4
Architectural Services Department	#	#	1 757	3 043	4 052
Civil Engineering and Development Department	#	#	2 100	3 250	6 420
Drainage Services Department	460	480	450	512	1 173
Highways Department	2 370	4 770	2 810	3 340	4 820
Leisure and Cultural Services Department (Note 2)	3 600	3 600	3 600	3 600	16 800
Water Supplies Department	10	3	4	1 174	2 233
Lands Department	#	#	#	#	3 584
Housing Department (Note 3)	#	#	#	#	715
Total	6 520	8 933	10 793	14 944	39 801

(b) Weight of yard waste recycled (tonnes)					
Department/Year	2014	2015	2016	2017	2018 (Note 1)
Agriculture, Fisheries and Conservation Department	80	80	32	25	4
Architectural Services Department	#	#	68	60	140
Civil Engineering and Development Department	#	#	0	50	210
Drainage Services Department	9	9	10	24	16
Highways Department	0	60	50	70	190
Leisure and Cultural Services Department (Note 2)	161	147	160	160	163
Water Supplies Department	6	2	2	49	33
Lands Department	#	#	#	#	80
Housing Department (Note 3)	#	#	#	26	117
Total	256	298	322	464	953

(c) Weight of yard waste disposed of at landfills (tonnes)					
Department/Year	2014	2015	2016	2017	2018 (Note 1)
Agriculture, Fisheries and Conservation Department	0	0	40	0	0
Architectural Services Department	#	#	1 689	2 983	3 912
Civil Engineering and Development Department	#	#	2 100	3 200	6 210
Drainage Services Department	451	471	440	488	1 157
Highways Department	2 370	4 710	2 760	3 270	4 630
Leisure and Cultural Services Department (Note 2)	3 439	3 453	3 440	3 440	16 637
Water Supplies Department	4	1	2	1 125	2 200
Lands Department	#	#	#	#	3 504
Housing Department (Note 3)	#	#	#	#	598
Total	6 264	8 635	10 471	14 506	38 848

Relevant data has not been recorded

Note 1: The significant increase in yard waste collected in 2018 is mainly attributed to the large amount of tree waste generated during the attack of super typhoon Mangkhut in Hong Kong. However, the above statistics do not include about 20 480 tonnes of tree waste collected by various departments and private organisations for urgent clearing of roads after the attack of super typhoon Mangkhut, and delivered to the temporary collection area in the Kai Tak Development Area before being delivered to the West New Territories Landfill; and about 3 000 tonnes of tree waste delivered to a government land near T • PARK in Tuen Mun for recycling and reuse.

Note 2: Most of the yard waste collected by LCSD in 2018 was tree waste generated following the passage of super typhoon Mangkhut.

Note 3: Information from the Housing Department's pilot projects on reuse and recycling of yard waste.

- End -

CONTROLLING OFFICER'S REPLY

ENB090

(Question Serial No. 3291)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding glass recycling, the relevant questions are as follows:

1. Please advise on the details of Administration's work in 2018 and the coming year regarding glass recycling and the producer responsibility scheme on glass beverage containers, including the expenditure and manpower arrangements involved.
2. What are the respective numbers of collection points in the 18 districts at present?
3. Please advise on the quantity of glass cullet submitted by the contractors engaged by different districts, the quantity of glass recovered and the quantity of glass cullet required to be submitted by the contracts each month in the past year.
4. Please provide the quantity of glass collected in each district in each of the past 5 years.
5. Please advise on the outlets of the glass collected by the contractors, including the quantities of the glass converted into useful substances, with a breakdown of the respective useful substances. How much of the recycled glass cullet was used by the Government? What was the expenditure involved?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 50)

Reply:

1. The Environmental Protection Department (EPD) is actively taking forward the implementation of the Producer Responsibility Scheme (PRS) on glass beverage containers. Amongst others, through open tenders, the EPD appointed 2 glass management contractors to provide waste glass container collection and treatment services for the 3 regions of Hong Kong Island (including Islands District), Kowloon and the New Territories. The contract for Hong Kong Island and the New Territories regions commenced in November 2017 while that for the Kowloon region commenced in May 2018. The 2 contractors have taken over the previous voluntary recycling programmes in early 2019 and, in parallel, further expanded their recycling networks. They have also established and commissioned new treatment facilities and are providing free glass container collection and treatment services across the territory. Besides, we are drafting the relevant subsidiary legislation to provide for the operational details for the implementation of the scheme. We aim to submit the subsidiary legislation to the Legislative Council for scrutiny in the first half of this year.

Under the contracts, the recycling target of the 2 contractors in the first year of the contract is 15 000 tonnes in total, and will gradually increase to 50 000 tonnes per year. In 2019-20, the Government has earmarked \$104 million for payment of the glass container collection and treatment services provided under the 3 glass management contracts. The Waste Management Policy Division of the EPD is responsible for handling various policies and projects on waste management, including implementation of the 3 PRSs on waste electrical and electronic equipment, glass beverage containers and plastic beverage containers. There is no breakdown of the manpower resources involved in the implementation of these schemes. The EPD will create 12 permanent posts (including Environmental Protection Officers and Environmental Protection Inspectors) in 2019-20 to cope with the additional workload arising from the development and implementation of the relevant schemes.

2. As at January 2019, the respective numbers of collection points in the 18 districts of Hong Kong are tabulated below:

District	Number of collection points	District	Number of collection points
Central & Western	317	Islands	73
Eastern	225	Kwai Tsing	102
Southern	149	North	105
Wan Chai	237	Sai Kung	166
Kowloon City	164	Sha Tin	253
Kwun Tong	155	Tai Po	112
Sham Shui Po	160	Tsuen Wan	114
Wong Tai Sin	95	Tuen Mun	173
Yau Tsim Mong	352	Yuen Long	217

3. Both contractors are required under the glass management contracts to deliver monthly not less than 250 tonnes of glass recyclables that meet the contract requirements or the total quantity of glass containers collected in the month, whichever is lower, to the specified storage facilities. If the contractors fail to deliver the specified quantity of glass materials to the specified storage facilities in a certain month, they can make up the relevant amount next month or within a period as agreed by the Government. By imposing this requirement of 250 tonnes, we hope to ensure that there is a specific quantity of glass recyclables for different uses, including the use as filling material in public works. Therefore, the contracts have provided flexibility for contractors to make necessary arrangement in respect of the time of delivery to the storage facilities according to actual circumstances, and the most important thing is to have these glass recyclables recycled and put to suitable recycling purposes.

The contractor for Hong Kong Island and the New Territories regions and the contractor for the Kowloon region commenced glass collection services in January and July 2018 respectively. As at December 2018, the quantity of glass containers collected and the quantity of glass recyclables delivered by the contractors are as follows:

Glass management contract	Total quantity of glass containers collected (tonnes)	Total quantity of glass recyclables delivered (tonnes)
Hong Kong Island (including Islands District)	4 060	2 000
New Territories	3 600	1 930
Kowloon	1 910	950
Total quantity	9 570	4 880

4. We do not have a breakdown of the quantity of glass containers collected by district. The respective total quantities of glass containers collected in the past 5 years are tabulated below:

Year	Total quantity of glass containers collected* (tonnes)
2014	8 400
2015	9 300
2016	9 300
2017	11 000
2018	Under compilation

[*Note: The figures include the quantities of glass containers collected under the voluntary recycling programmes and by private recyclers.]

5. The treated glass recyclables will be sent to local cement and eco-paver producers as well as the specified storage facilities of the EPD for use in the production of cement and eco-pavers, or use as filling material in local works. The glass management contractors' main recycling outlets for the glass containers collected in 2018 are as follows:

Recycling outlets	Quantity (tonnes)
Production of cement	3 320
Production of eco-pavers	610
Using as filling material in local works	950
Total quantity	4 880

610 tonnes of which were used for producing eco-pavers, which were mainly absorbed by public works for use in individual works projects. We do not have any breakdown of the relevant expenditure.

- End -

CONTROLLING OFFICER'S REPLY**ENB091****(Question Serial No. 1488)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (3) NoiseControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Nothing has been mentioned by the Environmental Protection Department (EPD) in the Matters Requiring Special Attention in 2019-20 regarding noise problems except traffic noise problems. Would the Administration advise on the following:

- 1) The noise complaints received in various districts and their types in the past 3 years;
- 2) There have been complaints from members of the public about the excessive noise produced by street performers at the Central Pier and the Tsim Sha Tsui Pier at night time. What specific follow-up measures the Department has in place?

Asked by: Hon IP LAU Suk-ye, Regina (LegCo internal reference no.: 47)Reply:

1) The numbers of complaints received by the Environmental Protection Department (EPD) about different types of noise in the past 3 years are as follows:

2016 (by district and by type)

Types of Complaints	Industrial/Commercial	Construction	Neighbourhood/ Public Areas	Traffic	Aircraft*	Others, such as intruder alarm, etc.	Total
Central and Western	193	175	13	1	0	2	384
Eastern	194	131	20	2	0	4	351
Southern	40	36	5	1	0	4	86
Wan Chai	243	93	9	3	0	3	351
Kowloon City	187	105	6	5	0	6	309
Kwun Tong	90	74	10	8	0	2	184
Sham Shui	186	79	16	4	0	5	290

Types of Complaints	Industrial/Commercial	Construction	Neighbourhood/Public Areas	Traffic	Aircraft*	Others, such as intruder alarm, etc.	Total
Po							
Yau Tsim Mong	335	112	20	9	0	3	479
Wong Tai Sin	61	76	4	5	0	3	149
Islands	36	50	4	1	0	0	91
Kwai Tsing	75	42	15	5	0	1	138
North	100	28	6	6	0	3	143
Sai Kung	89	83	14	9	0	3	198
Sha Tin	127	96	32	10	2	3	270
Tai Po	79	31	9	1	0	2	122
Tsuen Wan	83	45	7	8	0	1	144
Tuen Mun	99	65	12	6	0	3	185
Yuen Long	226	66	25	13	0	7	337
Total	2 443	1 387	227	97	2	55	4 211

* Handling aircraft noise complaints is within the purview of the Civil Aviation Department which is responsible for following up on the cases.

2017 (by district and by type)

Types of Complaints	Industrial/Commercial	Construction	Neighbourhood/Public Areas	Traffic	Aircraft*	Others, such as intruder alarm, etc.	Total
Central and Western	290	136	47	7	0	5	485
Eastern	161	120	35	5	0	14	335
Southern	39	38	5	4	0	2	88
Wan Chai	188	120	22	4	0	4	338
Kowloon City	216	129	42	5	0	5	397
Kwun Tong	135	108	25	6	0	3	277
Sham Shui Po	192	93	28	7	0	2	322
Yau Tsim Mong	302	95	52	5	0	7	461
Wong Tai Sin	65	56	13	2	0	3	139
Islands	35	15	4	0	0	0	54
Kwai Tsing	69	41	19	4	0	1	134
North	81	35	33	7	0	1	157
Sai Kung	103	97	35	4	0	10	249
Sha Tin	137	121	49	11	1	4	323
Tai Po	102	71	22	4	0	2	201
Tsuen Wan	93	38	27	39	0	1	198
Tuen Mun	101	72	23	6	0	3	205

Yuen Long	238	108	44	22	0	10	422
Total	2 547	1 493	525	142	1	77	4 785

* Handling aircraft noise complaints is within the purview of the Civil Aviation Department which is responsible for following up on the cases.

2018 (by district and by type)

Types of Complaints	Industrial/ Commercial	Construction	Neighbourhood/ Public Areas	Traffic	Aircraft*	Others, such as intruder alarm, etc.	Total
Central and Western	166	183	51	4	0	11	415
Eastern	157	116	25	4	0	6	308
Southern	41	41	15	0	0	3	100
Wan Chai	214	92	23	1	0	2	332
Kowloon City	184	117	31	5	0	6	343
Kwun Tong	142	146	34	12	0	4	338
Sham Shui Po	184	96	32	5	0	3	320
Yau Tsim Mong	348	99	59	10	0	10	526
Wong Tai Sin	85	33	19	6	0	3	146
Islands	39	53	9	2	0	2	105
Kwai Tsing	93	39	26	6	0	0	164
North	118	41	35	2	0	2	198
Sai Kung	104	84	31	4	0	7	230
Sha Tin	144	65	55	9	0	5	278
Tai Po	120	50	22	4	0	1	197
Tsuen Wan	129	42	30	7	0	4	212
Tuen Mun	144	55	28	11	0	1	239
Yuen Long	364	75	98	19	0	10	566
Total	2 776	1 427	623	111	0	80	5 017

* Handling aircraft noise complaints is within the purview of the Civil Aviation Department which is responsible for following up on the cases.

2) The areas around the Central Pier and the Tsim Sha Tsui Pier are public places. According to the Noise Control Ordinance (NCO), noise from public places, including noise emanated from any loud-speaker, megaphone, or other device for magnifying sound, is controlled under Sections 4 and 5 of the NCO. If the noise emanated causes annoyance to others, the case is generally handled by the Police. Upon receipt of a complaint from the public, the Police will immediately deploy officers to the scene to conduct investigations. If it is confirmed that the noise concerned causes annoyance, the Police will take enforcement action against the offender. In addition, the area of Hong Kong Cultural Centre Piazza is managed by the Leisure and Cultural Services Department (LCSD). Upon receipt of a relevant noise complaint, the venue management staff of the LCSD will also immediately deploy staff to handle the case.

To address the complaints and concern from the public, the EPD and relevant government departments have been closely monitoring the noise problems caused by street performances at the areas around the Central Pier and the Tsim Sha Tsui Pier as well as other public places. The EPD will provide professional advice and support for the relevant departments, including the Police on evidence collection and the LCSD on noise monitoring and control matters at outdoor leisure venues, with a view to facilitating the effective implementation of enforcement and control measures by various departments in accordance with the NCO. Subsequent to the follow-up actions taken by various departments, the noise emanated from performances at the above venues has already come under control and the situation has significantly improved.

- End -

CONTROLLING OFFICER'S REPLY

ENB092

(Question Serial No. 1496)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department will introduce a pilot scheme in 3 districts to provide free collection service for all types of waste plastics from non-commercial and non-industrial sources. Would the Government please advise on the following:

- 1) Does the above waste plastics from non-commercial and non-industrial sources include polyfoam?
- 2) How is the recovery of polyfoam at present?
- 3) How will the above pilot scheme complement with the existing schemes on plastics recycling bins and Community Green Stations?

Asked by: Hon IP LAU Suk-ye, Regina (LegCo internal reference no.: 42)

Reply:

The Environmental Protection Department (EPD) plans to roll out a 2-year Pilot Scheme on Collection and Recycling Services of Waste Plastics (the Pilot Scheme) in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin) to provide free collection service for waste plastics (including all types of waste plastics like polyfoam) from non-commercial and non-industrial (non-C&I) sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts. The waste plastics will be further processed and recycled to produce recycled raw materials or products. Members of the public have got accustomed to handing recyclable materials to the above locations for recycling. It is expected that the Pilot Scheme can complement the operation of the existing recycling network. On the one hand, it can make good use of the collection and storage functions of the recycling network. On the other hand, it can also save the transportation costs of various stakeholders in the recycling network in making arrangement themselves for the delivery of waste plastics to downstream recyclers for processing, thereby improving the overall cost-effectiveness of waste plastics recycling.

The EPD is tendering the waste plastics collection service contract of the Eastern District, with a view to rolling out the services this year. We will also invite tenders for waste plastics collection service in Kwun Tong and Sha Tin districts one after another later. Having regard to the data collected and experience gained in the Pilot Scheme and the progress of development of the producer responsibility scheme on plastic beverage containers, we will consider expanding the free collection service for non-C&I waste plastics to cover the whole territory.

The logistics cost of polyfoam is high due to its lightweight and space-occupying nature. A large amount of polyfoam recovered and processed can only produce a small amount of plastic raw materials, hence low cost-effectiveness in treatment process. In addition, most of the waste polyfoam contains impurities, such as adhesive tape, or is contaminated, which also makes recycling more difficult. As such, there is currently no large-scale operation or activity on polyfoam recycling. Nevertheless, a polyfoam recovery project funded by the Community Waste Reduction Projects under the Environment and Conservation Fund was launched in 2015-16 to promote and undertake polyfoam recycling. The project was launched in June 2016. As at the end of December 2018, the total quantity of polyfoam recovered has exceeded 102 tonnes.

- End -

CONTROLLING OFFICER'S REPLY

ENB093

(Question Serial No. 1497)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department (EPD) will continue to monitor and enhance the operation of the Recycling Fund to facilitate the upgrading of the operational capabilities and efficiencies of the recycling industry as well as to support other stakeholders to practise recycling at different levels. Would the Government please advise on the following:

- 1) Regarding the Mainland's tightened control for import recyclables, in what specific ways can the Recycling Fund provide assistance to the industry? What are the financial commitments?
- 2) Civic groups like "Waste-no-mall" are formed by residents of various districts on their own initiatives. They regularly set up street booths at various districts to collect plastics and share green knowledge, and are welcomed and supported by local residents. The EPD will support other stakeholders to practise recycling. In what specific ways can the EPD work with the civic groups so that the public's initiatives in participating in environmental protection work and such flexibility can be maintained?

Asked by: Hon IP LAU Suk-ye, Regina (LegCo internal reference no.: 43)

Reply:

1. The Government launched the \$1 billion Recycling Fund in October 2015 for application by the recycling industry to assist in the upgrading of the operational capabilities and efficiencies of the industry, thereby facilitating the sustainable development of the recycling industry, promoting the recovery and recycling of waste, turning waste into resources, and reducing the disposal of waste at landfills. Without compromising the need in safeguarding the use of the Recycling Fund and maintaining effective control on applicants, various facilitation measures have been progressively introduced since the Fund's early stage of operation. The Environmental Protection Department (EPD) is now conducting a mid-term review of the operation of the Recycling Fund, which covers a comprehensive review of the overall operation of the Fund as well as collection of views from the recycling

industry and various stakeholders regarding the existing arrangements of the Fund. The Fund introduced the first stage of enhancement measures in mid-January 2019. We will continue with the mid-term review and plan to introduce the next stage of enhancement measures as soon as possible.

To assist the recycling industry to address the Mainland's progressive tightening requirements on imports of recyclables, the Recycling Fund announced in September 2017 that \$20 million had been earmarked to expand the list of fundable items under Standard Projects to help upgrade the recyclers' ability in processing waste plastics and waste paper. The Recycling Fund also earmarked \$50 million for encouraging recyclers to use compactor trucks for more effective and efficient transportation of waste plastics and waste paper and lower transportation costs. Furthermore, in July 2018, the Recycling Fund increased the amount earmarked for Standard Projects to \$50 million and progressively expanded the funding scope to cover the equipment related to the recycling of waste metals, etc.

2. The Government has all along attached great importance to the promotion of the "Use less, Waste less" culture and has taken various initiatives to promote waste reduction at source and clean recycling at different levels of the community. During the implementation of the relevant work, the EPD has maintained interaction and collaboration with various stakeholders of the community, including non-governmental organisations (NGOs) and civic groups, to encourage the public to actively participate in waste reduction and recycling.

The EPD has been encouraging the public to separate waste at source whether at home or at workplace through the Source Separation of Waste Programme (the Programme). To complement the work in this respect, the Government has also provided funding support to NGOs through the Environment and Conservation Fund (ECF) to set up and operate Community Recycling Centres (CRCs) so as to facilitate the public to practise separation of waste for recovery and to promote waste reduction and recycling activities at the community level. There are currently 17 CRCs, 2 mobile community recycling projects and 50 collection points in Hong Kong, all of which are operated by NGOs. The CRCs maintain close contact with local residents' groups. They not only provide collection services of recyclables, but also regularly deploy environmental protection ambassadors to promote the Programme, set up promotion booths to disseminate messages on waste reduction and recycling, and encourage the public to participate in waste reduction, source separation and recycling of waste.

In addition, the EPD is actively taking forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. Apart from providing recycling services for various types of recyclables, the CGS operators also collect other reusable items (such as used clothes and old books) from the community, and organise swap events from time to time to encourage the public to swap and reuse suitable items. The CGSs also collaborate with other NGOs and community organisations to take forward environmental education, promote the "Use less, Waste less" message and encourage more members of the public to participate in recycling and waste reduction at source.

Since mid-2015, the Government has been implementing the Clean Recycling Campaign continuously to disseminate the message on clean recycling through various channels to promote behavioural change towards clean recycling, thereby increasing the quality and value of recyclables and turning more waste into resources. To enhance the work in this respect, the Environmental Campaign Committee (ECC) engaged 5 non-profit-making organisations to carry out educational and promotional activities on clean recycling at more than 230 private housing estates jointly with local residents' groups in 2016 to 2018. A series of activities were organised to educate the residents on clean recycling and proper recycling procedures, and provide support and training to frontline staff of property management companies, residents' groups and cleansing contractors.

The EPD has been actively promoting green events in recent years and collaborating with organisers of events of various nature and scales to enhance their performance in waste reduction and recycling, thereby setting a green role model for community events. Furthermore, the EPD has collaborated with the Home Affairs Department (HAD) to organise green events in the 18 districts, and worked with the Food and Environmental Hygiene Department to organise Green Lunar New Year (LNY) Fairs at all LNY fair venues across the territory this year to publicise the messages of resource sharing, waste reduction and recycling to members of the public and stall operators. In implementing such work, the EPD and/or the ECC have, through the engagement of NGOs and green groups, assisted the organisers and participants to practise waste reduction, recycling and proper waste handling, thereby instilling the "Use less, Waste less" culture in the community. The ECF has also approved funding for local NGOs and green groups to implement many Environmental Education and Community Action Projects on waste reduction and clean recycling.

Since 2012, the EPD, the ECC and the HAD have worked with the 18 District Councils on the "Community Participation Programme in Environmental Protection". NGOs or non-profit-making organisations may submit funding applications to the District Councils for environmental protection programmes in relation to environmental education, waste reduction at source and recycling at the district level to further cultivate the "Use less, Waste less" culture in the community.

To strengthen on-site support to recycling, the EPD is setting up outreaching teams to closely collaborate with different NGOs, non-profit-making organisations and community partners to educate the public on the importance of waste reduction at source; and to assist members of the public in practising proper waste separation at source and clean recycling, identifying proper outlets for recyclables and preparing for the implementation of various waste reduction initiatives, such as municipal solid waste charging. The outreaching teams will strive to establish and maintain a direct communication network with various stakeholders including property management companies, cleansing workers, residents' groups, District Councils and local representatives. Since December 2018, the outreaching teams have kick-started the pilot outreaching services in 3 districts (namely the Eastern, Kwun Tong and Sha Tin districts). The actual experience gained will serve as reference for gradually expanding the outreaching services to all districts in Hong Kong in future. Moreover, we plan to review and consolidate the existing Community Recycling Network to strengthen the co-ordination and collaboration between the CGSs, the CRCs and other stakeholders in providing convenient collection points to the public, with a view to

enhancing recycling support in the community in various respects so as to encourage the public to participate in recycling.

- End -

CONTROLLING OFFICER'S REPLY

ENB094

(Question Serial No. 1498)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department (EPD) will continue to promote green procurement in the Government and the community. Would the Administration advise on the following:

- 1) What is the current progress of green procurement in the Government?
- 2) In what specific ways will the EPD promote green procurement in non-government organisations (NGOs)? What incentives will be provided? What are the financial commitments to be involved?

Asked by: Hon IP LAU Suk-ye, Regina (LegCo internal reference no.: 44)

Reply:

1) The Government has taken the lead to adopt green procurement to promote environmental protection and set a role model for the community. Government departments should take environmental factors into account in setting out tender specifications and purchase green products as far as possible and where economically rational. The Environmental Protection Department (EPD) has developed the green specifications and guidelines for the goods and services commonly used by the Government after making reference to the standards and practices generally adopted in the market for adoption by departments to practise green procurement. The Government's green procurement list has been expanded to cover 150 items of green products and services. To enhance the overall performance of green procurement in the Government, the EPD has commissioned a consultancy study to further expand the Government's green procurement list to cover more products and services and update the relevant green specifications. The study is expected to be completed in the 4th quarter of 2019.

2) The EPD will continue to step up publicity to introduce the Government's green procurement policy and share its experience in implementing the green procurement policy with various sectors of the community, including non-government organisations, and seek their support through various channels such as organising experience sharing sessions, talks and forums, as well as sending electronic promotional materials, etc. We will also

continue to upload the relevant information, such as the Government's latest green procurement list and the relevant specifications, as well as the local and international best practices onto the EPD's website for the community for reference. Moreover, we will encourage the commercial and industrial sectors to formulate their trade-specific green procurement guidelines having regard to the actual needs of their respective industries and to purchase and use green products and services in their daily operations as far as possible.

Starting from the 2018/19 year of assessment, the capital expenditure incurred in procuring eligible energy efficient building installations and renewable energy installations may be claimed in full in one year so as to encourage the procurement of such equipment. As for vehicles, the Government offers various tax incentives for environment-friendly commercial vehicles and electric vehicles, and has also set up the Pilot Green Transport Fund to subsidise the local transport sectors and non-profit-making organisations to test out green innovative transport technologies.

- End -

CONTROLLING OFFICER'S REPLY

ENB095

(Question Serial No. 1499)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department will continue to promote the use of new energy vehicles including electric vehicles (EVs), and enhance the charging network for EVs. Would the Administration advise on the following:

- 1) What is the existing number of EVs? What is their percentage in the total number of vehicles in Hong Kong?
- 2) What is the current progress of enhancing the charging network for EVs?
- 3) What measures are in place to handle the waste batteries of EVs? What are the financial commitments involved?

Asked by: Hon IP LAU Suk-ye, Regina (LegCo internal reference no.: 45)

Reply:

1) As of February 2019, there are 11 689 electric vehicles (EVs) (including government vehicles and special purpose vehicles) for road use in Hong Kong, representing 1.3% of the total number of vehicles.

2) The Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the Transport Department, the Government Property Agency and the Leisure and Cultural Services Department which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. We will also identify suitable on-street parking spaces to install EV chargers on a trial basis and explore suitable locations to set up pilot quick charging stations for EVs.

In addition, the Government will explore feasible measures to promote the provision of EV charging-enabling infrastructure or chargers in existing private buildings.

3) Waste EV batteries have to be properly handled under the Waste Disposal Ordinance. Most EV manufacturers or agents have currently engaged licensed collectors to

collect/handle their waste EV batteries. After proper preliminary treatment, these waste EV batteries are exported to appropriate treatment facilities in Japan, Korea or Belgium for proper handling and/or recycling. As far as we know, the relevant expenses are borne by the manufacturers, agents or vehicle owners. Although the age of most EVs in Hong Kong remains low and the number of retired EV batteries remains small at this stage, as EVs will become more popular in future, the Environmental Protection Department is exploring with EV suppliers the issues of proper collection and handling of waste EV batteries so as to enhance environmental protection.

- End -

CONTROLLING OFFICER'S REPLY

ENB096

(Question Serial No. 3198)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department will continue to promote green government vessels. Would the Administration please advise on the following:

- 1) What are the specific plan for promoting green government vessels and the financial commitments involved?
- 2) What is the progress of the study on the feasibility of the pilot scheme on green ferry?

Asked by: Hon IP LAU Suk-ye, Regina (LegCo internal reference no.: 46)

Reply:

1. The Government will cater for the operational needs of departments and consider adopting green technologies to reduce emissions in the process of design and procurement of new vessels. As the Environmental Protection Department (EPD) is exploring with relevant departments the application of green technologies in newly procured government vessels where practicable, the specific plan and estimated expenditure are not available for the time being.

2. As the EPD is now discussing the specific contents and implementation details of the pilot scheme on green ferry with relevant departments, the specific implementation plan and estimated expenditure are not available for the time being. We will consult the trade and the relevant committees of the Legislative Council after working out the implementation plan of the pilot scheme.

- End -

CONTROLLING OFFICER'S REPLY

ENB097

(Question Serial No. 0661)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (4) Water

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

In January 2016, the Environmental Protection Department commissioned a consultancy study on "Further Enhancing Quality of Coastal Waters of Victoria Harbour" to conduct extensive surveys on the extent of near shore pollution. It was stated that the study was expected to be completed in 2018, and the Department would, based on the data collected, recommend practicable and targeted measures for individual areas. In this connection, would the Administration advise this Committee on the following:

- a) What are the main results of the study and the details of the recommendations for individual areas?
- b) What are the details of the study and the expenditure involved?
- c) Have follow-up actions been taken based on the results of the study? If yes, what are the details of the follow-up actions, the estimated expenditure and the staff establishment involved?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 2)

Reply:

a) The Environmental Protection Department (EPD) has substantially completed the consultancy study to further enhance the near-shore water quality and the general environment of Victoria Harbour. The consultant of the study has carried out field surveys on pollution sources along the shore of Victoria Harbour, and the findings showed that the pollution problems along the shore of Victoria Harbour were mainly caused by the polluted water discharged from the storm water outfalls. The study has surveyed about 250 storm water outfalls of larger size and 4 000 storm water manholes. High levels of organic pollutants and E. coli were found in about 4% of the manholes investigated. This was probably due to misconnections of foul sewers to storm water drains and non-point source pollution (e.g. leakage from ageing sewers, street activities and cleansing of public places). The consultant's recommendations for improvement included rectification of the misconnections, enhancing collaboration between departments, and raising the public's awareness of reducing the discharge of pollutants to storm water drains at source. The consultant has also recommended a number of engineering solutions, including the

diversion of some of the polluted storm water away from the sensitive residential/recreational harbourfront areas, and the provision of compact and high efficiency dry weather flow interceptors (DWFIs) near the storm water outfalls or at other strategic locations.

b) The study was carried out in 3 stages. The first two stages covered baseline surveys such as visual inspection, odour patrol and sampling at outfalls, as well as evidence-based reviews such as manhole inspections and pollution source surveys in local areas. The third stage covered data analysis, and formulation of pollution control measures and engineering solutions for reducing near shore water pollution. The expenditures on consultancy fees and various surveys incurred in the past 4 years were about \$48 million, and the estimated expenditure in 2019-20 is \$7 million.

c) Having regard to the recommendations of the study, we have begun to progressively implement targeted pollution control measures and works, including construction and modification of DWFIs and rehabilitation of ageing sewers. The information on misconnections of sewers collected in the study has been passed to the relevant government departments for follow-up actions. In addition, we are also carrying out works on upgrading sewage treatment works and provision of public sewers. The above follow-up actions and works will help enhance the quality of coastal waters of Victoria Harbour. The estimated expenditure on the relevant works in 2019-20 is about \$260 million. As the follow-up actions are part of the regular duties of the EPD and the Drainage Services Department, there is no breakdown of staff establishment involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB098

(Question Serial No. 0662)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in the Estimates that the Department will continue to take forward the development of the organic resources recovery centres (ORRCs) and food waste/sewage sludge co-digestion facilities for the treatment of source-separated food waste to achieve bulk reduction of municipal solid waste in the financial year 2019-2020. In this connection, would the Government advise this Committee on:

- a) the sources of the commercial & industrial (C&I) food waste treated by the existing ORRC Phase 1 (ORRC1) by 18 districts and the operating cost of the facility;
- b) the number of educational activities organised by the ORRC1 in the past year, the number of people benefited and the expenditure involved;
- c) the (estimated) staff establishment for the collection and delivery of the C&I food waste to the ORRC, the (estimated) number of service trips to be provided by the food waste collection vehicles daily from the 4 districts (i.e. Hong Kong Island, Kowloon, the New Territories and Islands) and the (estimated) expenditure for the whole delivery service in the financial years 2018-2019 and 2019-2020;
- d) the amount of non-recyclable solid waste generated after food waste treatment by the above facility;
- e) the staff establishment and the expenditure for promoting source separation of food waste to the C&I sectors as well as the collection and delivery of such waste to the ORRC1;
- f) the expected service commencement dates of Phase 2 and Phase 3 of the ORRC and the remaining waste reduction facilities, and the estimated operating expenditure involved.

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 3)

Reply:

- a. The Organic Resources Recovery Centre Phase 1 (O • PARK1) was completed and commissioned in July 2018, with a daily food waste treatment capacity of 200 tonnes. The estimated operating cost in the financial year 2019-20 is about \$54 million. With the adoption of biodegradation technologies in the O • PARK1, food waste is not only

treated properly, but is also turned into energy through biogas generation, and the residue produced after anaerobic digestion will also be converted into compost. During the initial operation of the O • PARK1, it is necessary to gradually increase the amount of food waste treated to ensure that there is sufficient time for the micro-organisms used to degrade food waste in the anaerobic tanks to grow steadily. At present, about 100 tonnes of commercial and industrial (C&I) food waste are being treated at the O • PARK1 per day. Details of their sources are set out in Annex 1.

- b. As at February 2019, 4 visits have been organised since the commissioning of the O • PARK1 in July 2018, with a total of 38 participants, including 24 Legislative Councillors and assistants to the Legislative Councillors, as well as 14 persons from the food and beverage sectors. The relevant expenditure was absorbed by the operating cost of the O • PARK1.
- c. To encourage the C&I sectors to recycle food waste properly and achieve the target of turning waste into energy, the Government launched a pilot scheme on 1 July 2018 to source separate and collect food waste generated from 40 public markets and cooked food venues managed by the Food and Environmental Hygiene Department (FEHD), as well as 9 shopping centres and wet markets managed by the Hong Kong Housing Authority (HA), for delivery to the O • PARK1 for recycling. The relevant expenditure was about \$16 million in 2018-19, including the expenditure of 21 FEHD staff. The estimated expenditure is about \$21.95 million in 2019-20, including the expenditure of 22 FEHD staff.

The Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. Under the pilot scheme, we are discussing with the relevant government departments on extending free food waste collection service to other public markets, cooked food venues and shopping centres under the FEHD and the HA and other facilities (e.g. more wholesale markets under the Agriculture, Fisheries and Conservation Department and hospitals under the Hospital Authority, etc.). Besides, we are actively preparing for free food waste collection service for all primary and secondary schools, and tertiary institutions in Hong Kong. In February this year, we also invited school lunch suppliers to participate in the above pilot scheme by collecting the food waste generated from their supply of lunch for primary and secondary schools and food left uneaten by students, and delivering such food waste to the O • PARK1. About 10 school lunch suppliers have indicated their interest in participating in the above pilot scheme at present. The contractor of the O • PARK1 engaged by the EPD is getting in contact with the interested school lunch suppliers to discuss the food waste collection arrangements. It is expected that the food waste collection service can be launched in the second quarter of this year. In addition, the EPD is getting in touch with canteens of the tertiary institutions to discuss various feasible options to provide free food waste collection service for them under the pilot scheme. Most tertiary institutions have indicated their interest in participating in the above pilot scheme.

We will also explore the provision of free food waste collection service for some of the C&I establishments which have been proactively delivering their food waste from

different districts to the O • PARK1 at present. The number of establishments involved and the scale of collection are subject to the treatment capacities of the food waste recycling facilities.

Since we are still discussing and examining the detailed operational arrangements of the pilot scheme, the number of daily service trips to be provided for the delivery of food waste from different districts to the recycling facilities is not available at this stage.

The estimated expenditure for implementing the pilot scheme to provide free food waste collection service in 2019-20 is about \$55 million. 7 additional non-directorate professional staff of the EPD (including Environmental Protection Officer and Environmental Protection Inspector grades) will be dedicated to implementing source separation and collection of food waste.

- d. The O • PARK1 is installed with an advanced pre-treatment system which can remove impurities and the solid waste which cannot be effectively decomposed during the anaerobic digestion process. Since the commissioning of the O • PARK1, an average of about 10% of the food waste received is untreatable solid waste (e.g. plastic bags and metals).
- e. The EPD will arrange briefing sessions to encourage C&I establishments to separate food waste at source, collect and deliver food waste to the Organic Resources Recovery Centres (ORRCs) for treatment. We will also provide training for establishments interested in practising source separation of food waste. About 190 C&I establishments have participated in such training at present. The EPD will also arrange a contractor to provide suitable guidance and training for operators of public market stalls, cooked food venues and HA shopping centres, which include the advices on how to practise source separation, collection and delivery of food waste. The relevant training work is absorbed by the existing establishment of the EPD. The estimated expenditures involved in the financial years 2018-19 and 2019-20 were about \$360,000 and \$240,000 respectively.
- f. The EPD is seeking funding approval from the Legislative Council for detailed design and construction works of the Organic Resources Recovery Centre Phase 2 (ORRC2). If the funding is approved and the contract is awarded in the first half of 2019, the ORRC2 is expected to be commissioned in 2022 the earliest, with a daily food waste treatment capacity of 300 tonnes. The estimated annual recurrent operating expenditure is about \$107.92 million.

The EPD is conducting an engineering feasibility study and an Environmental Impact Assessment for the ORRC Phase 3 (ORRC3). The ORRC3 is anticipated for commissioning in 2026 with a daily food waste treatment capacity of 300 tonnes. As the engineering feasibility study is still underway, the estimated annual recurrent operating expenditure is not available at present.

The EPD is working with the Drainage Services Department (DSD) to examine the use of existing and planned sewage treatment works (STW) to take forward “food waste/sewage sludge anaerobic co-digestion” technology. The first “food

waste/sewage sludge anaerobic co-digestion” trial scheme (the Trial Scheme) will be carried out at the Tai Po STW. The food waste pre-treatment facilities are scheduled for commissioning in the first half of this year and can process 50 tonnes of food waste per day. The estimated average annual recurrent operating expenditure is about \$11.30 million. We are also planning to extend the Trial Scheme to cover the Sha Tin STW for commissioning in 2022, with a daily food waste treatment capacity of 50 tonnes. The estimated operating expenditure is still under study. In parallel, we will study with the DSD to further extend the application of the “food waste/sewage sludge anaerobic co-digestion” technology to other STWs which have been or will be installed with a sludge anaerobic digestion system (such as the STWs in Yuen Long and Hung Shui Kiu). The completion date and estimated operating expenditure of these facilities are not available at this stage.

**C&I sources of food waste treated by
the Organic Resources Recovery Centre Phase 1
(by 18 Districts)**

District	Commercial and Industrial Establishments
1. Yau Tsim Mong District	Tai Kok Tsui Market and Cooked Food Centre The Peninsula Hong Kong Queen Elizabeth Hospital Park Hotel International Limited Kwun Chung Market and Cooked Food Centre Yau Ma Tei Market Fa Yuen Street Market and Cooked Food Centre Royal Plaza Hotel Hang Seng 113 Royal Pacific Hotel & Towers Prince Hotel, Hong Kong InterContinental Hong Kong The Langham Hong Kong Cordis, Hong Kong Gateway, Hong Kong Eaton Hotel Hong Kong Haiphong Road Temporary Market cum Haiphong Road Temporary Cooked Food Hawker Bazaar Harbour City The Marco Polo Hong Kong Hotel Sheraton Hong Kong Hotel MOKO B P International
2. Sham Shui Po District	Festival Walk (Festival Walk (2011) Limited) Pei Ho Street Market and Cooked Food Centre Caritas Medical Centre Cheung Sha Wan Wholesale Food Market Po On Road Market and Cooked Food Centre Nam Shan Shopping Centre Shing Ming Catering Group Company Limited

District	Commercial and Industrial Establishments
3. Kwai Tsing District	Bless International Group Limited North Kwai Chung Market Cheung Ching Commercial Complex Tsing Yi Market Lei Muk Shue Shopping Centre Metroplaza Kwai Chung Shopping Centre Kwai Chung Hospital Kwai Shing West Shopping Centre Wing Fong Street Market Princess Margaret Hospital Lai King Building, Princess Margaret Hospital Lai Yiu Shopping Centre
4. Tsuen Wan District	Yan Chai Hospital Heung Che Street Market and Cooked Food Centre Panda Hotel KOLOUR • Tsuen Wan I Tsuen Wan Market Tsuen Wan Plaza Yeung Uk Road Market
5. Islands District	Hong Kong Disneyland Resort (Hongkong International Theme Parks Limited) Airport Authority Hong Kong Cathay Pacific Catering Services (H.K.) Limited Fu Tung Market
6. Kowloon City District	Kowloon City Market and Cooked Food Centre To Kwa Wan Market and Cooked Food Centre Hung Hom Market and Cooked Food Centre Ching Long Shopping Centre Homantin Market Oi Man Market Hong Kong Baptist University The Hong Kong Polytechnic University

District	Commercial and Industrial Establishments
7. Wong Tai Sin District	Tai Shing Street Market and Cooked Food Centre Ngau Chi Wan Market and Cooked Food Centre Pentahotel Hong Kong, Kowloon Choi Hung Road Market and Cooked Food Centre Fung Tak Market Lok Fu Market Sheung Fung Street Market
8. Central & Western District	Sheung Wan Market and Cooked Food Centre Smithfield Market and Cooked Food Centre Tai Kwun 39 Conduit Road (Clubhouse) Swire Properties Limited Shek Tong Tsui Market and Cooked Food Centre Western Wholesale Food Market Sai Ying Pun Market Tung Wah Hospital Wellington Street Hang Seng Bank (Headquarters) Regence Royale Clubhouse Island Pacific Hotel HSBC Canteen Kong Chin Trading Co.
9. Eastern District	AEON Stores (HK) Co., Limited Sai Wan Ho Market and Cooked Food Centre City Garden Hotel Chai Wan Market and Cooked Food Centre Kornhill Plaza Java Road Market and Cooked Food Centre Aldrich Bay Market and Cooked Food Centre Electric Road Market and Cooked Food Centre Yue Wan Market and Cooked Food Centre Quarry Bay Market and Cooked Food Centre

District	Commercial and Industrial Establishments
10. Southern District	<p>Young Master Brewery</p> <p>Tin Wan Market and Cooked Food Centre</p> <p>Bel-Air Clubhouse</p> <p>Aberdeen Market and Cooked Food Centre</p> <p>Ocean Park Hong Kong</p> <p>Cheshire Home, Chung Hom Kok</p> <p>Wah Fu (I) Shopping Centre</p> <p>Wah Fu (II) Commercial Complex</p> <p>Wong Chuk Hang Hospital</p> <p>Grantham Hospital</p> <p>Yue Kwong Road Market and Cooked Food Centre</p> <p>Queen Mary Hospital</p> <p>Ap Lei Chau Market and Cooked Food Centre</p>
11. Wanchai District	<p>Hopewell Holdings Limited</p> <p>Hysan Place</p> <p>The Excelsior Hong Kong</p> <p>Hong Kong Convention and Exhibition Centre</p> <p>Hong Kong Jockey Club</p> <p>Time Square</p> <p>Harbour Centre</p> <p>Wan Chai Methodist Centre for the Seniors</p> <p>Wong Nai Chung Market and Cooked Food Centre</p> <p>Sun Hung Kai Centre</p> <p>Sun Hung Kai Properties</p> <p>Causeway Bay Market</p> <p>Lockhart Road Market and Cooked Food Centre</p> <p>Bowrington Road Market and Cooked Food Centre</p> <p>Wan Chai Market</p>

District	Commercial and Industrial Establishments
12. Shatin District	Café de Coral Group Union Hospital Swire Coca-cola HK Ltd. Shatin Hospital A&W Food Service Ltd. Prince of Wales Hospital A-1 Bakery Co., (HK) Ltd Chun Shek Market New Town Plaza Phase III Lek Yuen Market Hin Keng Market
13. Tai Po District	Tai Yuen Market Fairwood Fast Food Limited Tai Po Mega Mall Tai Po Hospital Café De Coral Central Processing Plant 1 Kee Wah Group Limited TWGHs - Pao Siu Loong Care & Attention Home TWGHs - Wu York Yu Care & Attention Home TWGHs - Wu Chiang Wai Fong Care & Attention Home Maxim's Food Production Centre (2 Dai Li Street) Fu Shin Market Alice Ho Miu Ling Nethersole Hospital Uptown Plaza Kwong Fuk Market Lok Sin Tong Chu Ting Cheong Home for the Aged Hung Fook Tong
14. Kwun Tong District	apm E-Max (Kowloonbay International Trade & Exhibition Centre) United Christian Hospital Amoy Plaza Hoixe Catering Co. Ltd
15. Sai Kung District	TKO Gateway Market Sheung Tak Market East Point City (Commercial) The Hong Kong University of Science and Technology Wellcome Fresh Food Centre (The Dairy Farm Company, Limited)

District	Commercial and Industrial Establishments
16. Northern District	Yee Tat Enterprise (HK) Limited Landmark North North District Hospital Hong Kong Organic Waste Recycling Centre Limited Green Environmental Kitchen Residue Recycle Limited
17. Tuen Mun District	Nestle Hong Kong Ltd - Nespresso Division V City Tai Hing Market Shan King Market Tuen Mun Hospital Castle Peak/ Siu Lam Hospital Kin Sang Market Hong Kong Gold Coast Hotel South China Reborn Resources (Hong Kong) Company Limited Gold Coast Piazza Gold Coast Yacht and Country Club The Garden Company Limited Butterfly Market
18. Yuen Long District	YOHO MALL I YOHO MALL II Yuen Long Plaza Tin Shing Market Shing Hing Hong Recycling Service Company Limited San Miguel Brewery Hong Kong Limited Hong Kong Gourmet Limited Nestle Hong Kong Ltd Pok Oi Hospital

- End -

CONTROLLING OFFICER'S REPLY

ENB099

(Question Serial No. 0663)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the community recycling project "Community Green Stations (CGSs)", would the Government advise this Committee on the following:

- a) What are the number of visitors, the quantities of various types of recyclables (including waste paper, waste metals, waste plastics, old electrical appliances, rechargeable batteries, compact fluorescent lamps, fluorescent tubes and glass bottles) collected and the whereabouts of the recyclables handled each month at the established CGSs?
- b) What are the number of educational activities organised, the number of people benefited from the educational activities and the expenditure involved for the various CGSs since their establishment?
- c) What are the staff establishment and operating expenditure involved for the above established CGSs?
- d) Since there are opinions that the locations of the CGSs are inconvenient, please advise on the factors considered in the selection of CGS sites. When considering sites for CGSs still under planning in the future, will the Government select sites that are convenient to the public so as to attract more people to participate in recycling?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 4)

Reply:

a) and b)

The Environmental Protection Department (EPD) is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. As at the end of 2018, 7 CGSs have been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. Details of the operating expenditure and quarterly operational statistics of the CGSs in 2018 are set out below:

	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Tuen Mun	Kwai Tsing
Operating expenditure in 2018 (\$'000)	4 760	3 910	4 270	3 460	4 700	2 100	770

Note: The operating expenditure of individual CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions. We do not have a breakdown of the expenditure of individual activities of the CGSs.

	1 st Quarter of 2018					2 nd Quarter of 2018				
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po
Quantity of various types of recyclables handled (kg)										
Electrical appliances and computer products	24 881	21 539	17 433	15 082	6 382	13 169	17 312	7 018	10 521	7 502
Glass bottles	87 401	75 191	64 403	51 008	38 726	88 463	76 959	65 979	55 215	65 586
Compact fluorescent lamps/ fluorescent tubes	1 178	1 413	696	787	115	1 050	1 103	444	722	716
Rechargeable batteries	116	507	104	298	243	155	228	80	200	161
Used books	637	123	11	1 068	516	1 343	631	281	1 441	884
Clothing	481	473	401	1 694	1 022	959	1 215	447	1 820	1 941
Waste paper	509	1 039	5 387	6 640	685	412	1 788	6 497	6 183	5 131
Waste plastics	81	1 485	1 358	1 171	1 447	361	2 432	3 831	1 757	5 799
Waste metals	9	269	306	863	121	93	621	594	547	492
Number of educational activities and visitors										
Number of activities	72	75	53	36	96	66	44	67	57	68
Number of visitors	7 295	40 360	6 618	5 383	7 135	7 383	46 211	6 955	5 835	7 821

Note: As the Tuen Mun CGS and the Kwai Tsing CGS commenced operation in late September and November 2018 respectively, only the operational statistics for the 4th quarter of 2018 are available.

	3 rd Quarter of 2018				
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po
Quantity of various types of recyclables handled (kg)					
Electrical appliances and computer products	19 270	17 866	9 687	11 902	17 436
Glass bottles	107 591	81 973	66 774	58 993	71 929
Compact fluorescent lamps/ fluorescent tubes	1 162	620	643	808	403
Rechargeable batteries	238	625	108	121	56
Used books	393	7 748	262	2 047	320
Clothing	486	1 507	264	634	845
Waste paper	82	2 906	4 301	11 175	7 762
Waste plastics	116	2 982	2 596	2 924	7 903
Waste metals	34	710	348	862	2 136
Number of educational activities and visitors					
Number of activities	31	48	48	52	76
Number of visitors	6 164	52 817	7 936	5 430	7 890

	4 th Quarter of 2018						
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Tuen Mun	Kwai Tsing
Quantity of various types of recyclables handled (kg)							
Electrical appliances and computer products	12 371	19 920	13 062	17 327	15 874	7 264	1 003
Glass bottles	93 387	80 975	65 572	63 632	101 277	61 091	33 539
Compact fluorescent lamps/ fluorescent tubes	804	887	601	749	406	352	550
Rechargeable batteries	409	469	108	475	203	115	17
Used books	650	1 102	856	987	442	0	210
Clothing	580	1 107	485	971	1 257	0	778
Waste paper	297	4 000	3 367	8 693	11 691	431	1 420
Waste plastics	235	3 282	2 970	3 413	10 776	470	1 661
Waste metals	354	633	403	2 321	1 118	46	48
Number of educational activities and visitors							
Number of activities	37	45	45	47	68	41	30
Number of visitors	7 330	50 132	9 047	5 278	8 940	15 924	2 308

The arrangements for the various types of recyclables in the above table are as follows:

Electrical appliances and computer products	The electrical appliances and computer products were mainly sent to ALBA Integrated Waste Solutions (Hong Kong) Ltd. for refurbishment or dismantling. The company is the operator of the
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	Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK); some of them were sent to Vannex International Limited, which is the contractor of the Computer and Communication Products Recycling Programme; and some of them were sent to Li Tong (H.K.) Telecom Company Limited, which is a contractor of the EPD, for dismantling and recycling.
Glass bottles	All glass bottles were sent to glass management contractors engaged by the EPD for processing. The glass recyclables after processing were used for production of cement and eco-pavers, or used as fill materials in various public works projects.
Compact fluorescent lamps/ fluorescent tubes	All compact fluorescent lamps/ fluorescent tubes were sent to the Ecospace Limited for proper handling. The company is the contractor of the Chemical Waste Treatment Centre.
Rechargeable batteries	All rechargeable batteries were sent to the Vannex International Limited for export for further processing. The company is the contractor of the Rechargeable Battery Recycling Programme.
Used books and clothing	Reuse of used books and clothing was mainly arranged through donation, exchange programmes and second-hand shops. Some of them would be kept in stock for use in future functions.
Waste paper, waste plastics and waste metals	All waste paper, plastics and metals were handled by private recyclers through tendering.

c) The total cost for capital works of all CGSs is estimated to be about \$400 million. The operating expenditure of individual CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions. At present, there are a total of 17 posts tasked to implement this initiative and monitor the operation of the CGSs, including 16 permanent posts and 1 time-limited post (until 2020).

d) On the site selection for a CGS, the site area should generally be no less than 1 500 square metres and we have, as far as practicable, been identifying sites that are conveniently located to facilitate visits by local residents. Despite the fact that it is quite challenging to identify suitable sites in densely populated areas, we understand the importance of bringing convenience to the public and will therefore avoid setting up the CGS in remote area of the district. The CGSs currently in service or under planning and construction broadly meet the above site selection criteria. In addition, the CGS operators will set up mobile collection points in the relevant district to provide more channels and flexibility for the collection of recyclables. The CGS operators will also send collection vehicles to pick up recyclables at different locations within their respective districts.

- End -

CONTROLLING OFFICER'S REPLY**ENB100****(Question Serial No. 0664)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

The Government has been practising green procurement in various departments. In this connection, would the Administration advise this Committee on the following:

- a) How did the government departments practise green procurement and what were the expenditures involved in the past 3 years? Is there any plan for the Government to step up its effort in practising green procurement? If yes, what are the details and expenditure?
- b) It is mentioned in the Estimates that the Department will continue to promote green procurement in the community in the coming year. What is the effectiveness of such plan so far? What are the specific plans to promote green procurement in the community in the future?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 6)Reply:

- (a) Government departments should take environmental factors into account in setting out tender specifications and purchase green products as far as possible and where economically rational. The Environmental Protection Department (EPD) has developed the green specifications and guidelines for the goods and services commonly used by the Government after making reference to the standards and practices generally adopted in the market for adoption by departments to practise green procurement. The Government's green procurement list has been expanded to cover 150 items of products and services.

The expenditures of government departments on the procurement of green products in 2018 are still being compiled. The total expenditures in 2016 and 2017 are tabulated below:

Year	Total expenditure (HK\$)
2016	1,127,757,000
2017	1,183,385,000

To enhance the overall performance of green procurement in the Government, the EPD has commissioned a consultancy study to further expand the Government's green procurement list to cover more products and services and update the relevant green specifications. The study is expected to be completed in the 4th quarter of 2019. The estimated expenditure is \$1.15 million.

- (b) The EPD will continue to step up publicity to introduce the Government's green procurement policy and share its experience in implementing the green procurement policy with various sectors of the community and seek their support through various channels, such as organising experience sharing sessions, talks and forums, as well as sending electronic promotional materials, etc. We will also continue to upload the relevant information, such as the Government's latest green procurement list and the relevant specifications, as well as the local and international best practices onto the EPD's website for the community for reference. Moreover, we will encourage the commercial and industrial sectors to formulate their trade-specific green procurement guidelines having regard to the actual needs of their respective industries and to purchase and use green products and services in their daily operations as far as possible.

- End -

CONTROLLING OFFICER'S REPLY**ENB101****(Question Serial No. 0665)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Hong Kong has been relying on 3 strategic landfills to treat its waste, and there is a rising trend in the amount of waste treated each year. In this connection, would the Administration advise on the following:

- What were the types and quantities of the waste received as well as proportions of various types of waste received in each of the landfills in the past 3 years?
- What are the estimated remaining service lives and remaining capacities of the 3 strategic landfills?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 7)Reply:

- The quantities and proportions of various types of waste received by the 3 strategic landfills from 2016 to 2018 are tabulated below.

Year	North East New Territories (NENT) Landfill (tonnes per day on average)			South East New Territories (SENT) Landfill (tonnes per day on average)			West New Territories (WENT) Landfill (tonnes per day on average)		
	Municipal Waste	Overall Construction Waste	Special Waste	Municipal Waste	Overall Construction Waste	Special Waste	Municipal Waste	Overall Construction Waste	Special Waste
2016	2 923 (73%)	920 (23%)	176 (4%)	17 ⁽³⁾ (1%)	2 482 (99%)	0 ^{(2),(3)} (0%)	7 405 (84%)	1 020 (12%)	389 (4%)
2017	3 117 (69%)	1 160 (26%)	213 (5%)	0 ⁽³⁾ (0%)	2 300 (100%)	0 ⁽³⁾ (0%)	7 616 (87%)	747 (9%)	363 (4%)
2018	3 487 (69%)	1 317 (26%)	242 (5%)	0 ⁽³⁾ (0%)	2 140 (100%)	0 ⁽³⁾ (0%)	7 940 (89%)	624 (7%)	345 (4%)

Notes:

- (1) The percentage in bracket is the proportion of that type of waste in the total quantity of solid waste received by the landfill.
- (2) 0 means the quantity is less than 0.5 tonnes per day on average, and 0% means the percentage is less than 0.5%.
- (3) Since 6 January 2016, the SENT Landfill has only received construction waste. Therefore, the average daily quantity of municipal waste and special waste disposed of at the SENT Landfill in 2016 is calculated based on the total intake quantity from 1 January 2016 to 5 January 2016 divided by the total number of days in the year.

b) When estimating the serviceable lives of the landfills, we need to consider a wide range of factors, including population growth, level of economic and construction activities, implementation of waste reduction initiatives, provision of other upstream waste treatment facilities (such as T • PARK, organic resources recovery centres, etc.), design and development of the landfill, mode of landfill operation, etc. As most of these factors are dynamic in nature, we will review the serviceable lives of the landfills from time to time, having regard to the latest available information. As at the end of 2018, with the funding approval of the Legislative Council for implementing the South East New Territories Landfill Extension Scheme and the North East New Territories Landfill Extension Scheme, we estimated that the remaining capacities of the current 3 strategic landfills could cope with the local waste disposal need up to late 2020s. We are pressing on with the implementation of the 3 landfill extension schemes.

- End -

CONTROLLING OFFICER'S REPLY

ENB102

(Question Serial No. 0666)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the promotion of clean recycling at source, waste reduction at source and proper separation of waste in the community, would the Administration advise this Committee on the following:

- a) What were the numbers of visitors, the quantities and types of recyclables received as well as the operating costs of the various community recycling centres in the past 3 years?
- b) What were the numbers of educational activities organised by the Administration in promoting clean recycling at source, waste reduction at source and proper separation of waste, as well as the target groups, the numbers of people benefited and the costs of these educational activities in the past 3 years?
- c) At present, the types of paper and waste plastics which can be recycled cover three types of paper and two types of plastic bottles only. Would the Administration advise on the quantities of these three types of paper and two types of plastic bottles recovered across the territory and the quantities of the remaining types of paper and plastics which could not be recycled in the past year? Has a timetable been set for collection of these remaining types of paper and plastics which cannot be recycled? If yes, what are the details?
- d) In the light of the tightening of requirements for importing recyclables by the Mainland, has the Administration promoted the use of recyclable materials to replace polyfoam for take-away food containers in restaurants to reduce waste generation? If yes, what are the details?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 8)

Reply:

(a) The Environmental Protection Department (EPD) has been encouraging the public to separate waste at source whether at home or at workplace through the Source Separation of Waste Programme (the Programme). As at the end of 2018, over 2 100 housing estates, some 700 rural villages and over 1 000 industrial and commercial buildings have participated in the Programme. We have now placed about 16 000 sets of waste separation bins at public places, schools, government office buildings, country parks, as well as

housing estates and commercial and industrial (C&I) buildings which have participated in the Programme to facilitate source separation of waste by the public. The provision of recycling bins covers over 80% of the places where Hong Kong people live and work.

As single block buildings in older districts usually do not have property management company for implementing and managing recycling programmes or the space for setting up waste recovery facilities, the EPD has set up Community Recycling Centres (CRCs) in various districts through the Environment and Conservation Fund (ECF) to provide services for residents living in these buildings, so as to facilitate their separation of waste for recovery and to promote waste reduction and recycling activities at the community level. There are currently 17 CRCs, 2 mobile community recycling projects and 50 collection points in Hong Kong, all of which are operated by non-government organisations (NGOs).

In the past 3 years (2016 to 2018), the quantities and types of recyclables received by and the approved funding for the various CRCs are tabulated below. The CRCs do not keep records on the number of visitors.

Community Recycling Centre	2016 to 2018			Approved funding (\$m)
	Quantity of recyclables received (tonnes)			
	Plastics	Glass	Electric and electronic equipment	
Central & Western Mid-Levels Owners Association – 121C Plastic Recycling Centre	188.9	60.1	5.9	6.14
Fong Chung Social Service Centre – Dynamic Plastic Waste Collection Centre	211.8	26.7	1.2	4.15
121C Society For Recycling – Causeway Bay and Wan Chai Society For Recycling Project	148.5	22.3	5.3	6.08
121C Society For Recycling – Southern District Community Recycling Centre	127.6	0.4	0.8	5.37
Tai Kok Tsui Resources Centre Association – Meet Up Greens	252.8	2.3	5.6	5.96
Cheung Sha Wan Kai Fong Welfare Association – Eco-Community Recycling Centre	260.0	1.0	2.5	7.11
United Labour Chi Hong Association Limited – Community Recycling Center	187.7	0.5	0.5	10.07

Community Recycling Centre	2016 to 2018			Approved funding (\$m)
	Quantity of recyclables received (tonnes)			
	Plastics	Glass	Electric and electronic equipment	
Boys' Brigade – Hung Hom District Waste Recovery Centre	203.7	4.6	2.9	6.55
Boys' Brigade – To Kwa Wan District Waste Recovery Centre	344.2	2.4	3.5	4.47
East Kowloon District Residents' Committee Limited – Wong Tai Sin Community Recycling Center	341.0	12.0	31.6	8.53
Boys' Brigade – Kwai Tsing District Waste Recovery Centre	303.6	9.3	2.9	4.47
Boys' Brigade – Tsuen Wan District Waste Recovery Centre	294.3	2.6	2.2	4.47
New Opportunity Limited – Tuen Mun Environmental Centre	366.3	4.8	19.4	6.09
New Opportunity Limited – Yuen Long Environmental Education Centre	223.8	2.9	10.5	4.36
Action Health Limited – North District Recycling Centre	261.1	131.2	9.7	4.38
North District Residents Association Limited – North District Recycling Centre	126.9	Not applicable	1.5	7.02
Environmental Association – Ways for Plastic Recycling	436.1	161.6	11.0	3.86
Ma On Shan Youth Association – Shatin Recycle Centre 2.0 ¹	119.9	4.8	3.9	3.96
Tseung Kwan O Kai Fong Joint Association Limited – Source Separation of Domestic Waste ¹	243.5	Not applicable	Not applicable	5.49

Community Recycling Centre	2016 to 2018			Approved funding (\$m)
	Quantity of recyclables received (tonnes)			
	Plastics	Glass	Electric and electronic equipment	
Synergy Community Service Centre – Kwun Tong Community Waste Recovery Centre ²	4.0	0.2	0.2	-
Total	4 645.7	449.7	121.1	108.53

Note 1: The CRCs in Sha Tin and Sai Kung are operated in the form of mobile community recycling projects.

Note 2: The CRC in Kwun Tong ceased operation on 1 April 2016.

(b) We have been striving to promote waste reduction at source, source separation of waste and clean recycling through publicity and educational activities. The above CRCs also organise various publicity and educational activities regularly to raise public awareness about source separation and recycling. The expenditure involved is met by the approved funding. In addition, the EPD has collaborated with the Environmental Campaign Committee (ECC) to take forward a Clean Recycling Campaign since mid-2015 to disseminate the message on clean recycling through various channels, including Announcements in the Public Interest, posters, leaflets, the free mobile application “Waste Less” and new designs on the front panel of public recycling bins, so as to promote behavioural change towards clean recycling, thereby increasing the quality and value of recyclables and turning more waste into resources. From 2016 to 2018, the ECC engaged non-profit-making organisations to carry out educational and promotional activities on clean recycling at more than 230 private housing estates, organise a series of activities to encourage residents to learn more about clean recycling and practise correct recycling procedures, and provide support and training for frontline property management staff, residents’ associations and cleansing contractors. The total number of participants in these activities was more than 20 000 and the total expenditure was about \$5 million.

The EPD is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. The CGS operators will proactively connect with the housing estates and property management companies in their districts to organise various types of environmental educational activities. There are currently 7 CGSs in operation (including Sha Tin, Eastern, Kwun Tong, Yuen Long, Sham Shui Po, Tuen Mun and Kwai Tsing). In the past 3 years (2016 to 2018), the CGSs received more than 760 000 visitors and organised more than 3 700 environmental educational activities. The expenditure on these environmental educational activities was met by the operating expenditure of the respective CGSs. A breakdown of the expenditure by individual activity under the CGSs is not available.

Regarding co-operation with the District Councils (DCs), the EPD, the ECC and the Home Affairs Department have worked with the DCs on the “Community Participation Programme in Environmental Protection” since 2012 to jointly promote environmental

education, waste reduction at source and recycling at the district level to further cultivate the “Use less, Waste less” culture in the community. In the past 3 years (2016 to 2018), a total of 164 promotion activities were organised for the residents of the 18 districts with a total of about 190 000 participants. The total estimated expenditure was about \$10.8 million.

The ECF has also approved funding for local NGOs and green groups to implement many Environmental Education and Community Action Projects on waste reduction and clean recycling. In the past 3 years (as at 31 December 2018), the funding involved amounted to about \$18 million. We do not keep record on the number of participants of these projects.

(c) The Mainland has progressively tightened its import requirements on recyclables starting from January 2018, including a ban on the import of waste plastics and unsorted waste paper. Given that over 90% of locally generated waste paper and waste plastics are exported to the Mainland, in the light of these new requirements, we have to induce changes including behavioural ones in source separation of recyclables. This will not only help ensure that the three types of waste paper (namely newspapers, office papers and cardboards) recovered in Hong Kong and accepted by the Mainland for import contain less than 0.5 per cent of impurities, but also facilitate the turning of waste plastics into raw materials, with a view to meeting the latest Mainland requirements. Specifically, members of the public will be educated to focus on clean recycling of waste plastic bottles: the bodies of the empty waste plastic containers of beverages or personal care products should be rinsed briefly where practicable before putting into the recycling bins for waste plastics. Other clean and properly separated waste plastics that are not bottle-shaped may be stored up to a certain amount before being delivered to the CGSs. As for waste paper, only 3 types of waste paper, namely cardboards, newspapers and office papers, should be recycled. All other types of waste paper should not be put into recycling bins. Paper recyclables should be kept dry and clean, and adhesive tapes on cardboards and staples and paper clips on office papers should also be removed as far as possible.

The quantities of paper and plastics recovered locally in 2017 were 792 500 tonnes and 115 600 tonnes respectively. The EPD does not have a breakdown of the figures of recovery by type of plastics and paper. The relevant figures for 2018 are still being compiled.

Regarding the recovery of plastics, due to the low density, a great variety and the bulky volume of plastic materials, the costs of collection, sorting, storage and transportation of waste plastics are high, resulting in their low economic value and recyclability. On the other hand, the Mainland has progressively tightened its import control of recyclables. The operation mode which the local recycling industry has been adopting (i.e. collecting, baling, and exporting) can no longer be sustained. To assist the recycling industry to address the Mainland’s progressive tightening requirements on imports of recyclables, the Recycling Fund announced in September 2017 that \$20 million had been earmarked to expand the list of fundable items under Standard Projects to help upgrade the recyclers’ ability in processing waste plastics and waste paper. The Recycling Fund also earmarked \$50 million for encouraging recyclers to use compactor trucks for more effective and efficient transportation of waste plastics and waste paper and lower transportation costs. In July 2018, the Recycling Fund further increased the amount earmarked for Standard Projects to \$50 million. To raise the quantities of waste plastics recovered from non-commercial and non-industrial (non-C&I) sources and enhance public confidence in the

waste separation and recycling system, the EPD will roll out a two-year pilot scheme in Eastern, Kwun Tong and Sha Tin districts to provide free collection service for waste plastics from non-C&I sources (including all types of waste plastics), with a view to gaining practical experience before expanding the service to the whole territory. We invited tender for the waste plastics collection service of Eastern District in February 2019, with a view to rolling out the services within 2019. We will also invite tenders for waste plastics collection service in Kwun Tong and Sha Tin districts one after another later so as to implement the scheme in a progressive manner. Having regard to the data collected and experience gained in the said pilot scheme and the progress of development of the producer responsibility scheme on plastic beverage containers, we will consider expanding the free collection service for non-C&I waste plastics to the whole territory in a prompt manner.

Waste paper itself has a recycling value and has been collected by private recyclers mainly for exporting to waste paper recycling plants in the Mainland. Apart from funding recyclers to raise the quality of waste paper recyclables through the Recycling Fund, the EPD, through the Hong Kong Economic and Trade Offices and the Trade Development Council, also assists local waste paper recyclers to keep abreast of trade laws of various markets as well as market information of recyclables, and to establish business networks, thereby exploring other possible export markets for local recyclables and identifying more stable and diverse outlets. In parallel, we are committed to incubating local manufacturing industry using recycled materials to enhance its capability of absorbing locally generated recyclables in the local market. In early December 2018, the EPD awarded a lease for developing a local waste paper recycling and manufacturing plant in the EcoPark through open tendering. The plant, which is expected to be put into operation in 2022-23, will have an annual processing capability of 300 000 tonnes, accounting for about one-third of the local waste paper recovered per year.

d) The EPD has been striving to encourage the public and various sectors to reduce the use of disposable plastic tableware through publicity and education efforts, thereby raising public awareness about environmental protection. In the summer of 2018, we organised the “Plastic Free Beach, Tableware First” campaign at public beaches across the territory. A total of 51 restaurants and kiosks participated and used bamboo sticks, paper straws and paper bags in place of disposable plastic tableware (including polyfoam food containers) to promote the “plastic-free” culture to the public.

The Government has provided the catering sector with guidelines to encourage restaurants to provide reusable tableware and food containers for dine-in customers, avoid using polyfoam food containers, welcome customers to bring their own food containers for buying take-away food, etc. Under the Sustainable Development Fund, the Government has previously supported the food and beverage sector to formulate guidelines on green procurement for the trade, including encouraging the commercial and industrial sectors to use reusable or plant-fibre tableware instead of disposable plastic ones. Through the annual Hong Kong Awards for Environmental Excellence, the EPD also commends organisations that have excelled in environmental management, including restaurants committed to waste reduction at source (such as taking measures to encourage customers not to ask for disposable tableware and food containers).

In addition, the ECC and the EPD have collaborated with the food and beverage sector to jointly hold the “Plastic-Free Takeaway, Use Reusable Tableware” campaign to encourage

members of the public to go “plastic-and-disposable-free” and reduce the use of disposable plastic tableware when they order takeaways by providing suitable incentives. The first phase of the campaign - a two-month pilot programme at 3 major fast food chains in Hong Kong - concluded successfully on 15 January this year. During the pilot programme, members of the public together reduced waste and saved more than 1.2 million sets of disposable tableware. We are working on the next phase of the publicity and education campaign with a view to further promoting the “plastic-and-disposable-free” message to members of the public.

Starting from January 2019, the Government has taken the lead in banning plastic straws and polyfoam food containers in premises and canteens mainly serving government staff. Relevant departments, when inviting tenders for new contracts and renewing existing contracts, will also require restaurant operators in suitable government venues to avoid using disposable plastic tableware. We are also conducting a study on the feasibility, scope and mechanism of controlling or banning the use of disposable plastic tableware. The EPD will consider possible control measures for disposable plastic tableware in Hong Kong in the long run, including the scope and means of control or ban, the applicable substitutes and the appropriate regulatory mechanism. The study is scheduled for completion in 2020.

- End -

CONTROLLING OFFICER'S REPLY

ENB103

(Question Serial No. 1643)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Administration has been launching different schemes to develop local recycling industry, including setting up of the Recycling Fund, the EcoPark in Tuen Mun and leasing out lands to recyclers. In this connection, would the Government advise this Committee on the following:

- ai) What were the number of applications received by the Recycling Fund and the numbers of applications approved and rejected by the Administration in the past 3 financial years?
 - ii) Of the applications rejected by the Administration, please give a brief account of the reasons for rejection and the number of applications involved.
 - iii) Of the applications approved by the Administration, what were the median amount of funding applied for and the median amount of funding actually granted by the Administration?
 - iv) What was the total quantity of recyclables processed by the recyclers who were funded by the Recycling Fund in the past 3 financial years? What was the quantity of recyclables for export or local use?
- b) What were the occupancy and vacancy status as well as the quantities of recyclables processed (including waste cooking oil, waste metals, waste wood, waste electrical and electronic equipment, waste plastics, construction waste, waste glass, food waste and waste rubber tyres) in the EcoPark in Tuen Mun in the past year?
- c) What were the number and area of sites leased out for recycling use and the types and quantities of recyclables processed in these sites in each of the past 5 years?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 5)

Reply:

(a)

(i) The Recycling Fund has been open for applications since October 2015. As at 28 February 2019, the Advisory Committee on Recycling Fund (RFAC) has received 525 applications, of which 220 approved, 73 rejected, 156 withdrawn by the applicant organisations of their own accord before vetting and 76 being processed.

(ii) All applications were considered by the RFAC with reference to a set of published vetting criteria. The reasons for applications not approved are as follows:

Reasons for rejection	Number of cases involved
The project or company information submitted by the applicant was incomplete	21
The project content was not within the coverage of the Fund	16
The project did not show that it could reduce disposal at landfills	15
The applicant did not meet the application eligibility	11
The project was not practicable	11
The applicant failed to prove his/her ability in implementing the project	8
The project was not financially viable/sustainable	5
The project was not cost-effective	5

Note: Each rejected project may involve one or more reasons for rejection.

(iii) As at 28 February 2019, among the 220 approved projects, excluding the projects which have been withdrawn by some applicant organisations after their applications were approved, a total of 175 funded projects have been or will soon be commenced, involving a total funding of more than \$130 million, of which 26 are under the Enterprise Support Programme (ESP), 139 are for Standard Projects and 10 are under the Industry Support Programme (ISP). The median amount of funding applied and the actual median amount of funding approved for the various projects are set out in the table below.

	ESP	Standard Projects	ISP
The median amount of funding applied*	\$2,842,400	\$127,200	\$2,667,200
The median amount of funding approved *	\$2,297,000	\$121,500	\$2,622,800

* The figures are rounded to the nearest hundred.

(iv) As at 28 February 2019, a total of 142 000 tonnes of recyclables have been processed by the projects approved under the Recycling Fund for export or local use. There is no separate breakdown on the recyclables for export and local use.

(b) At present, a total of 12 lots in the EcoPark have been leased to private recyclers. Among them, 9 tenants engaged in the recycling of waste cooking oil, waste metals, waste wood, waste electrical and electronic equipment (WEEE), waste plastics, construction waste, waste glass, food waste and waste rubber tyres have progressively commenced plant operation. 3 other tenants engaged in the recycling of waste batteries, waste plastics and waste paper are undergoing or preparing for plant construction. In addition, a lot of about 3 hectares in the EcoPark has been allocated for the development of the Waste Electrical

and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK). The facility has already come into operation since March 2018. A lot of about 0.4 hectares in the EcoPark to be put up for tender has been temporarily allocated for handling tree waste generated in the aftermath of typhoon Mangkhut.

The quantities of recyclables processed at the EcoPark in 2018 by type of recyclables are as follows:

Type of recyclables	Quantity of recyclables processed (tonnes)
Waste cooking oil	4 700
Waste Metals	173 700
Waste Wood	2 600
WEEE	12 700
Waste plastics	1 500
Construction waste	11 700
Waste glass	1 400
Food waste	4 300
Waste rubber tyres	500
Total**	213 000

** The total quantities are rounded to the nearest thousand.

(c) Apart from the lots leased through long-term tenancies in the EcoPark, the Government has been allocating suitable land through short-term tenancy (STT) for exclusive bidding by the recycling industry to operate recovery and recycling businesses. There were 32 STT sites granted by the Government and dedicated to the recycling industry over the past 5 years, occupying a total area of 4.8 hectares. The site areas ranged from about 70 square metres to 5 000 square metres. The sites mainly involve treatment of recyclables such as waste paper, metals, wood, plastics and tyres, etc. The quantities of recyclables processed on these sites by year are set out in the table below.

Quantities of recyclables processed on STT sites by year

Year	Annual quantity of recyclables processed (tonnes)
2014	No relevant data
2015	426 106
2016	495 806
2017	402 407
2018	337 418

- End -

CONTROLLING OFFICER'S REPLY**ENB104****(Question Serial No. 1649)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the Administration's promotion of the use of electric vehicles (EVs), would the Government advise this Committee on the following:

- a) What were the numbers of electric private cars and electric commercial vehicles in the past 3 years?
- b) Please list the numbers of quick, medium and standard EV charging facilities in the 18 districts of Hong Kong in the past 3 years (with a breakdown by government land and private land). In addition, what were the numbers of quick or medium charging facilities converted from standard charging facilities? What were the costs for constructing or converting the charging equipment on government lands and the costs for maintaining such equipment?
- c) Is there any plan to further expand the charging network, such as addition of lease conditions to encourage owners to construct charging facilities? If yes, what are the details?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 9)Reply:

- a) The numbers of registered electric private cars (e-PCs) and electric commercial vehicles (e-CVs) in the past 3 years (as at 31 December each year) are as follows:

Year	No. of vehicles registered with Transport Department (TD)	
	e-PCs	e-CVs
2016	6 829	215
2017	10 666	239
2018	11 080	248

Note: Government vehicles are not included in the numbers as they are not required for registration.

b) The numbers of public electric vehicle (EV) chargers (including government and non-government) provided in the 18 districts of Hong Kong as at the end of 2016 are as follows:

District	No. of chargers					
	Standard		Medium		Quick	
	Government	Non-government	Government	Non-government	Government	Non-government
Central & Western	155	9	31	11	0	19
Eastern	85	41	17	17	0	17
Southern	0	4	0	7	0	16
Wan Chai	30	37	12	18	0	10
Kowloon City	51	3	0	2	0	14
Kwun Tong	18	44	4	38	0	23
Sham Shui Po	33	10	6	14	0	4
Wong Tai Sin	35	20	5	7	0	9
Yau Tsim Mong	40	60	6	42	0	23
Kwai Tsing	0	17	0	13	0	7
Tsuen Wan	30	14	5	7	0	10
Sai Kung	20	18	6	5	0	8
North	15	20	6	4	0	3
Tai Po	0	3	0	3	0	8
Sha Tin	44	35	6	6	0	24
Yuen Long	3	37	2	9	0	9
Tuen Mun	0	10	0	13	0	9
Islands	0	13	0	23	0	6
Total:	559	395	106	239	0	219
Total:	954		345		219	
	1518					

The numbers of public EV chargers (including government and non-government) provided in the 18 districts of Hong Kong as at the end of 2017 are as follows:

District	No. of chargers					
	Standard		Medium		Quick	
	Government	Non-government	Government	Non-government	Government	Non-government
Central & Western	84	9	61	14	0	24
Eastern	20	17	41	27	0	32

Southern	0	4	0	17	0	19
Wan Chai	36	48	47	44	0	20
Kowloon City	62	3	0	2	0	18
Kwun Tong	13	201	4	36	0	41
Sham Shui Po	9	8	32	14	0	4
Wong Tai Sin	5	19	35	11	0	9
Yau Tsim Mong	40	60	6	52	0	28
Kwai Tsing	0	16	0	9	0	25
Tsuen Wan	7	9	33	7	0	7
Sai Kung	20	18	6	8	0	16
North	15	20	6	10	0	6
Tai Po	25	3	0	3	0	8
Sha Tin	56	34	6	29	0	32
Yuen Long	9	37	2	9	0	14
Tuen Mun	0	10	0	8	0	14
Islands	0	14	0	26	0	9
Total:	401	530	279	326	0	326
Total:	931		605		326	
	1862					

The numbers of public EV chargers (including government and non-government) provided in the 18 districts of Hong Kong as at the end of 2018 are as follows:

District	No. of chargers					
	Standard		Medium		Quick	
	Government	Non-government	Government	Non-government	Government	Non-government
Central & Western	52	10	93	17	0	36
Eastern	11	17	50	13	0	52
Southern	0	4	0	11	0	27
Wan Chai	18	49	65	52	0	35
Kowloon City	61	3	0	1	0	15
Kwun Tong	13	201	4	77	0	42
Sham Shui Po	9	6	32	10	0	37
Wong Tai Sin	5	19	35	11	0	9
Yau Tsim Mong	40	61	6	36	0	50
Kwai Tsing	9	16	0	9	0	33

Tsuen Wan	7	10	33	13	0	9
Sai Kung	6	18	20	11	0	25
North	6	18	15	10	0	12
Tai Po	25	3	0	3	0	7
Sha Tin	43	34	20	24	0	47
Yuen Long	9	37	2	31	0	18
Tuen Mun	0	10	0	10	0	17
Islands	0	14	89	21	4	23
Total:	314	530	464	360	4	494
Total:	844		824		498	
	2166					

To improve the charging efficiency, the Government has progressively upgraded 370 standard chargers at car parks managed by the TD and the Government Property Agency (GPA) which are open for public use to medium chargers in the past few years (as compared with standard chargers, medium chargers can reduce the charging time by up to 60%). As at the end of 2018, the Environmental Protection Department (EPD) has installed 519 chargers, among which 364 are medium chargers, at 425 parking spaces (accounting for 7% of the parking spaces) at those government car parks managed by the TD and the GPA which are open for public use. The details of and expenditure on the enhancement of public charging facilities at the above car parks in the past 3 years are as follows:

Year	No. of public EV charging facilities enhanced	Expenditure (\$m)
2016-17	174 standard chargers upgraded to medium chargers and installation of 5 medium charging posts at outdoor car parks	2.94
2017-18	96 standard chargers upgraded to medium chargers	1.32
2018-19	**	**

** The EPD completed the work for upgrading the standard chargers provided at the car parks of the TD and the GPA which are open for public use to medium chargers in February 2018. Apart from 61 chargers located at the TD car parks which will be demolished and 94 chargers which have both standard and medium charging functions, standard chargers at the car parks of the TD and the GPA that are open for public use have all been upgraded to medium chargers.

The electricity cost of chargers at government car parks borne by the Government and the expenditure on maintenance of chargers in the past 3 years are as follows:

Year	Electricity cost of chargers (\$)	Expenditure on maintenance of chargers (\$)
2016-17	885,189	53,834

2017-18	1,034,830	60,662
2018-19 (as at February 2019)	926,234	70,792

c) The Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the TD, the GPA and the Leisure and Cultural Services Department which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. We will also identify suitable on-street parking spaces to install EV chargers on a trial basis and explore suitable locations to set up pilot quick charging stations for EVs.

In addition, the Government will also explore practicable measures to encourage installation of EV charging-enabling infrastructure or chargers in existing private buildings.

- End -

CONTROLLING OFFICER'S REPLY

ENB105

(Question Serial No. 1650)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Apart from being affected by local emissions, the local air quality will also be affected by industrial activities in neighbouring regions. Regarding the collaboration with neighbouring regions, would the Administration advise this Committee on the following:

- a) Currently, have Hong Kong and the neighbouring regions in the Mainland set any emission reduction target? If yes, what are the emission reduction targets for various pollutants (including sulphur dioxide, nitrogen oxides, carbon monoxide, ozone and photochemical oxidants, respirable suspended particulates and fine suspended particulates as well as hydrocarbons), and the actual situation of emission reduction?
- b) Currently, have the two places established an air quality notification mechanism, requiring the relevant regions to notify Hong Kong when the air quality is below standard, so as to keep the public informed of the air quality information as early as possible? If yes, what are the staff establishment and expenditure for the mechanism?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 10)

Reply:

a) The HKSAR Government and Guangdong Provincial Government have been striving to reduce emissions from major sources, including power plants, vehicles and industries, etc., in the Pearl River Delta (PRD) region since 2002. In 2012, the Hong Kong and Guangdong governments endorsed a set of 2015 emission reduction targets and 2020 emission reduction ranges of 4 major air pollutants (i.e. sulphur dioxide (SO₂), nitrogen oxides (NO_x), respirable suspended particulates (RSP) and volatile organic compounds (VOC)) for Hong Kong and the PRD Economic Zone, adopting 2010 as the base year.

Both Hong Kong and Guangdong jointly released the results of the mid-term review on air pollutant emission reduction targets in the PRD region in December 2017, confirming that both sides had achieved their respective 2015 emission reduction targets and finalised the reduction targets for 2020. The details are as follows:

Pollutant	Region ^{Note1}	2015 Emission ^{Note2} reduction target	Actual emission ^{Note2} reduction in 2015 (according to the 2015 Emission Inventory Report)	2020 Emission reduction ^{Note2} target
SO ₂	Hong Kong (HK)	-25%	-45%	-55%
	PRD Economic Zone	-16%	-25%	-28%
NO _x	HK	-10%	-14%	-20%
	PRD Economic Zone	-18%	-22%	-25%
RSP	HK	-10%	-20%	-25%
	PRD Economic Zone	-10%	-14%	-17%
VOC	HK	-5%	-14%	-15%
	PRD Economic Zone	-10%	-11%	-20%

Note 1: The PRD Economic Zone includes Guangzhou, Shenzhen, Zhuhai, Dongguan, Zhongshan, Foshan, Jiangmen, Huizhou and Zhaoqing

Note 2: Reductions are relative to 2010 emission levels.

The HKSAR Government and Guangdong Provincial Government are continuing to implement the control measures under the Pearl River Delta Regional Air Quality Management Plan to meet the above emission reduction targets for 2020. The key emission reduction measures implemented by Hong Kong include: requiring power plants to increase the use of natural gas in electricity generation; progressively tightening emission caps for power plants; tightening vehicle emission standards for newly registered vehicles to Euro VI; continuing to phase out pre-Euro IV diesel commercial vehicles; and collaborating with the Guangdong Provincial Government on the implementation of ambient pollution control on vessels, etc.

The key emission reduction measures implemented by Guangdong include: various enhancement measures on air pollution prevention and control such as controlling the pollutant emissions of coal-fired thermal power plants; advancing the implementation of National VI emission standards for motor vehicles in the PRD; promoting the use of electric buses and other new energy vehicles; introducing remedial measures to tackle pollution caused by diesel goods vehicles; upgrading the emission control standards for vessels; promoting pollution prevention and control for non-road mobile machinery; enhancing

VOC pollution prevention and control; enhancing management of construction sites and transportation dust as well as total prohibition of open burning, etc.

Apart from these, to further improve the regional air quality, Hong Kong and Guangdong have launched a study on post-2020 regional air pollutant emission reduction targets and concentration levels for Hong Kong and Guangdong, in which emission reduction plan beyond 2020 will be formulated.

b) Currently, both Hong Kong and Guangdong have set up a real-time system for online publishing of air quality data so that the relevant government departments and members of the public of the two places can obtain through the system the latest information on the air pollution situation and the prevention measures that should be adopted when the air pollution is serious in the two places. As such, the two places have not set up a separate notification mechanism for serious air pollution.

- End -

CONTROLLING OFFICER'S REPLY

ENB106

(Question Serial No. 3268)

Head: (44) Environmental Protection Department

Subhead (No. & title): (700) General non-recurrent

Programme: (6) Nature Conservation

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in the Budget that the Countryside Conservation Office will launch a funding scheme in 2019 to support non-governmental organisations to interact and co-operate with villagers in organising diverse and innovative conservation activities and revitalisation projects. In this connection, would the Government advise this Committee on the following:

- a) What are the estimated staff establishment and expenditure for the scheme?
- b) Have any promotional activities been commenced at this stage? If yes, what are the details, staff establishment and expenditure for the promotional activities?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 11)

Reply:

a. Established in late July 2018, the Countryside Conservation Office (CCO) is expected to comprise 25 officers from various grades to take forward the relevant conservation and revitalisation efforts as well as minor improvement works with the \$1 billion earmarked by the Government. The CCO plans to launch a Countryside Conservation Funding Scheme (CCFS) with half of the \$1 billion (i.e. \$500 million) under a non-recurrent account and accept applications in the third quarter of 2019 to support non-governmental organisations (NGOs) to interact and co-operate with villagers. For instance, the long-term conservation and revitalisation of certain areas including private land may be funded by an approach similar to the current Nature Conservation Management Agreement Scheme under the Environment and Conservation Fund. The Advisory Committee on Countryside Conservation (ACCC), which will soon be established, will examine applications on conservation and revitalisation projects (excluding minor improvement works) submitted by NGOs, and monitor the implementation of approved projects and proposals. The CCO also plans to spend the remaining \$500 million on suitable minor improvement works and rehabilitation of the existing architectural environment in the countryside.

Besides performing daily administrative duties, the 8 administrative and clerical staff in the CCO will also provide secretariat services for the ACCC and assist in the handling of

applications on conservation and revitalisation projects submitted by NGOs. As the above-mentioned work is part of the countryside conservation duties of the CCO, we are unable to break down the estimates involved for the CCFS.

b. Before launching the CCFS in the third quarter of 2019, the CCO plans to set up a website to provide detailed information on the application for the CCFS and promote the funding scheme. It will also arrange briefing sessions for NGOs to introduce the application procedures and details of the CCFS. The CCO may, depending on the circumstances, invite proponents who are currently carrying out projects under the Nature Conservation Management Agreement Scheme to share their experience, with a view to promoting and facilitating applications for the CCFS. As the above-mentioned work is part of the duties of the CCO, we are unable to break down the manpower and estimated expenditure involved in the promotion of the CCFS.

- End -

CONTROLLING OFFICER'S REPLY

ENB107

(Question Serial No. 2495)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the air quality of covered public transport interchanges (PTIs) across the territory, would the Government advise this Committee on the following:

(a) The comparison of air quality of various covered PTIs with the current Air Quality Objectives (AQOs) of Hong Kong in the past 5 years. If the values of the former exceeded the AQOs, what measures has the Administration taken over the years? If the relevant data is not available, what are the reasons?

(b) The air quality guidelines adopted in the Practice Note for Professional Persons - Control of Air Pollution in Semi-Confined Public Transport Interchanges (Practice Note) are formulated according to the AQOs of Hong Kong in 1987. The Environmental Protection Department has significantly updated the AQOs in 2014, and the second review on the AQOs is nearly completed, but the guidelines in the Practice Note have not yet been updated. The Government stated earlier that it would work with relevant departments to review the air quality guidelines in the Practice Note. What are the latest developments of such review? Have the relevant departments set any timetable for updating the air quality guidelines in the Practice Note? If no timetable has been set, what are the reasons? Is there any other ways for the Administration to improve the air quality of PTIs so as to safeguard the short-term health of members of the public who are waiting for transport?

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 6)

Reply:

(a) In general, the public only need to stay in the public transport interchanges (PTIs) for a short time. As such, the Practice Note for Professional Persons - Control of Air Pollution in Semi-Confined Public Transport Interchanges (Practice Note) formulated by the Environmental Protection Department (EPD) only provides short-term (1-hour or less than 1-hour average) air quality guidelines for those air pollutants which may constitute health impacts with short exposure, including the short-term average concentrations of carbon monoxide (CO), nitrogen dioxide (NO₂) and sulphur dioxide (SO₂). Long-term standards (such as 24-hour standard for suspended particulates) of the Hong Kong Air Quality

Objectives (HKAQOs) are not applicable for assessing the air quality of semi-confined PTIs.

The Transport Department (TD) engages the Electrical and Mechanical Services Department (EMSD) to conduct air quality measurements in semi-confined PTIs managed by the TD at an interval of about 2 years. The air quality measurements in the PTIs are conducted in accordance with the guidelines set out in the Practice Note formulated by the EPD to collect concentration data of CO, NO₂ and SO₂. In the past 5 years, a total of about 250 air quality measurements were conducted in 64 PTIs, and the total expenditure (including expenditures on manpower and operating equipment) involved was about \$10.5 million. The findings of the latest measurements conducted in each of the PTIs are tabulated in the Annex. While there were a few records of non-compliance of the 1-hour average concentration of NO₂ at individual PTIs, findings of the measurements conducted in all PTIs generally complied with the guidelines set out in the prevailing Practice Note.

Regarding those PTIs with non-compliance of the 1-hour average concentration of NO₂, the TD has been working with the EMSD and public transport operators in implementing a series of improvement measures, including arranging to extend the operating hours of the ventilation systems, increasing air volume, replacing/cleaning the ventilation system components, strengthening the management of switching off idling engines in PTIs, and requiring the bus companies to deploy buses with greener models. The Government will continue to closely monitor the air quality of PTIs.

(b) The EPD, together with the relevant government departments, set up an inter-departmental Task Force in mid-2018 to conduct a review of the Practice Note. The Task Force will take into consideration factors like the relevant air quality standards, views of the departments and experts and the actual operational needs of PTIs, etc., with a view to updating the content of the Practice Note. The Task Force is currently in the process of drafting the revised Practice Note as well as establishing the timetable for the review process.

Findings of the latest air quality measurements conducted in PTIs managed by TD

Location	Measurement Date (Month/Year)	The Highest 1-hour Average Concentration		
		NO ₂ (µg/m ³) Objective: 300 µg/m ³	SO ₂ (µg/m ³) Objective: 800 µg/m ³	CO (µg/m ³) Objective: 30 000 µg/m ³
Hong Kong Island				
Admiralty Station (East) Bus Terminus	1/2017	246	19	1 072
Central (Exchange Square) Bus Terminus – Bus	10/2016	241	21	350
Central (Exchange Square) Bus Terminus - GMB	10/2016	111	79	2 202
Central (Hong Kong Station) PTI - GMB	9/2017	96	31	14 804
Central (Hong Kong Station) PTI - Bus	9/2017	184	39	813
Cyberport PTI	5/2018	234	68	1 580
Sai Wan Ho (Grand Promenade) PTI	7/2018	245	13	1 140
Shau Kei Wan Station PTI	3/2018	69	9	2 403
Shum Wan Road Public Transport Terminus	7/2017	168	18	718
Siu Sai Wan (Island Resort) PTI - Bus	11/2018	286	59	1 282
Siu Sai Wan (Island Resort) PTI - Taxi	11/2018	99	19	5 209
South Horizons PTI [#]	2/2018	197	— [#]	1 792
The Peak Public Transport Terminus	10/2018	182	39	1 031
Tin Hau Station PTI	1/2017	287	33	2 854
Tin Wan PTI	8/2018	122	42	2 000
Kowloon				
Cheung Sha Wan Plaza PTI	2/2017	288	18	2 642
Diamond Hill Station PTI - Bus	3/2018	383	46	2 528
Diamond Hill Station PTI - Taxi	3/2018	190	45	3 028
Island Harbourview PTI - Point A	8/2017	109	22	1 990
Island Harbourview PTI - Point B	8/2017	106	28	4 828
Kau Wa Keng PTI (Lai Chi)	7/2018	163	42	1 868

Location	Measurement Date (Month/Year)	The Highest 1-hour Average Concentration		
		NO ₂ (µg/m ³) Objective: 300 µg/m ³	SO ₂ (µg/m ³) Objective: 800 µg/m ³	CO (µg/m ³) Objective: 30 000 µg/m ³
Kok Bus Terminus)				
Kowloon Bay PTI	11/2018	156	21	3 873
Kowloon Station PTI - Bus*	2/2016	235	40	1 047
Kowloon Station PTI - GMB*	2/2016	86	13	8 351
Kowloon Tong (Festival Walk) PTI	5/2017	197	28	6 097
Kowloon Tong (Suffolk Road) PTI	8/2016	169	93	562
Lam Tin Station PTI	3/2018	482	52	1 262
Laguna City PTI	5/2017	127	17	456
Laguna Verde PTT	12/2018	166	16	1 325
Langham Place Public Light Bus Terminus	4/2017	146	41	29 741
Lok Fu Bus Terminus	8/2016	288	37	1 186
Olympic Station PTI	1/2018	173	32	747
Park Avenue PTI*	5/2016	235	20	1 295
Ping Shek PTI - Bus	8/2018	559	30	1 806
Ping Shek PTI - GMB	6/2017	198	29	7 256
Tsim Sha Tsui East Bus Terminus (Concordia Plaza)	1/2017	257	14	950
Tsim Sha Tsui East (Mody Road) Bus Terminus	11/2018	236	20	1 320
Whampoa Garden PTI - Bus	6/2018	327	40	1 389
Whampoa Garden PTI - GMB	6/2018	327	40	1 389
Yen Chow Street PTI	8/2018	201	45	547
New Territories				
Bayshore Towers PTI	9/2017	127	15	2 760
Bayview Garden Bus Terminus	5/2018	335	44	853
Discovery Park PTI	7/2018	240	19	976
Hang Hau Station PTI	3/2017	230	13	7 401
Kwai Fong Station Bus Terminus	2/2019	687	56	1 395
Kwai Hing Station Bus Terminus	8/2017	180	39	4 171
Kwai Shing (East) Bus Terminus	9/2018	228	35	1 188
Luen Wo Hui Public Transport Terminus	5/2018	182	28	1 198
Lung Mun Oasis Bus	6/2017	280	23	1 057

Location	Measurement Date (Month/Year)	The Highest 1-hour Average Concentration		
		NO ₂ (µg/m ³) Objective: 300 µg/m ³	SO ₂ (µg/m ³) Objective: 800 µg/m ³	CO (µg/m ³) Objective: 30 000 µg/m ³
Terminus				
Ma On Shan Town Centre Public Transport Terminus	9/2018	290	24	1 760
Nina Tower Bus Terminus	5/2017	268	32	982
Po Lam PTI	12/2016	130	13	2 698
Sai Lau Kok PTI	4/2017	110	41	8 317
Sam Shing Bus Terminus	8/2018	184	17	2 559
Sha Tin Central Bus Terminus	1/2019	412	31	1 936
Sheung Shui Bus Terminus	10/2018	528	55	2 930
Sheung Tak Public Transport Terminus	3/2018	266	41	602
Tai Po Market Station Bus Terminus	5/2017	246	16	390
Tai Wai Station PTI - Bus	2/2017	260	13	1 765
Tai Wai Station PTI - GMB	2/2017	211	7	1 798
Tin Shui Wai Town Centre PTI	9/2018	134	20	732
Tiu Keng Leng Station PTI - Bus	4/2018	231	194	3 610
Tiu Keng Leng Station PTI - Shuttle Bus	5/2018	410	135	2 768
Tsuen Wan Station PTI	11/2018	198	51	668
Tsuen Wan West Station PTI	3/2017	269	23	844
Tseung Kwan O Station PTI	6/2018	231	69	1 164
Tsui Lam Bus Terminus	12/2018	95	14	1 574
Tuen Mun Central Bus Terminus	7/2017	122	54	1 142
Tuen Mun Pierhead Bus Terminus	9/2018	208	29	2 363
Tuen Mun Station PTI - Taxi	7/2017	234	25	4 758
Tuen Mun Station PTI - Bus	7/2017	84	27	833
Tung Chung Station Bus Terminus	11/2018	261	59	1 153
Yuen Long Station (North) PTI	9/2018	117	12	1 003
Vision City Public Light Bus Terminus	12/2018	147	8	9 648
Wu Kai Sha Station PTI - Bus	1/2018	245	32	508

Location	Measurement Date (Month/Year)	The Highest 1-hour Average Concentration		
		NO ₂ (µg/m ³) Objective: 300 µg/m ³	SO ₂ (µg/m ³) Objective: 800 µg/m ³	CO (µg/m ³) Objective: 30 000 µg/m ³
Wu Kai Sha Station PTI - GMB	2/2018	239	40	1 068

Note:

No measurement for the concentration of SO₂.

* Due to ventilation system fault, air quality measurements for Kowloon Station PTI and Park Avenue PTI were suspended in 2018. The air quality measurements for the PTIs will resume in 2019.

- End -

CONTROLLING OFFICER'S REPLY**ENB108****(Question Serial No. 2496)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding roadside air quality, would the Administration advise this Committee on the following:

(a) Please set out, according to the types in the table, the number of various types of first registered vehicles in Hong Kong respectively in each of the past 5 years:

Vehicle type	Exhaust emission standard	Number of first registered vehicles				
		2014	2015	2016	2017	2018
Petrol private car	Euro III or before					
	Euro IV					
	Euro V					
	Euro VI					
	Electric vehicle (EV)					
	Sub-total					
Diesel private car	(same as the above categories)					
Taxi						
Motorcycle						
Public light bus						
Private light bus						
Light goods vehicle						
Medium goods vehicle						
Heavy goods vehicle						
Non-franchised public bus						
Private light bus						

(b) Please set out, according to the types in the table, the number, age, overall pollutant emissions and percentage contribution of various emissions in the overall air pollutant emissions of each vehicle type in Hong Kong respectively in each of the past 5 years (if the latest data of 2018 is not available, please set out the data of the most recent 5 years):

Vehicle type	Exhaust emission standard	Number of registered vehicles				
		2014	2015	2016	2017	2018
Petrol private car	Euro I					
	Euro II					
	Euro III or before					
	Euro IV					
	Euro V					
	Euro VI					
	Electric vehicle (EV)					
	Sub-total					
	Average age					
Diesel private car	(same as the above categories)					
Taxi						
Motorcycle						
Public light bus						
Private light bus						
Light goods vehicle						
Medium goods vehicle						
Heavy goods vehicle						
Non-franchised public bus						
Private light bus						

Vehicle type	Exhaust emission standard	Air pollutant emissions									
		Respirable suspended particulates (RSP) PM ₁₀ (tonnes/percentage in overall air pollutant emissions in Hong Kong)									
		2014		2015		2016		2017		2018	
		Tonnes	Percentage	Tonnes	percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Petrol private car	Euro I										
	Euro II										
	Euro III										
	Euro IV										
	Euro V										
	Euro VI										
Diesel private car	(same as the above categories)										
Taxi											
Motorcycle											
Public light bus											
Private light bus											
Light goods vehicle											
Medium goods vehicle											
Heavy goods vehicle											
Non-franchised public bus											
Private light bus											

Vehicle type	Exhaust emission standard	Air pollutant emissions									
		Fine suspended particulates (FSP) PM _{2.5} (tonnes/percentage in overall air pollutant emissions in Hong Kong)									
		2014		2015		2016		2017		2018	
		Tonnes	Percentage	Tonnes	percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Petrol private car	Euro I										
	Euro II										
	Euro III										
	Euro IV										
	Euro V										
	Euro VI										
Diesel private car	(same as the above categories)										
Taxi											
Motorcycle											
Public light bus											
Private light bus											
Light goods vehicle											
Medium goods vehicle											
Heavy goods vehicle											
Non-franchised public bus											
Private light bus											

Vehicle type	Exhaust emission standard	Air pollutant emissions									
		Sulphur dioxide (SO ₂) (tonnes/percentage in overall air pollutant emissions in Hong Kong)									
		2014		2015		2016		2017		2018	
		Tonnes	Percentage	Tonnes	percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Petrol private car	Euro I										
	Euro II										
	Euro III										
	Euro IV										
	Euro V										
	Euro VI										
Diesel private car	(same as the above categories)										
Taxi											
Motorcycle											
Public light bus											
Private light bus											
Light goods vehicle											
Medium goods vehicle											
Heavy goods vehicle											
Non-franchised public bus											
Private light bus											

Vehicle type	Exhaust emission standard	Air pollutant emissions									
		Nitrogen oxides (NOx) (tonnes/percentage in overall air pollutant emissions in Hong Kong)									
		2014		2015		2016		2017		2018	
		Tonnes	Percentage	Tonnes	percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Petrol private car	Euro I										
	Euro II										
	Euro III										
	Euro IV										
	Euro V										
	Euro VI										
Diesel private car	(same as the above categories)										
Taxi											
Motorcycle											
Public light bus											
Private light bus											
Light goods vehicle											
Medium goods vehicle											
Heavy goods vehicle											
Non-franchised public bus											
Private light bus											

Vehicle type	Exhaust emission standard	Air pollutant emissions									
		Volatile organic compounds (VOC) (tonnes/percentage in overall air pollutant emissions in Hong Kong)									
		2014		2015		2016		2017		2018	
		Tonnes	Percentage	Tonnes	percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Petrol private car	Euro I										
	Euro II										
	Euro III										
	Euro IV										
	Euro V										
	Euro VI										
Diesel private car	(same as the above categories)										
Taxi											
Motorcycle											
Public light bus											
Private light bus											
Light goods vehicle											
Medium goods vehicle											
Heavy goods vehicle											
Non-franchised public bus											
Private light bus											

Vehicle type	Exhaust emission standard	Air pollutant emissions									
		Carbon monoxide (CO) (tonnes/percentage in overall air pollutant emissions in Hong Kong)									
		2014		2015		2016		2017		2018	
		Tonnes	Percentage	Tonnes	percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Petrol private car	Euro I										
	Euro II										
	Euro III										
	Euro IV										
	Euro V										
	Euro VI										
Diesel private car	(same as the above categories)										
Taxi											
Motorcycle											
Public light bus											
Private light bus											
Light goods vehicle											
Medium goods vehicle											
Heavy goods vehicle											
Non-franchised public bus											
Private light bus											

Vehicle type	Exhaust emission standard	Air pollutant emissions									
		Ozone (O ₃) (tonnes/percentage in overall air pollutant emissions in Hong Kong)									
		2014		2015		2016		2017		2018	
		Tonnes	Percentage	Tonnes	percentage	Tonnes	Percentage	Tonnes	Percentage	Tonnes	Percentage
Petrol private car	Euro I										
	Euro II										
	Euro III										
	Euro IV										
	Euro V										
	Euro VI										
Diesel private car	(same as the above categories)										
Taxi											
Motorcycle											
Public light bus											
Private light bus											
Light goods vehicle											
Medium goods vehicle											
Heavy goods vehicle											
Non-franchised public bus											
Private light bus											

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 16)

Reply:

(a) The numbers of various types of first registered vehicles in Hong Kong by exhaust emission standard in the past 5 years are tabulated as follows:

Vehicle type	Exhaust emission standard	Number of first registered vehicles				
		2014	2015	2016	2017	2018
Petrol private car	Euro V	44 245	46 122	36 266	17 006	0

Vehicle type	Exhaust emission standard	Number of first registered vehicles				
		2014	2015	2016	2017	2018
	Euro VI	0	0	0	18 530	41 551
	Sub-total	44 245	46 122	36 266	35 536	41 551
Diesel private car	Euro V (Note 1)	1 546	1 593	1 896	4 246	265
	Sub-total	1 546	1 593	1 896	4 246	265
Electric private car	-	845	2 607	3 020	3 860	471
Taxi	Euro V	1 699	2 340	1 821	979	0
	Euro VI	0	0	0	968	1 770
	Electric vehicle	15	0	1	0	0
	Sub-total	1 714	2 340	1 822	1 947	1 770
Motorcycle	Euro III or before	5 126	6 037	5 542	5 801	5 286
	Electric vehicle	8	0	2	2	0
	Sub-total	5 134	6 037	5 544	5 803	5 286
Public light bus	Euro V	92	164	214	222	496
	Electric vehicle	0	0	0	0	0
	Sub-total	92	164	214	222	496
Private light bus	Euro V	437	404	319	269	400
	Euro VI	0	0	0	0	2
	Electric vehicle	0	0	4	1	0
	Sub-total	437	404	323	270	402
Light goods vehicle	Euro V	8 276	8 706	6 726	6 607	1 545
	Euro VI	0	0	0	0	4 816
	Electric vehicle	21	11	11	12	16
	Sub-total	8 297	8 717	6 737	6 619	6 377
Medium goods vehicle	Euro V	4 260	4 729	3 270	3 267	2 551
	Euro VI	0	0	0	0	385
	Electric vehicle	0	0	0	0	0
	Sub-total	4 260	4 729	3 270	3 267	2 936
Heavy goods vehicles	Euro V	714	1 021	791	688	502
	Euro VI	0	0	0	0	50
	Electric vehicle	0	0	0	0	0
	Sub-total	714	1 021	791	688	552
Non-franchised public bus	Euro V	712	737	803	648	575
	Euro VI	0	0	0	0	94
	Electric vehicle	4	3	0	2	0
	Sub-total	716	740	803	650	669

Note 1: The number of vehicles includes Euro V diesel private cars which met the specified requirements under the transitional arrangement and were approved to be first registered after the implementation of new emission standards (1 October 2017). (According to the established practice of tightening the exhaust emission standards of newly registered vehicles in the past, the Environmental Protection Department (EPD) will provide a transitional arrangement under which car dealers can process the Euro V diesel private cars (unsold vehicles) which have arrived in Hong Kong but not yet been first registered before the implementation of new emission standards.)

(b) The numbers and average ages of various types of registered vehicles by exhaust emission standard in the past 5 years are tabulated as follows.

Vehicle type	Exhaust emission standard	Number of registered vehicles				
		2014	2015	2016	2017	2018
Petrol private car	Pre-Euro	10 963	9 097	7 744	6 813	6 326
	Euro I	9 320	6 904	5 105	3 857	3 087
	Euro II	64 961	53 660	42 934	33 431	26 013

Vehicle type	Exhaust emission standard	Number of registered vehicles				
		2014	2015	2016	2017	2018
	Euro III	121 235	114 082	104 941	94 324	83 515
	Euro IV	215 812	214 714	212 658	209 639	205 230
	Euro V	114 190	159 968	195 256	211 617	211 043
	Euro VI	0	0	0	18 280	59 312
	Sub-total	536 481	558 425	568 638	577 961	594 526
	Average age (Note 2)	6	7	7	8	8
Diesel private car	Euro IV or before	2 174	2 132	2 117	2 099	2 075
	Euro V (Note 3)	1 936	3 523	5 418	9 661	9 924
	Sub-total	4 110	5 655	7 532	11 760	11 999
	Average age (Note 2)	9	7	6	5	6
Electric private vehicle	-	1 160	3 806	6 829	10 666	11 080
	Average age (Note 2)	<1	<1	1	1	2
Taxi	Euro III or before	13 070	10 897	9 115	7 258	5 687
	Euro IV	2 447	2 394	2 385	2 332	2 283
	Euro V	2 573	4 839	6 662	7 604	7 458
	Euro VI	0	0	0	968	2 735
	Electric vehicle	48	8	1	1	0
	Sub-total	18 138	18 138	18 163	18 163	18 163
	Average age (Note 2)	10	9	9	8	8
Motorcycle (Note 4)	Pre-Euro	12 855	12 533	12 217	11 904	11 626
	Euro I	22 544	21 663	20 814	19 950	19 072
	Euro III	28 411	34 122	39 256	44 539	49 203
	Electric vehicle	50	50	45	45	19
	Sub-total	63 860	68 368	72 332	76 438	79 920
	Average age (Note 2)	9	9	9	10	10
Public light bus	Pre-Euro	11	0	0	0	0
	Euro I	232	151	5	1	1
	Euro II	1 003	952	901	703	433
	Euro III	2 281	2 262	2 260	2 255	2 039
	Euro IV	655	653	639	626	619
	Euro V	168	332	545	765	1 258
	Euro VI	0	0	0	0	0
	Electric vehicle	0	0	0	0	0
	Sub-total	4 350	4 350	4 350	4 350	4 350
	Average age (Note 2)	10	10	10	10	10
Private light bus	Pre-Euro	195	11	5	1	0
	Euro I	305	204	33	7	0
	Euro II	459	419	333	107	65
	Euro III	252	232	216	193	157
	Euro IV	914	915	914	896	874
	Euro V	892	1 296	1 614	1 883	2 281
	Euro VI	0	0	0	0	2
	Electric vehicle	4	4	7	7	6
	Sub-total	3 021	3 081	3 122	3 094	3 385
	Average age (Note 2)	8	6	6	5	5
Light goods vehicle	Pre-Euro	4 281	142	78	55	46
	Euro I	5 232	2 587	67	29	19
	Euro II	9 177	6 705	3 989	132	86
	Euro III	16 362	15 097	13 606	11 561	7 793
	Euro IV	24 145	24 087	24 011	23 914	23 810
	Euro V	14 614	23 314	30 031	36 609	38 108
	Euro VI	0	0	0	0	4 816
	Electric vehicle	54	65	74	84	94
	Sub-total	73 865	71 997	71 856	72 384	74 772
	Average age (Note 2)	8	7	6	6	6
Medium goods vehicle	Pre-Euro	3 089	31	14	8	1
	Euro I	1 293	653	5	3	2
	Euro II	4 533	3 308	2 096	19	10
	Euro III	8 786	8 162	7 084	5 840	3 750

Vehicle type	Exhaust emission standard	Number of registered vehicles				
		2014	2015	2016	2017	2018
	Euro IV	11 574	11 576	11 564	11 534	11 512
	Euro V	8 252	12 980	16 245	19 499	22 029
	Euro VI	0	0	0	0	385
	Electric vehicle	2	2	2	2	1
	Sub-total	37 529	36 712	37 010	36 905	37 690
	Average age (Note 2)	7	6	6	6	6

Heavy goods vehicle	Pre-Euro	461	5	3	1	0
	Euro I	242	163	0	0	0
	Euro II	645	524	348	4	3
	Euro III	456	428	388	332	215
	Euro IV	1 503	1 503	1 501	1 501	1 500
	Euro V	1 841	2 862	3 651	4 341	4 841
	Euro VI	0	0	0	0	50
	Electric vehicle	0	0	0	0	0
	Sub-total	5 148	5 485	5 891	6 179	6 609
	Average age (Note 2)	5	4	4	4	4
Non-franchised public bus	Pre-Euro	77	3	2	0	0
	Euro I	72	34	2	0	0
	Euro II	415	321	143	46	22
	Euro III	1 982	1 489	987	605	355
	Euro IV	2 868	2 824	2 737	2 592	2 359
	Euro V	1 635	2 367	3 165	3 786	4 293
	Euro VI	0	0	0	0	93
	Electric vehicle	4	7	7	9	8
	Sub-total	7 053	7 045	7 043	7 038	7 130
	Average age (Note 2)	6	5	5	5	5

Note 2: Counting from the dates of first registration of the vehicles.

Note 3: The number of vehicles includes Euro V diesel private cars which met the specified requirements under the transitional arrangement and were approved to be first registered after the implementation of new emission standards (1 October 2017). (According to the established practice of tightening the exhaust emission standards of newly registered vehicles in the past, the EPD will provide a transitional arrangement under which car dealers can process the Euro V diesel private cars (unsold vehicles) which have arrived in Hong Kong but not yet been first registered before the implementation of new emission standards.)

Note 4: The exhaust emission standard for motorcycles was upgraded to Euro III from Euro I on 1 January 2007 in Hong Kong.

The Hong Kong Air Pollutant Emission Inventory is compiled by the EPD every year to analyse the distribution and trend of major emission sources in Hong Kong. The vehicle emission inventory for 2017 is still under compilation. The estimated overall air pollutant emissions and their percentage contribution in the overall air pollutant emissions of various types of vehicles in Hong Kong from 2012 to 2016 are tabulated as follows:

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 5)									
		Respirable suspended particulates (RSP) PM ₁₀ (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	
		tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%
Petrol private car	Pre-Euro	3	0.1%	3	0.0%	2	0.0%	2	0.0%	1	0.0%
	Euro I	1	0.0%	1	0.0%	1	0.0%	1	0.0%	0	0.0%
	Euro II	10	0.2%	8	0.1%	7	0.1%	5	0.1%	4	0.1%
	Euro III	3	0.1%	3	0.0%	3	0.0%	2	0.1%	2	0.1%
	Euro IV	7	0.1%	6	0.1%	6	0.1%	6	0.1%	6	0.1%
	Euro V	1	0.0%	3	0.0%	4	0.1%	6	0.1%	7	0.2%
Diesel private car	Euro IV or before	4	0.1%	3	0.1%	3	0.0%	3	0.1%	3	0.1%
	Euro V	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Taxi (Note 6)	Euro III or before	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Euro IV	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Euro V	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Motorcycle	Pre-Euro	1	0.0%	1	0.0%	1	0.0%	1	0.0%	1	0.0%
	Euro I	6	0.1%	5	0.1%	5	0.1%	4	0.1%	4	0.1%
	Euro III	0	0.0%	0	0.0%	0	0.0%	1	0.0%	1	0.0%
Public light bus	Pre-Euro	2	0.0%	1	0.0%	1	0.0%	0	0.0%	0	0.0%
	Euro I	32	0.6%	27	0.5%	21	0.4%	12	0.3%	0	0.0%
	Euro II	45	0.8%	38	0.6%	36	0.6%	24	0.5%	24	0.5%
	Euro III	23	0.4%	21	0.4%	24	0.4%	10	0.2%	12	0.3%
	Euro IV	1	0.0%	1	0.0%	1	0.0%	1	0.0%	1	0.0%
	Euro V	0	0.0%	0	0.0%	0	0.0%	1	0.0%	1	0.0%
Private light bus	Pre-Euro	2	0.0%	2	0.0%	1	0.0%	0	0.0%	0	0.0%
	Euro I	2	0.0%	2	0.0%	1	0.0%	1	0.0%	0	0.0%
	Euro II	1	0.0%	1	0.0%	1	0.0%	1	0.0%	0	0.0%
	Euro III	1	0.0%	1	0.0%	1	0.0%	0	0.0%	0	0.0%
	Euro IV	2	0.0%	1	0.0%	1	0.0%	1	0.0%	1	0.0%
	Euro V	1	0.0%	1	0.0%	2	0.0%	3	0.1%	3	0.1%
Light goods vehicle	Pre-Euro	64	1.1%	51	0.9%	27	0.5%	0	0.0%	0	0.0%
	Euro I	51	0.9%	44	0.8%	27	0.5%	13	0.3%	0	0.0%
	Euro II	41	0.7%	34	0.6%	27	0.5%	18	0.4%	11	0.3%
	Euro III	24	0.4%	21	0.4%	21	0.4%	17	0.4%	16	0.4%
	Euro IV	24	0.4%	22	0.4%	22	0.4%	22	0.5%	23	0.5%
	Euro V	2	0.0%	6	0.1%	13	0.2%	20	0.4%	26	0.6%
Medium goods vehicle (Note 7)	Pre-Euro	16	0.3%	17	0.3%	10	0.2%	0	0.0%	0	0.0%
	Euro I	4	0.1%	4	0.1%	3	0.1%	2	0.0%	0	0.0%
	Euro II	4	0.1%	5	0.1%	5	0.1%	4	0.1%	2	0.0%
	Euro III	3	0.1%	4	0.1%	5	0.1%	5	0.1%	4	0.1%
	Euro IV	4	0.1%	4	0.1%	4	0.1%	5	0.1%	5	0.1%
	Euro V	1	0.0%	2	0.0%	4	0.1%	6	0.1%	7	0.2%

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 5)									
		Respirable suspended particulates (RSP) PM ₁₀ (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	

Heavy goods vehicle (Note 8)	Pre-Euro	152	2.6%	166	2.9%	92	1.7%	0	0.0%	0	0.0%
	Euro I	43	0.7%	48	0.8%	32	0.6%	15	0.3%	0	0.0%
	Euro II	53	0.9%	61	1.1%	53	1.0%	37	0.8%	21	0.5%
	Euro III	45	0.8%	61	1.0%	66	1.2%	70	1.5%	57	1.3%
	Euro IV	13	0.2%	15	0.3%	19	0.3%	33	0.7%	34	0.8%
	Euro V	2	0.0%	6	0.1%	12	0.2%	21	0.4%	24	0.6%
Non-franchised bus (Note 9)	Pre-Euro	8	0.1%	7	0.1%	6	0.1%	0	0.0%	0	0.0%
	Euro I	2	0.0%	2	0.0%	1	0.0%	1	0.0%	0	0.0%
	Euro II	8	0.1%	5	0.1%	5	0.1%	5	0.1%	3	0.1%
	Euro III	22	0.4%	22	0.4%	18	0.3%	14	0.3%	9	0.2%
	Euro IV	12	0.2%	13	0.2%	14	0.3%	17	0.4%	19	0.4%
	Euro V	1	0.0%	3	0.1%	6	0.1%	7	0.2%	11	0.3%

Note 5: Numbers in tonnes are rounded to the nearest integer.

Note 6: Vehicles using liquefied petroleum gas as fuel hardly emit RSP. Their RSP emissions are generally estimated as "0".

Note 7: Medium goods vehicle refers to goods vehicles with gross vehicle weight of 5.5 tonnes to 15 tonnes.

Note 8: Heavy goods vehicle refers to goods vehicles with gross vehicle weight greater than 15 tonnes.

Note 9: There are no separate emission calculations for non-franchised public and private buses.

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 10)									
		Fine Suspended Particulates (FSP) PM _{2.5} (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	
		tonne	%	tonne	%	tonne	%	tonne	%	tonne	%
Petrol private car	Pre-Euro	3	0.1%	2	0.0%	2	0.0%	1	0.0%	1	0.0%
	Euro I	1	0.0%	1	0.0%	1	0.0%	0	0.0%	0	0.0%
	Euro II	9	0.2%	8	0.2%	6	0.1%	5	0.1%	4	0.1%
	Euro III	3	0.1%	3	0.1%	2	0.1%	2	0.1%	2	0.1%
	Euro IV	6	0.1%	6	0.1%	6	0.1%	5	0.1%	5	0.2%
	Euro V	1	0.0%	3	0.1%	4	0.1%	5	0.1%	7	0.2%
Diesel private car	Euro IV or before	4	0.1%	3	0.1%	2	0.1%	3	0.1%	2	0.1%
	Euro V	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Taxi (Note 11)	Euro III or before	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Euro IV	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Euro V	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Motorcycle	Pre-Euro	1	0.0%	1	0.0%	1	0.0%	0	0.0%	0	0.0%

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 10)									
		Fine Suspended Particulates (FSP) PM _{2.5} (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	
	Euro I	5	0.1%	4	0.1%	3	0.1%	3	0.1%	3	0.1%
	Euro III	0	0.0%	0	0.0%	0	0.0%	1	0.0%	1	0.0%
Public light bus	Pre-Euro	1	0.0%	1	0.0%	1	0.0%	0	0.0%	0	0.0%
	Euro I	30	0.7%	25	0.5%	19	0.4%	11	0.3%	0	0.0%
	Euro II	41	0.9%	35	0.8%	33	0.8%	22	0.6%	22	0.6%
	Euro III	22	0.5%	19	0.4%	22	0.5%	9	0.2%	11	0.3%
	Euro IV	1	0.0%	1	0.0%	1	0.0%	1	0.0%	1	0.0%
	Euro V	0	0.0%	0	0.0%	0	0.0%	1	0.0%	1	0.0%
Private light bus	Pre-Euro	2	0.0%	2	0.0%	1	0.0%	0	0.0%	0	0.0%
	Euro I	2	0.0%	2	0.0%	1	0.0%	1	0.0%	0	0.0%
	Euro II	1	0.0%	1	0.0%	1	0.0%	1	0.0%	0	0.0%
	Euro III	1	0.0%	1	0.0%	1	0.0%	0	0.0%	0	0.0%
	Euro IV	2	0.0%	1	0.0%	1	0.0%	1	0.0%	1	0.0%
	Euro V	1	0.0%	1	0.0%	2	0.0%	2	0.1%	3	0.1%
Light goods vehicle	Pre-Euro	59	1.3%	47	1.0%	25	0.6%	0	0.0%	0	0.0%
	Euro I	47	1.0%	40	0.9%	25	0.6%	12	0.3%	0	0.0%
	Euro II	38	0.8%	32	0.7%	25	0.6%	17	0.5%	10	0.3%
	Euro III	22	0.5%	20	0.4%	19	0.5%	16	0.4%	15	0.4%
	Euro IV	23	0.5%	20	0.4%	20	0.5%	21	0.6%	21	0.6%
	Euro V	2	0.0%	5	0.1%	12	0.3%	18	0.5%	24	0.7%
Medium goods vehicle (Note 12)	Pre-Euro	15	0.3%	16	0.3%	9	0.2%	0	0.0%	0	0.0%
	Euro I	3	0.1%	4	0.1%	3	0.1%	1	0.0%	0	0.0%
	Euro II	4	0.1%	5	0.1%	4	0.1%	3	0.1%	2	0.1%
	Euro III	3	0.1%	4	0.1%	5	0.1%	5	0.1%	4	0.1%
	Euro IV	3	0.1%	4	0.1%	4	0.1%	5	0.1%	4	0.1%
	Euro V	1	0.0%	2	0.0%	3	0.1%	6	0.2%	7	0.2%
Heavy goods vehicle (Note 13)	Pre-Euro	140	3.1%	153	3.4%	85	2.0%	0	0.0%	0	0.0%
	Euro I	40	0.9%	44	1.0%	29	0.7%	14	0.4%	0	0.0%
	Euro II	49	1.1%	57	1.2%	48	1.1%	34	0.9%	19	0.6%
	Euro III	41	0.9%	56	1.2%	61	1.4%	65	1.8%	52	1.5%
	Euro IV	12	0.3%	13	0.3%	17	0.4%	31	0.8%	31	0.9%
	Euro V	2	0.0%	6	0.1%	11	0.3%	19	0.5%	22	0.7%
Non-franchised bus (Note 14)	Pre-Euro	7	0.2%	7	0.1%	6	0.1%	0	0.0%	0	0.0%
	Euro I	2	0.0%	2	0.0%	1	0.0%	1	0.0%	0	0.0%
	Euro II	7	0.2%	5	0.1%	4	0.1%	4	0.1%	3	0.1%
	Euro III	21	0.5%	20	0.4%	17	0.4%	13	0.3%	8	0.2%
	Euro IV	11	0.2%	12	0.3%	13	0.3%	16	0.4%	18	0.5%
	Euro V	1	0.0%	3	0.1%	5	0.1%	7	0.2%	11	0.3%

Note 10: Numbers in tonnes are rounded to the nearest integer.

Note 11: Vehicles using liquefied petroleum gas as fuel hardly emit FSP. Their FSP emissions are generally estimated as "0".

Note 12: Medium goods vehicle refers to goods vehicles with gross vehicle weight of 5.5 tonnes to 15 tonnes.

Note 13: Heavy goods vehicle refers to goods vehicles with gross vehicle weight greater than 15 tonnes.

Note 14: There are no separate emission calculations for non-franchised public and private buses.

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 15)									
		Nitrogen Oxides (NOx) (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	
		tonne	%	tonne	%	tonne	%	tonne	%	tonne	%
Petrol private car	Pre-Euro	220	0.2%	180	0.2%	140	0.1%	110	0.1%	100	0.1%
	Euro I	70	0.1%	50	0.0%	40	0.0%	20	0.0%	20	0.0%
	Euro II	330	0.3%	280	0.2%	220	0.2%	160	0.2%	130	0.1%
	Euro III	110	0.1%	110	0.1%	100	0.1%	70	0.1%	70	0.1%
	Euro IV	100	0.1%	90	0.1%	90	0.1%	90	0.1%	100	0.1%
	Euro V	<5	0.0%	8	0.0%	10	0.0%	20	0.0%	20	0.0%
Diesel private car	Euro IV or before	20	0.0%	10	0.0%	10	0.0%	10	0.0%	10	0.0%
	Euro V	<5	0.0%	<5	0.0%	<5	0.0%	7	0.0%	8	0.0%
Taxi	Euro III or before	8 300	7.4%	4 900	4.4%	3 000	2.8%	3 000	3.2%	2 700	3.0%
	Euro IV	310	0.3%	290	0.3%	150	0.1%	70	0.1%	90	0.1%
	Euro V	<5	0.0%	130	0.1%	160	0.2%	160	0.2%	230	0.3%
Motorcycle	Pre-Euro	20	0.0%	20	0.0%	10	0.0%	10	0.0%	10	0.0%
	Euro I	100	0.1%	90	0.1%	80	0.1%	60	0.1%	60	0.1%
	Euro III	40	0.0%	50	0.0%	60	0.1%	70	0.1%	70	0.1%
Public light bus	Pre-Euro	10	0.0%	9	0.0%	7	0.0%	<5	0.0%	<5	0.0%
	Euro I	190	0.2%	160	0.1%	120	0.1%	80	0.1%	<5	0.0%
	Euro II	300	0.3%	260	0.2%	240	0.2%	210	0.2%	190	0.2%
	Euro III	940	0.8%	650	0.6%	520	0.5%	460	0.5%	480	0.5%
	Euro IV	70	0.1%	60	0.1%	50	0.1%	50	0.1%	60	0.1%
	Euro V	<5	0.0%	<5	0.0%	6	0.0%	10	0.0%	20	0.0%
Private light bus	Pre-Euro	40	0.0%	40	0.0%	20	0.0%	<5	0.0%	<5	0.0%
	Euro I	40	0.0%	30	0.0%	30	0.0%	20	0.0%	<5	0.0%
	Euro II	40	0.0%	40	0.0%	30	0.0%	30	0.0%	20	0.0%
	Euro III	30	0.0%	30	0.0%	20	0.0%	10	0.0%	10	0.0%
	Euro IV	60	0.1%	50	0.0%	40	0.0%	40	0.0%	40	0.0%
	Euro V	10	0.0%	30	0.0%	40	0.0%	50	0.1%	60	0.1%
Light goods vehicle	Pre-Euro	960	0.9%	790	0.7%	440	0.4%	<5	0.0%	<5	0.0%
	Euro I	570	0.5%	510	0.5%	330	0.3%	160	0.2%	<5	0.0%
	Euro II	840	0.8%	720	0.6%	590	0.5%	420	0.5%	270	0.3%
	Euro III	760	0.7%	690	0.6%	660	0.6%	590	0.6%	540	0.6%
	Euro IV	840	0.8%	750	0.7%	740	0.7%	700	0.7%	690	0.8%
	Euro V	40	0.0%	200	0.2%	430	0.4%	660	0.7%	860	1.0%
Medium goods vehicle (Note 16)	Pre-Euro	440	0.4%	450	0.4%	260	0.2%	<5	0.0%	<5	0.0%
	Euro I	100	0.1%	110	0.1%	80	0.1%	40	0.0%	<5	0.0%
	Euro II	210	0.2%	230	0.2%	190	0.2%	160	0.2%	90	0.1%
	Euro III	250	0.2%	280	0.2%	280	0.3%	280	0.3%	240	0.3%
	Euro IV	230	0.2%	260	0.2%	270	0.2%	290	0.3%	270	0.3%

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 15)									
		Nitrogen Oxides (NOx) (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	
Euro V		20	0.0%	70	0.1%	150	0.1%	260	0.3%	310	0.3%

Heavy goods vehicle (Note 17)	Pre-Euro	1 400	1.2%	1 400	1.2%	740	0.7%	<5	0.0%	<5	0.0%
	Euro I	540	0.5%	560	0.5%	350	0.3%	210	0.2%	<5	0.0%
	Euro II	1 900	1.7%	1 800	1.6%	1 400	1.3%	1 100	1.2%	680	0.8%
	Euro III	1 000	0.9%	1 100	1.0%	1 100	1.0%	1 100	1.2%	880	1.0%
	Euro IV	940	0.8%	1 100	1.0%	1 100	1.1%	1 300	1.3%	1 200	1.3%
	Euro V	80	0.1%	290	0.3%	570	0.5%	970	1.0%	1 100	1.3%
Non-franchised bus (Note 18)	Pre-Euro	110	0.1%	100	0.1%	80	0.1%	<5	0.0%	<5	0.0%
	Euro I	50	0.0%	50	0.0%	40	0.0%	20	0.0%	<5	0.0%
	Euro II	340	0.3%	190	0.2%	170	0.2%	170	0.2%	110	0.1%
	Euro III	730	0.7%	710	0.6%	570	0.5%	410	0.4%	280	0.3%
	Euro IV	580	0.5%	580	0.5%	590	0.5%	570	0.6%	590	0.7%
	Euro V	50	0.0%	120	0.1%	200	0.2%	280	0.3%	390	0.4%

Note 15: The numbers in tonnes smaller than 5 are shown as “<5”, the numbers between 5 and 10 are rounded to the nearest integer, the numbers between 10 and 1 000 are rounded to the nearest ten, the numbers between 1 000 and 10 000 are rounded to the nearest hundred, and 3 significant figures are retained for the numbers greater than 10 000.

Note 16: Medium goods vehicle refers to goods vehicles with gross vehicle weight of 5.5 tonnes to 15 tonnes.

Note 17: Heavy goods vehicle refers to goods vehicles with gross vehicle weight greater than 15 tonnes.

Note 18: There are no separate emission calculations for non-franchised public and private buses.

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 19)									
		Volatile organic compounds (VOC) (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	
		tonne	%	tonne	%	tonne	%	tonne	%	tonne	%
Petrol private car	Pre-Euro	70	0.2%	60	0.2%	50	0.2%	40	0.1%	40	0.1%
	Euro I	30	0.1%	20	0.1%	20	0.1%	10	0.0%	8	0.0%
	Euro II	140	0.5%	120	0.4%	100	0.4%	60	0.2%	50	0.2%
	Euro III	70	0.2%	70	0.2%	70	0.3%	50	0.2%	50	0.2%
	Euro IV	30	0.1%	30	0.1%	30	0.1%	30	0.1%	30	0.1%
	Euro V	<5	0.0%	5	0.0%	8	0.0%	10	0.1%	20	0.1%
	Evaporative	700	2.4%	650	2.3%	590	2.2%	580	2.3%	540	2.0%

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 19)									
		Volatile organic compounds (VOC) (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	
emission (Note 20)											
Diesel private car	Euro IV or before	7	0.0%	5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
	Euro V	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Taxi	Euro III or before	760	2.6%	370	1.3%	210	0.8%	150	0.6%	140	0.5%
	Euro IV	20	0.1%	10	0.0%	10	0.0%	9	0.0%	9	0.0%
	Euro V	<5	0.0%	7	0.0%	10	0.0%	20	0.1%	20	0.1%
Motor-cycle	Pre-Euro	100	0.4%	90	0.3%	80	0.3%	70	0.3%	60	0.2%
	Euro I	550	1.9%	460	1.6%	410	1.5%	360	1.4%	320	1.2%
	Euro III	40	0.1%	50	0.2%	60	0.2%	70	0.3%	80	0.3%
	Evaporative emission (Note 20)	2 100	7.4%	2 200	7.9%	2 300	8.7%	2 500	9.7%	2 600	10.0%
Public light bus	Pre-Euro	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
	Euro I	10	0.0%	8	0.0%	7	0.0%	<5	0.0%	<5	0.0%
	Euro II	20	0.1%	10	0.0%	10	0.0%	10	0.0%	10	0.0%
	Euro III	470	1.6%	290	1.0%	220	0.8%	210	0.8%	210	0.8%
	Euro IV	40	0.1%	40	0.1%	40	0.1%	40	0.2%	50	0.2%
	Euro V	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Private light bus	Pre-Euro	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
	Euro I	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
	Euro II	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
	Euro III	10	0.0%	10	0.0%	10	0.0%	6	0.0%	<5	0.0%
	Euro IV	10	0.0%	10	0.0%	10	0.0%	9	0.0%	9	0.0%
	Euro V	<5	0.0%	6	0.0%	10	0.0%	10	0.0%	20	0.1%
	Evaporative emission (Note 20)	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Light goods vehicle	Pre-Euro	30	0.1%	30	0.1%	10	0.1%	<5	0.0%	<5	0.0%
	Euro I	60	0.2%	50	0.2%	30	0.1%	20	0.1%	<5	0.0%
	Euro II	60	0.2%	50	0.2%	40	0.2%	30	0.1%	20	0.1%
	Euro III	60	0.2%	60	0.2%	50	0.2%	50	0.2%	40	0.2%
	Euro IV	20	0.1%	20	0.1%	10	0.1%	10	0.1%	10	0.1%
	Euro V	<5	0.0%	5	0.0%	10	0.0%	20	0.1%	20	0.1%
	Evaporative emission (Note 20)	7	0.0%	6	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Medium goods vehicle (Note 21)	Pre-Euro	30	0.1%	30	0.1%	20	0.1%	<5	0.0%	<5	0.0%
	Euro I	8	0.0%	8	0.0%	6	0.0%	<5	0.0%	<5	0.0%
	Euro II	20	0.1%	20	0.1%	20	0.1%	10	0.1%	8	0.0%
	Euro III	20	0.1%	20	0.1%	20	0.1%	20	0.1%	20	0.1%
	Euro IV	<5	0.0%	<5	0.0%	6	0.0%	7	0.0%	7	0.0%
	Euro V	<5	0.0%	<5	0.0%	5	0.0%	10	0.0%	10	0.0%
Heavy goods	Pre-Euro	90	0.3%	90	0.3%	50	0.2%	<5	0.0%	<5	0.0%
	Euro I	40	0.1%	40	0.1%	30	0.1%	20	0.1%	<5	0.0%

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 19)									
		Volatile organic compounds (VOC) (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
vehicle (Note 22)	Euro II	2012		2013		2014		2015		2016	
		60	0.2%	60	0.2%	50	0.2%	40	0.1%	20	0.1%
	Euro III	80	0.3%	90	0.3%	80	0.3%	80	0.3%	70	0.3%
	Euro IV	20	0.1%	20	0.1%	20	0.1%	30	0.1%	20	0.1%
	Euro V	<5	0.0%	8	0.0%	10	0.1%	30	0.1%	30	0.1%

Non-franchised bus (Note 23)	Pre-Euro	9	0.0%	9	0.0%	7	0.0%	<5	0.0%	<5	0.0%
	Euro I	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
	Euro II	20	0.1%	10	0.0%	9	0.0%	8	0.0%	<5	0.0%
	Euro III	50	0.2%	40	0.2%	30	0.1%	30	0.1%	20	0.1%
	Euro IV	30	0.1%	20	0.1%	20	0.1%	20	0.1%	30	0.1%
	Euro V	5	0.0%	10	0.0%	20	0.1%	20	0.1%	30	0.1%

Note 19: The numbers in tonnes smaller than 5 are shown as “<5”, the numbers between 5 and 10 are rounded to the nearest integer, the numbers between 10 and 1 000 are rounded to the nearest ten, the numbers between 1 000 and 10 000 are rounded to the nearest hundred, and 3 significant figures are retained for the numbers greater than 10 000.

Note 20: Since evaporative emission standard is different from tailpipe emission standard, the figures are set out separately for easy identification.

Note 21: Medium goods vehicle refers to goods vehicles with gross vehicle weight of 5.5 tonnes to 15 tonnes.

Note 22: Heavy goods vehicle refers to goods vehicles with gross vehicle weight greater than 15 tonnes.

Note 23: There are no separate emission calculations for non-franchised public and private buses.

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 24)									
		Carbon monoxide (CO) (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	
		tonne	%	tonne	%	tonne	%	tonne	%	tonne	%
Petrol private car	Pre-Euro	1 000	1.2%	810	1.2%	680	1.1%	620	1.1%	560	1.0%
	Euro I	380	0.5%	280	0.4%	200	0.3%	160	0.3%	120	0.2%
	Euro II	2 400	2.9%	2 000	2.9%	1 600	2.7%	1 300	2.3%	1 100	1.8%
	Euro III	3 400	4.0%	3 100	4.6%	2 900	4.9%	3 000	5.2%	2 800	4.7%
	Euro IV	990	1.2%	930	1.4%	920	1.6%	1 000	1.8%	1 100	1.8%
	Euro V	140	0.2%	320	0.5%	490	0.8%	790	1.4%	980	1.7%
Diesel private car	Euro IV or before	20	0.0%	10	0.0%	10	0.0%	10	0.0%	10	0.0%
	Euro V	<5	0.0%	<5	0.0%	10	0.0%	20	0.0%	30	0.0%

Vehicle type	Exhaust emission standard	Air pollutant emissions (Note 24)									
		Carbon monoxide (CO) (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
		2012		2013		2014		2015		2016	
Taxi	Euro III or before	27 800	33.3%	14 900	22.1%	8 800	14.8%	8 900	15.4%	8 700	14.8%
	Euro IV	1 200	1.5%	750	1.1%	370	0.6%	410	0.7%	450	0.8%
	Euro V	40	0.1%	790	1.2%	1 000	1.7%	1 500	2.6%	2 200	3.8%
Motorcycle	Pre-Euro	730	0.9%	590	0.9%	510	0.9%	450	0.8%	390	0.7%
	Euro I	4 100	4.9%	3 400	5.0%	3 000	5.0%	2 600	4.5%	2 300	3.8%
	Euro III	430	0.5%	510	0.8%	630	1.1%	760	1.3%	850	1.5%
Public light bus	Pre-Euro	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
	Euro I	30	0.0%	20	0.0%	20	0.0%	10	0.0%	<5	0.0%
	Euro II	50	0.1%	40	0.1%	40	0.1%	30	0.1%	30	0.1%
	Euro III	9 900	11.8%	6 500	9.6%	4 800	8.2%	4 000	7.0%	4 200	7.2%
	Euro IV	1 200	1.4%	1 100	1.7%	1 100	1.8%	1 000	1.7%	1 200	2.0%
	Euro V	<5	0.0%	<5	0.0%	<5	0.0%	7	0.0%	10	0.0%
Private light bus	Pre-Euro	10	0.0%	7	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
	Euro I	10	0.0%	10	0.0%	9	0.0%	<5	0.0%	<5	0.0%
	Euro II	30	0.0%	20	0.0%	10	0.0%	5	0.0%	<5	0.0%
	Euro III	250	0.3%	220	0.3%	180	0.3%	100	0.2%	80	0.1%
	Euro IV	290	0.3%	250	0.4%	240	0.4%	200	0.3%	210	0.4%
	Euro V	50	0.1%	110	0.2%	170	0.3%	210	0.4%	280	0.5%
Light goods vehicle	Pre-Euro	270	0.3%	210	0.3%	130	0.2%	10	0.0%	20	0.0%
	Euro I	290	0.3%	230	0.3%	140	0.2%	80	0.1%	20	0.0%
	Euro II	200	0.2%	160	0.2%	130	0.2%	100	0.2%	80	0.1%
	Euro III	250	0.3%	220	0.3%	210	0.3%	190	0.3%	180	0.3%
	Euro IV	260	0.3%	240	0.4%	250	0.4%	260	0.4%	280	0.5%
	Euro V	10	0.0%	70	0.1%	150	0.3%	240	0.4%	300	0.5%
Medium goods vehicle (Note 25)	Pre-Euro	90	0.1%	100	0.1%	60	0.1%	<5	0.0%	<5	0.0%
	Euro I	10	0.0%	20	0.0%	10	0.0%	7	0.0%	<5	0.0%
	Euro II	30	0.0%	40	0.1%	30	0.1%	30	0.0%	20	0.0%
	Euro III	50	0.1%	50	0.1%	50	0.1%	50	0.1%	50	0.1%
	Euro IV	40	0.0%	50	0.1%	60	0.1%	80	0.1%	80	0.1%
	Euro V	<5	0.0%	10	0.0%	30	0.1%	60	0.1%	80	0.1%
Heavy goods vehicle (Note 26)	Pre-Euro	260	0.3%	260	0.4%	140	0.2%	<5	0.0%	<5	0.0%
	Euro I	220	0.3%	220	0.3%	140	0.2%	80	0.1%	<5	0.0%
	Euro II	380	0.5%	370	0.6%	290	0.5%	240	0.4%	140	0.2%
	Euro III	580	0.7%	640	0.9%	610	1.0%	620	1.1%	500	0.8%
	Euro IV	320	0.4%	390	0.6%	430	0.7%	500	0.9%	470	0.8%
	Euro V	20	0.0%	60	0.1%	120	0.2%	210	0.4%	250	0.4%
Non-franchised bus (Note 27)	Pre-Euro	30	0.0%	30	0.0%	20	0.0%	<5	0.0%	<5	0.0%
	Euro I	20	0.0%	20	0.0%	20	0.0%	8	0.0%	<5	0.0%
	Euro II	100	0.1%	50	0.1%	40	0.1%	30	0.1%	20	0.0%
	Euro III	240	0.3%	230	0.3%	190	0.3%	140	0.2%	100	0.2%
	Euro IV	170	0.2%	190	0.3%	210	0.3%	210	0.4%	230	0.4%
	Euro V	20	0.0%	40	0.1%	80	0.1%	120	0.2%	180	0.3%

Note 24: The numbers in tonnes smaller than 5 are shown as “<5”, the numbers between 5 and 10 are rounded to the nearest integer, the numbers between 10 and 1 000 are rounded to the nearest ten, the numbers between 1 000 and 10 000 are rounded to the nearest hundred, and 3 significant figures are retained for the numbers greater than 10 000.

Note 25: Medium goods vehicle refers to goods vehicles with gross vehicle weight of 5.5 tonnes to 15 tonnes.

Note 26: Heavy goods vehicle refers to goods vehicles with gross vehicle weight greater than 15 tonnes.

Note 27: There are no separate emission calculations for non-franchised public and private buses.

Vehicle type (Note 28)	Air pollutant emissions (Note 29)									
	Sulphur dioxide (SO ₂) (tonnes / percentage in overall air pollutant emissions in Hong Kong)									
	2012		2013		2014		2015		2016	
	tonne	%	tonne	%	tonne	%	tonne	%	tonne	%
Petrol private car	9	0.0%	9	0.0%	9	0.0%	10	0.0%	10	0.1%
Diesel private car	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Taxi	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Motorcycle	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Public light bus	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Private light bus	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Light goods vehicle	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%
Medium and heavy goods vehicle	12	0.0%	12	0.0%	12	0.0%	12	0.1%	12	0.1%
Non-franchised bus	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%	<5	0.0%

Note 28: Since motor vehicle emission of sulphur dioxide is calculated based on fuel consumption of various types of vehicles, a breakdown of the emission by exhaust emission standard is not available. There are no separate emission calculations for medium goods vehicles and heavy goods vehicles.

Note 29: The numbers in tonnes smaller than 5 are shown as “<5” and the numbers between 5 and 10 are rounded to the nearest integer.

Since ozone is not directly emitted from air pollution sources (such as motor vehicles) but is formed by photochemical reactions of some air pollutants (including nitrogen oxides and volatile organic compounds) under sunlight, it is not included in the emission inventory.

- End -

CONTROLLING OFFICER'S REPLY

ENB109

(Question Serial No. 1409)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Would the Government inform this Committee of the following:

- (1) What were the ambient concentration limits for respirable suspended particulates, fine suspended particulates, nitrogen dioxide, sulphur dioxide and ozone in 2018?
- (2) What were the respective numbers of days on which the levels of the above 5 pollutants exceeded the limits in 2018?
- (3) Does the Administration have any targeted policy to cope with the increase in ozone concentration? If yes, what are the details?

Asked by: Hon LAM Kin-fung, Jeffrey (LegCo internal reference no.: 9)

Reply:

- (1) and (2) According to the preliminary data recorded at various air quality monitoring stations (AQMSs) by the Environmental Protection Department (EPD) in 2018, the concentrations of respirable suspended particulates (RSP), fine suspended particulates (FSP) and sulphur dioxide (SO₂) all met the relevant Air Quality Objectives (AQOs). Although the concentrations of nitrogen dioxide (NO₂) recorded at some AQMSs in 2018 still exceeded the concentration limit, the annual average concentrations of ambient and roadside NO₂ have dropped by about 30% respectively from 2013 to 2018, indicating that the emission control measures implemented in recent years are effective. As for ozone (O₃), the concentrations of O₃ recorded at some AQMSs in 2018 still exceeded the concentration limit. Detailed figures are provided at **Annex 1**.
- (3) O₃ is a complicated regional air pollution problem. It is not directly emitted from pollution sources but formed by chemical reactions amongst various air pollutants in the ambient air. O₃ is mainly formed by photochemical reactions of nitrogen oxides (NO_x) (including nitric oxide (NO) and NO₂) and volatile organic compounds (VOC) under sunlight. On the other hand, O₃ can be consumed by having chemical reactions with NO to form NO₂. In recent years, local vehicle emission control measures have been implemented to

reduce vehicular NO_x (comprising mainly NO and some NO₂) emissions, which also led to less O₃ consumption in urban and roadside areas, and hence a rise in O₃ level in these areas. This phenomenon is similar to those experienced by many other cities when tackling their air pollution problems. The Hong Kong SAR Government is adopting a two-pronged approach to reduce our local O₃ concentration: to reduce the local O₃ precursors (i.e. NO_x and VOC), as well as to strengthen regional cooperation.

Key measures to reduce local NO_x emissions include tightening emissions from power plants, progressively phasing out about 82 000 pre-Euro IV diesel commercial vehicles by the end of 2019, subsidising the franchised bus companies to retrofit eligible Euro II and Euro III franchised buses with selective catalytic reduction (SCR) devices, strengthening the emissions control on petrol and liquefied petroleum gas (LPG) vehicles, and tightening the vehicle emission standard to Euro VI in phases, etc. Key measures to reduce VOC emissions include controlling VOC contents of regulated products (e.g. paints, adhesives, sealants, consumer products and printing inks, etc.), tightening emission standards of vehicles and strengthening the emissions control on petrol and LPG vehicles.

We will continue to pursue new initiatives to reduce NO_x and VOC emissions. These include conducting a review on “The Seventh Technical Memorandum for Allocation of Emission Allowances in Respect of Specified Licences” for power plants this year with a view to further tightening their emissions; preparing to progressively phase out about 40 000 Euro IV diesel commercial vehicles by the end of 2023, tightening the emission standards for newly registered motorcycles to Euro IV in 2020, tightening the emission standards for newly registered light buses to Euro VI in 2021, and fully subsidising franchised bus companies in conducting trials to retrofit Euro IV and Euro V franchised buses with enhanced SCR devices; as well as reviewing the feasibility of further tightening the VOC limits of regulated architectural paints.

The Hong Kong SAR government has been collaborating with Guangdong authorities to improve the regional air quality. In 2012, the Hong Kong and Guangdong governments set the 2015 emission reduction targets and the 2020 emission reduction ranges for 4 major air pollutants (including NO_x and VOC) in the Pearl River Delta Region. At the end of 2017, both sides confirmed the attainment of emission reduction targets in 2015 and finalised the reduction targets for 2020 (see **Annex 2**). Both governments have been working hard to push forward the next phase of Guangdong-Hong Kong emission reduction cooperation and have set up a science team to jointly carry out a study on post-2020 air pollutant emission reduction targets and concentration levels for Hong Kong and Guangdong, with a view to formulating a regional emission reduction plan beyond 2020.

Due to the complicated formation and transport mechanism of O₃ and the variety of VOC species and sources, both governments have strengthened scientific studies on O₃ and VOC in order to further understand the O₃ formation in the region and help formulate the effective control measures.

Both sides are adding the real time VOC monitoring in the regional air monitoring network in phases and plan to set up a 3-dimensional air pollutant monitoring network by using Light Detection And Ranging (LIDAR) to measure the concentrations of O₃ and suspended particulates at heights, so as to understand their formation and transportation. In 2017, the EPD also set up a supersite at Cape D'Aguilar to use advance equipment to collect data for scientific study and better understanding of the formation of regional pollution including O₃ and FSP, and help devise policy to tackle the pollution problems.

Table 1: The annual average concentrations of pollutants recorded at various AQMSs and the AQOs compliance status in 2018

Long-term (annual) AQOs ^{Note 1}	Concentration limit ($\mu\text{g}/\text{m}^3$)			
	RSP	FSP	NO ₂	
	50	35	40	
Number of exceedances allowed	Not applicable			
Annual average concentrations in 2018 ^{Note 2} ($\mu\text{g}/\text{m}^3$) and compliance with the AQOs (Yes/No)				
AQMS				
General AQMS	Central/ Western	34(Yes)	21(Yes)	39(Yes)
	Eastern	33(Yes)	19(Yes)	39(Yes)
	Kwun Tong	38(Yes)	22(Yes)	43(No)
	Sham Shui Po	32(Yes)	21(Yes)	49(No)
	Kwai Chung	32(Yes)	20(Yes)	55(No)
	Tsuen Wan	30(Yes)	20(Yes)	45(No)
	Tseung Kwan O	28(Yes)	15(Yes)	28(Yes)
	Yuen Long	37(Yes)	20(Yes)	43(No)
	Tuen Mun	42(Yes)	26(Yes)	47(No)
	Tung Chung	31(Yes)	18(Yes)	33(Yes)
	Tai Po	31(Yes)	19(Yes)	36(Yes)
	Sha Tin	32(Yes)	19(Yes)	35(Yes)
	Tap Mun	31(Yes)	17(Yes)	11(Yes)
Roadside AQMS	Causeway Bay	46(Yes)	30(Yes)	87(No)
	Central	34(Yes)	21(Yes)	80(No)
	Mong Kok	36(Yes)	24(Yes)	79(No)

Note 1: There are no long-term AQOs for SO₂ and O₃.

Note 2: The data of 2018 are not yet validated.

Table 2: The short-term concentrations of pollutants recorded at various AQMSs and the AQOs compliance status in 2018

Short-term AQOs		RSP	FSP	NO ₂	SO ₂		O ₃
Average time		24-hour	24-hour	1-hour	10-minute	24-hour	8-hour
Concentration limit (µg/m ³)		100	75	200	500	125	160
Number of exceedances allowed		9	9	18	3	3	9
AQMS		Short-term concentrations in 2018 ^{Note 1} (µg/m ³), number of exceedances (in brackets) and compliance with the AQOs (Yes/No)					
General AQMS	Central/Western	70(2)/Yes	47(2)/Yes	159(4)/Yes	135(0)/Yes	22(0)/Yes	164(11)/No
	Eastern	68(1)/Yes	39(0)/Yes	128(0)/Yes	123(0)/Yes	12(0)/Yes	161(10)/No
	Kwun Tong	78(2)/Yes	45(0)/Yes	178(11)/Yes	51(0)/Yes	12(0)/Yes	130(0)/Yes
	Sham Shui Po	59(0)/Yes	41(0)/Yes	152(1)/Yes	98(0)/Yes	21(0)/Yes	147(5)/Yes
	Kwai Chung	62(0)/Yes	38(0)/Yes	196(14)/Yes	134(0)/Yes	27(0)/Yes	133(1)/Yes
	Tsuen Wan	71(2)/Yes	48(2)/Yes	181(9)/Yes	113(0)/Yes	21(0)/Yes	148(9)/Yes
	Tseung Kwan O	53(0)/Yes	32(0)/Yes	135(0)/Yes	38(0)/Yes	13(0)/Yes	169(15)/No
	Yuen Long	75(4)/Yes	46(1)/Yes	150(3)/Yes	52(0)/Yes	17(0)/Yes	162(10)/No
	Tuen Mun	87(4)/Yes	53(2)/Yes	177(11)/Yes	94(0)/Yes	20(0)/Yes	173(18)/No
	Tung Chung	73(2)/Yes	48(2)/Yes	156(7)/Yes	88(0)/Yes	19(0)/Yes	173(14)/No
	Tai Po	69(0)/Yes	47(0)/Yes	125(0)/Yes	24(0)/Yes	8(0)/Yes	167(13)/No
	Sha Tin	65(1)/Yes	40(0)/Yes	149(0)/Yes	76(0)/Yes	16(0)/Yes	182(17)/No
	Tap Mun	60(0)/Yes	32(0)/Yes	51(0)/Yes	29(0)/Yes	13(0)/Yes	184(20)/No
Roadside AQMS	Causeway Bay	82(1)/Yes	55(1)/Yes	277(148)/No	82(0)/Yes	19(0)/Yes	78(0)/Yes
	Central	74(1)/Yes	50(1)/Yes	257(120)/No	101(0)/Yes	20(0)/Yes	96(0)/Yes
	Mong Kok	73(2)/Yes	51(2)/Yes	243(48)/No	88(0)/Yes	19(0)/Yes	97(0)/Yes

Note 1: The data of 2018 are not yet validated. The short-term RSP, FSP and O₃ concentrations were the tenth highest level, the short-term NO₂ concentrations were the nineteenth highest level and the short-term SO₂ concentrations were the fourth highest level.

Table 1: 2015 and 2020 Emission Reduction Targets for the Pearl River Delta (PRD) Region

Pollutant	Region ^{Note 1}	2015 Emission Reduction Targets ^{Note 2}	2020 Emission Reduction Targets ^{Note 2}
SO ₂	Hong Kong	-25%	-55%
	PRD Economic Zone	-16%	-28%
NO _x	Hong Kong	-10%	-20%
	PRD Economic Zone	-18%	-25%
RSP	Hong Kong	-10%	-25%
	PRD Economic Zone	-10%	-17%
VOC	Hong Kong	-5%	-15%
	PRD Economic Zone	-10%	-20%

Note 1: The Pearl River Delta (PRD) Economic Zone includes Guangzhou, Shenzhen, Zhuhai, Dongguan, Zhongshan, Foshan, Jiangmen, Huizhou and Zhaoqing

Note 2: Reductions are relative to 2010 emission levels

- End -

CONTROLLING OFFICER'S REPLY

ENB110

(Question Serial No. 0800)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (6) Nature Conservation

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department will plan and co-ordinate minor improvement works in Lai Chi Wo and Sha Lo Tung as priority areas.

1. Please provide details of the improvement works projects in Lai Chi Wo and Sha Lo Tung, as well as details of the manpower establishment and the estimated expenditure to be involved.
2. Please provide the implementation timetable for the improvement works and the estimated number of people to be benefited.

Asked by: Hon LAU Ip-keung, Kenneth (LegCo internal reference no.: 300)

Reply:

1. Established in late July 2018, the Countryside Conservation Office (CCO) is expected to comprise 25 officers from various grades to take forward the relevant conservation and revitalisation efforts as well as minor improvement works with the \$1 billion earmarked by the Government. The CCO plans to launch a Countryside Conservation Funding Scheme with half of the \$1 billion (i.e. \$500 million) under a non-recurrent account to support non-governmental organisations (NGOs) to interact and co-operate with villagers. The CCO also plans to spend the remaining \$500 million on suitable minor improvement works and rehabilitation of the existing architectural environment in the countryside.

Since the establishment of the CCO, its staff have conducted a number of site inspections to Lai Chi Wo and Sha Lo Tung, and have been liaising and co-ordinating with relevant government departments, NGOs and relevant stakeholders (including village representatives, the Rural Committees concerned and green groups, etc.) to discuss and examine suitable minor works proposals. Its preliminary proposals include exploring the feasibility of installing a broadband network and improving public toilet facilities, details of which are still under formulation at this stage. The CCO will consult the Advisory Committee on Countryside Conservation, which will soon be established, about the suitable improvement works proposals, with a view to taking forward the proposals as soon as possible to improve the local infrastructure.

2. Subject to the extent of the minor improvement works to be implemented in Lai Chi Wo and Sha Lo Tung, it is believed that not only the villagers, but also countryside visitors will be benefited. It is difficult to estimate the specific number of people to be benefited at the moment.

- End -

CONTROLLING OFFICER'S REPLY**ENB111****(Question Serial No. 1192)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

To promote wider use of electric vehicles (EVs), the Government will allocate \$120 million to extend the public EV charging networks at government car parks. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to 1 700. The Government will also identify suitable on-street parking spaces to install EV chargers on a trial basis and explore suitable locations to set up pilot quick charging stations for EVs.

1. Please set out the number of first registered EVs in Hong Kong in the past 3 years.
2. Please tabulate by district the number of public EV chargers currently provided at government car parks.
3. Please tabulate by district the locations of the government car parks where public EV charging network will be provided, the number of parking spaces in such car parks to be provided and the estimated construction cost for each car park in the coming 3 years.
4. How will the Government take forward the work of “identifying suitable on-street parking spaces” in this financial year? What are the details of the work plan, expenditure and staff establishment involved?

Asked by: Hon LAU Ip-keung, Kenneth (LegCo internal reference no.: 290)Reply:

1. The numbers of electric vehicles (EVs) first registered in Hong Kong in the past 3 years are as follows:

Year	No. of first registered EVs
2016	3 047
2017	3 904
2018	497

Note: Government vehicles are not included in the numbers as they do not require first registration.

2. As at the end of December 2018, there were 782 public chargers provided at government car parks which are open for public use in Hong Kong, including 314 standard chargers, 464 medium chargers and 4 quick chargers. The numbers of these chargers with a breakdown by 18 districts of Hong Kong are provided below:

District	No. of chargers			Sub-total
	Standard	Medium	Quick	
Central & Western	52	93	0	145
Eastern	11	50	0	61
Southern	0	0	0	0
Wan Chai	18	65	0	83
Kowloon City	61	0	0	61
Kwun Tong	13	4	0	17
Sham Shui Po	9	32	0	41
Wong Tai Sin	5	35	0	40
Yau Tsim Mong	40	6	0	46
Kwai Tsing	9	0	0	9
Tsuen Wan	7	33	0	40
Sai Kung	6	20	0	26
North	6	15	0	21
Tai Po	25	0	0	25
Sha Tin	43	20	0	63
Yuen Long	9	2	0	11
Tuen Mun	0	0	0	0
Islands	0	89	4	93
Total	314	464	4	782

Note: Including the Transport Department (TD), the Government Property Agency (GPA), the Leisure and Cultural Services Department (LCSD), the Electrical and Mechanical Services Department, the Housing Department, the Tourism Commission and the Highways Department

3. The Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the TD, the GPA and the LCSD which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. Please refer to the following table and Annex 1 for the expected number of facilities and estimated expenditure:

Year	No. of proposed additional medium public EV charging facilities	Estimated expenditure (\$m)
2019-20	About 170 medium chargers	17
2020-21	About 600 medium chargers	60
2021-22	About 430 medium chargers	43

Remark:

The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

4. Regarding the installation of EV chargers at on-street parking spaces, the parking spaces set up at roadside serve mainly short-term parking needs, and parking meters are generally erected at these parking spaces to increase the circulation of the parking spaces for use by more drivers. Taking into account the potential impact on nearby traffic and the parking needs of other drivers, as well as related technical considerations (such as power supply and space constraints), relevant Government departments are actively looking for suitable on-street parking spaces to install charging facilities on a trial basis. The relevant work is absorbed by the Environmental Protection Department with its existing resources. There is no separate breakdown on the expenditure in this regard.

Details of the Government's plan to install EV chargers and the estimated expenditure

Department	District		Location	<u>No. of EV chargers to be installed</u>	Estimated expenditure (\$m)
TD	Southern	1.	Aberdeen car park	About 690 in total	69
	Central & Western	2.	Kennedy Town car park		
	Kwai Tsing	3.	Kwai Fong car park		
	Eastern	4.	Shau Kei Wan car park		
	Wong Tai Sin	5.	Sheung Fung Street car park		
	Wan Chai	6.	Tin Hau car park		
	Tsuen Wan	7.	Tsuen Wan car park		
GPA	Eastern	8.	North Point Government Offices	About 190 in total	19
	Central & Western	9.	Queensway Government Offices		
	Sha Tin	10.	Shatin Government Offices		
	North	11.	North District Government Offices		
	Tai Po	12.	Tai Po Government Offices		
	Yuen Long	13.	Yuen Long District Office		
	Tuen Mun	14.	Tuen Mun Government Offices		
	Sai Kung	15.	Sai Kung Government Offices		

Department	District		Location	<u>No. of EV chargers to be installed</u>	Estimated expenditure (\$m)
	Sham Shui Po	16.	Cheung Sha Wan Government Offices		
	Kowloon City	17.	Trade and Industry Tower		
LCSD	Central & Western	18.	Sun Yat Sen Memorial Park	About 310 in total	31
		19.	Sun Yat Sen Memorial Park Sports Centre		
	Eastern	20.	Siu Sai Wan Sports Ground		
		21.	Island East Sports Centre		
	Southern	22.	Deep Water Bay Beach		
		23.	Ap Lei Chau Waterfront Promenade		
	Wan Chai	24.	Wong Nai Chung Gap Children's Playground		
	Kwun Tong	25.	Kowloon Bay Park		
		26.	Ping Shek Playground		
		27.	Shun Lee Tsuen Park		
		28.	Lei Yue Mun Municipal Services Building		
	Sham Shui Po	29.	Lai Chi Kok Park		
		30.	Sham Shui Po Sports Ground		
31.		Cornwall Street Park			
32.		Lung Cheung Road Lookout			
Wong Tai Sin	33.	Hammer Hill Road Sports Ground			

Department	District		Location	<u>No. of EV chargers to be installed</u>	Estimated expenditure (\$m)
		34.	Po Kong Village Road Park		
	Yau Tsim Mong	35.	Kowloon Park		
	Islands	36.	Tung Chung Municipal Services Building		
	Kwai Tsing	37.	Tsing Yi Southwest Leisure Building		
		38.	Tsing Yi Northeast Park		
		39.	Tsing Yi Sports Ground and Swimming Pool		
		40.	Kwai Chung Sports Ground		
		41.	Hing Fong Road Playground		
		North	42.	Sheung Shui Swimming Pool	
	43.		North District Sports Ground		
	44.		Wo Hing Sports Centre		
	45.		Po Wing Road Sports Centre		
	46.		Fanling Swimming Pool		
	Sai Kung	47.	Tseung Kwan O Swimming Pool		
		48.	Tseung Kwan O Sports Ground		
		49.	Tiu Keng Leng Sports Centre		

Department	District		Location	<u>No. of EV chargers to be installed</u>	Estimated expenditure (\$m)
	Sha Tin	50.	Siu Lek Yuen Road Playground		
		51.	Sha Tin Sports Ground and Yuen Wo Playground		
		52.	Sha Tin Jockey Club Swimming Pool and Yuen Wo Road Sports Centre		
		53.	Sha Tin Town Hall		
		54.	Hong Kong Heritage Museum		
		55.	Ma On Shan Swimming Pool		
		56.	Ma On Shan Sports Ground		
		57.	Yuen Chau Kok Complex		
	Tai Po	58.	Tai Po Sports Ground		
		59.	Tai Po Complex		
		60.	Kwong Fuk Park		
	Tsuen Wan	61.	Shing Mun Valley Swimming Pool		
		62.	Shing Mun Valley Sports Ground		
	Tuen Mun	63.	Tuen Mun North West Swimming Pool		
64.		Tuen Mun Swimming Pool			

Department	District		Location	<u>No. of EV chargers to be installed</u>	Estimated expenditure (\$m)
		65.	Yau Oi Sports Centre		
	Yuen Long	66.	Yuen Long Swimming Pool		
		67.	Tin Shui Wai Swimming Pool & Tin Shui Wai Sports Centre		
		68.	Tin Shui Wai Sports Ground		
		69.	Tin Yip Road Park		
		70.	Fung Kam Street Sports Centre		

Remark:

The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

- End -

CONTROLLING OFFICER'S REPLY

ENB112

(Question Serial No. 1843)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (6) Nature Conservation

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in the Budget that “The Department established the Countryside Conservation Office (CCO) in July 2018 to co-ordinate conservation and revitalisation projects in the countryside for the long-term sustainable development of remote countryside areas. The CCO will implement minor improvement works in countryside areas, as well as support non-governmental organisations (NGOs) to interact and co-operate with villagers in organising diverse and innovative conservation activities and revitalisation projects under the Countryside Conservation Funding Scheme (CCFS) which is expected to be launched in 2019. The CCO has been liaising and co-ordinating with relevant government departments, NGOs and stakeholders to work on some minor works proposals for improving public facilities in remote countryside areas. The Advisory Committee on Countryside Conservation (ACCC) will be established in 2019 to examine applications on conservation and revitalisation projects submitted by NGOs and to monitor the implementation of approved projects.”

In this connection, would the Government advise on the following:

1. What is the staff establishment of the CCO and what is its work since its establishment?
2. Regarding implementing minor improvement works in countryside areas, what are the details of the works and projects conducted?
3. Regarding improving public facilities in remote countryside areas, what are the details of the work and plans carried out?
4. What are the structures, details and implementation timetables of the CCFS and the ACCC which are expected to be established in 2019? What are the estimates involved?

Asked by: Hon LEUNG Che-cheung (LegCo internal reference no.: 38)

Reply:

1. Established in late July 2018, the Countryside Conservation Office (CCO) is expected to comprise 25 officers from various grades to co-ordinate conservation projects that will promote sustainable development of remote countryside..

2. and 3. Since the establishment of the CCO, its staff have conducted a number of site inspections to Lai Chi Wo and Sha Lo Tung, and have been liaising and co-ordinating with relevant government departments, non-governmental organisations (NGOs) and stakeholders (including village representatives, the Rural Committees concerned and green groups, etc.) to discuss and examine suitable minor improvement works proposals. Its preliminary proposals include exploring the feasibility of installing a broadband network and improving public toilet facilities, details of which are still under formulation at this stage. The CCO will consult the Advisory Committee on Countryside Conservation (ACCC), which will soon be established, about the suitable improvement works proposals, with a view to taking forward the proposals as soon as possible to improve the local infrastructure.

As a priority, the CCO will enhance countryside revitalisation in Lai Chi Wo, as well as ecological conservation in Sha Lo Tung, and will keep under review the implementation of these initiatives and their effectiveness from time to time, with the aim of extending the initiatives progressively to other remote countryside areas.

4. The ACCC will be established in the first half of 2019, and its members will include representatives of relevant government departments, as well as non-government stakeholders such as scholars, professionals, rural/district stakeholders and representatives of green groups, etc. The main duties of the ACCC are to examine applications on conservation and revitalisation projects (excluding minor improvement works) submitted by NGOs, and monitor the implementation of approved projects and proposals. The CCO will also consult the ACCC on the scope of and application procedures for conservation and revitalisation projects.

The CCO is preparing the Countryside Conservation Funding Scheme (CCFS) and expects to launch it and accept applications in the third quarter of 2019. We have earmarked \$40 million in 2019-20 to meet the cash flow requirements for the CCFS in support of the applications on conservation and revitalisation projects (excluding minor improvement works) submitted by NGOs.

- End -

CONTROLLING OFFICER'S REPLY

ENB113

(Question Serial No. 1849)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

1. Please list the indexes of distribution of health risk categories recorded at different monitoring stations in the past 2 years;
2. Please list the average concentrations of respirable suspended particulates, fine suspended particulates, nitrogen dioxide, sulphur dioxide and ozone recorded at the air monitoring stations in Tuen Mun and Yuen Long in the past 3 years, and their comparison with the territory-wide average concentrations;
3. Guangdong and Hong Kong are pressing ahead with the implementation of the Pearl River Delta Regional Air Quality Management Plan and have endorsed the emission reduction targets for 2020. What are the latest emission reduction ranges for Hong Kong?

Asked by: Hon LEUNG Che-cheung (LegCo internal reference no.: 44)

Reply:

- 1 Air quality is affected by both the air pollutant emissions and meteorological factors. Air pollutant emissions are directly related to economic activities and control measures and are the major determinants of the long-term trend of air quality, while fluctuations in meteorological conditions can cause short-term changes in air quality. Therefore, there may be differences in air quality from one year to another due to changes in meteorological conditions even though the air pollutant emissions remain constant. To assess the overall changes in air quality and the effectiveness of control measures, we should monitor the long-term trend of air quality rather than its short-term changes.

The Air Quality Health Index (AQHI) is a health risk based system which reflects the short-term health risk of air quality and helps the public take precautionary measures to protect their health. The AQHIs are reported on a scale of 1 to 10 and 10+ and are grouped into five health risk categories ("Low" health risk category for AQHIs 1-3, "Moderate" health risk category for AQHIs 4-6, "High" health risk category for AQHI 7, "Very High" health risk category for AQHIs 8-10 and "Serious" health risk category for AQHI 10+).

The health risk category distribution recorded at various air quality monitoring stations (AQMSs) (including 3 roadside AQMSs and 13 general AQMSs) in 2017 and 2018 is shown in Table 1.

Table 1: The distribution of health risk categories recorded at various AQMSs in 2017 and 2018

Health Risk Category	Roadside AQMS			General AQMS													
	Causeway Bay	Central	Mong kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun	
	Number of hours																
2017	Low	3 122	4 273	4 296	4 638	4 272	4 728	4 826	4 812	4 947	4 737	5 251	5 028	5 620	4 895	5 187	5 015
	Moderate	5 160	4 167	4 130	3 869	4 246	3 820	3 728	3 709	3 565	3 801	3 159	3 290	2 868	3 558	3 340	3 266
	High	256	165	172	120	149	125	116	111	100	128	138	155	104	141	113	160
	Very High	197	142	137	115	84	77	77	108	123	81	183	234	119	139	97	77
	Serious	21	9	21	17	8	8	12	19	24	12	22	46	42	15	11	3
2018	Low	3 532	4 273	4 110	4 702	4 421	4 491	4 947	4 812	5 126	4 733	5 278	4 647	5 969	5 294	4 973	4 876
	Moderate	4 958	4 255	4 424	3 879	4 156	4 171	3 669	3 795	3 476	3 893	3 238	3 796	2 558	3 300	3 613	3 198
	High	141	128	126	91	129	49	87	86	76	86	106	129	86	92	101	94
	Very High	123	97	90	78	50	45	52	57	67	45	115	158	123	72	72	32
	Serious	6	7	10	9	4	4	5	10	15	3	17	24	18	2	1	2

- 2 There has been improvement in the overall air quality in Hong Kong, indicating the effectiveness of the control measures implemented in recent years. Over the past 3 years (i.e. 2016-2018), the ambient concentrations of major air pollutants including respirable suspended particulates (RSP), fine suspended particulates (FSP), nitrogen dioxide (NO₂) and sulphur dioxide (SO₂) in Hong Kong had dropped by 1µg/m³ to 8µg/m³ respectively. Only the ozone (O₃) level had increased, owing to the influence of regional photochemical smog and reduction in local nitric oxide (NO) emissions from vehicles, resulting in less NO to react with and titrate O₃ in the ambient air.

The air quality situations in Tuen Mun and Yuen Long were about the same. Except that the O₃ level had increased and the levels of RSP recorded at Yuen Long AQMS in 2018 over 2016 being the same, the concentrations of FSP, NO₂ and SO₂ recorded at these 2 AQMSs had dropped by 1µg/m³ to 4µg/m³ respectively in the past 3 years. The concentrations of major pollutants in the past 3 years (2016-2018) are shown in Table 2.

Table 2: The concentrations of major pollutants recorded at Tuen Mun, Yuen Long and General AQMSs as a whole in the past 3 years

		2016	2017	2018 ^{Note 1}	Difference between 2018 and 2016
Air pollutant	AQMS	Annual average concentration (µg/m ³)			
RSP	Tuen Mun	44	43	42	-2
	Yuen Long	37	40	37	0

	General AQMSs (average)	34	35	33	-1
FSP	Tuen Mun	27	27	26	-1
	Yuen Long	23	22	20	-3
	General AQMSs (average)	22	22	20	-2
NO ₂	Tuen Mun	51	46	47	-4
	Yuen Long	46	41	43	-3
	General AQMSs (average)	47	40	39	-8
SO ₂	Tuen Mun	10	8	9	-1
	Yuen Long	10	9	8	-2
	General AQMSs (average)	9	8	6	-3
O ₃	Tuen Mun	34	43	46	+12
	Yuen Long	35	45	43	+8
	General AQMSs (average)	39	51	52	+13

Note 1: The data of 2018 are not yet validated.

- 3 The air pollutant emission reduction targets for the Pearl River Delta (PRD) region have been set by Guangdong and Hong Kong using the 2010 emission levels as the base. According to the Hong Kong Air Pollutant Emission Inventory of 2016 (the inventories for 2017 and 2018 are still under compilation), emissions of SO₂, nitrogen oxides (NO_x), RSP and volatile organic compounds (VOC) in 2016 have been reduced by 15% to 51% as compared with the levels in 2010. The emissions of the various pollutants are shown in Table 3.

Table 3: Change in emissions between 2010 and 2016

Pollutant	Emission (tonnes) ^{Note1}		Difference between 2010 and 2016	2020 Emission reduction target ^{Note2}
	2010	2016		
SO ₂	35 560	17 310	-51%	-55%
NO _x	107 080	89 640	-16%	-20%
RSP	6 090	4 350	-28%	-25%
VOC	30 830	26 240	-15%	-15%

Note 1: The figures are rounded to the nearest ten.

Note 2: Reductions are relative to 2010 emission levels.

The Hong Kong Special Administrative Region and Guangdong Provincial Governments are pressing ahead with the implementation of the emission reduction control measures under the Pearl River Delta Regional Air Quality Management Plan to attain the emission reduction targets for 2020. The key emission reduction measures implemented by Hong Kong include: requiring power plants to increase the use of natural gas in electricity generation; progressively

tightening emission caps for power plants; tightening emission standards for newly registered vehicles to Euro VI; continuing to phase out pre-Euro IV diesel commercial vehicles; and collaborating with the Guangdong Provincial Government on the implementation of ambient pollution control on vessels, etc.

In addition, to further improve regional air quality, the two governments have launched a Study on Post-2020 Regional Air Pollutant Emission Reduction Targets and Concentration Levels for Hong Kong and Guangdong, in which emission reduction targets beyond 2020 will be formulated.

- End -

CONTROLLING OFFICER'S REPLY**ENB114****(Question Serial No. 1869)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the Food Waste Recycling Projects in Housing Estates funded by the Environment and Conservation Fund (ECF), please advise on the following:

(1) The Administration has launched a funding scheme for housing estates known as the Food Waste Recycling Projects in Housing Estates since 2011. How many applications were received each year since the launching of the scheme? Among these applications, how many were approved and rejected? If there were rejected applications, what were the reasons? What was the average time required for completion of approval?

(2) Please use the table below to set out the number of participating housing estates in each of the past 5 years:

Year	Name of the housing estates	Number of residents in the housing estates	Number of households participated in food waste recycling	Amount of food waste collected	Daily capacities of the food waste composting machines	Eventual outlet of the compost produced	Approved ECF funding

(3) Have measures been carried out to encourage other housing estates to participate in the projects in the past 5 years? If yes, what were the details? Please list the expenditure and manpower involved by year.

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 201)Reply:

(1) Since the launch of the Food Waste Recycling Projects in Housing Estates funding scheme in 2011 till the end of December 2018, a total of 104 applications were received. The number of applications received each year is set out below:

Year	No. of application received
2011-12	35
2012-13	25
2013-14	17
2014-15	8
2015-16	5
2016-17	8
2017-18	4
2018-19 (as at end of December 2018)	2

Among these applications, the number of applications approved is 64, the number of applications withdrawn by the applicants is 37, the number of applications rejected is 1 and the number of applications under processing is 2. For the refusal case, it was because the applicant housing estate failed to resolve the site selection and technical problems of the composting system. The average time required for processing approved projects is about half a year.

(2) The number of participating housing estates in each of the past 5 years is set out below (the funding scheme does not require the housing estates to submit their population figures):

Approval year of the project	Name of the housing estates with approved projects in the year	Total number of households in the housing estates with approved projects in the year	Amount of food waste collected [Note 1] in the year (tonnes)	Capacities of the food waste composting machines in the year [Note 1] (tonnes)	Eventual outlet of the compost produced	Approved Environment and Conservation Fund funding (\$m)
2014-15	Aria and Scenic View	about 1 800	204	24	Most of the compost was used by the participating housing estates for	2.25

Approval year of the project	Name of the housing estates with approved projects in the year	Total number of households in the housing estates with approved projects in the year	Amount of food waste collected [Note 1] in the year (tonnes)	Capacities of the food waste composting machines in the year [Note 1] (tonnes)	Eventual outlet of the compost produced	Approved Environment and Conservation Fund funding (\$m)
					greening of the housing estates and was given to the residents free of charge for planting purposes.	
2015-16	Hong Lok Yuen (extension project), Park Island (extension project), Rhythm Garden, Sereno Verde (extension project) and Woodland Crest (extension project)	about 11 600	292	32	Most of the compost was used by the participating housing estates for greening of the housing estates and was given to the residents free of charge for planting purposes.	1.97
2016-17	Laguna Verde (extension project), Manhattan Hill (extension project), Pacific Palisades	about 11 000	469	54	Most of the compost was used by the participating housing estates for greening of the housing estates and	2.20

Approval year of the project	Name of the housing estates with approved projects in the year	Total number of households in the housing estates with approved projects in the year	Amount of food waste collected [Note 1] in the year (tonnes)	Capacities of the food waste composting machines in the year [Note 1] (tonnes)	Eventual outlet of the compost produced	Approved Environment and Conservation Fund funding (\$m)
	(extension project), Residence Bel-Air and The Parcville (extension project)				was given to the residents free of charge for planting purposes.	
2017-18	The Capitol, LOHAS Park (extension project), Tierra Verde (extension project) and Siu Lun Court [Note 2]	about 9 800	485	64	Most of the compost was used by the participating housing estates for greening of the housing estates and was given to the residents free of charge for planting purposes.	1.78
2018-19 (as at end of December 2018)	Wonderland Villas (extension project), Rhythm Garden (extension project), Chi Fu Fa Yuen and Allway	about 12 000	342 [Note 3]	31 [Note 3]	Most of the compost was used by the participating housing estates for greening of the housing estates and	3.27

Approval year of the project	Name of the housing estates with approved projects in the year	Total number of households in the housing estates with approved projects in the year	Amount of food waste collected [Note 1] in the year (tonnes)	Capacities of the food waste composting machines in the year [Note 1] (tonnes)	Eventual outlet of the compost produced	Approved Environment and Conservation Fund funding (\$m)
	Gardens				was given to the residents free of charge for planting purposes.	

[Note 1] The figures do not necessarily represent the amount of food waste collected/the capacities of the food waste composting machines in the approved projects for that year. Since the housing estates had to make preparations, such as recruiting staff, arranging tenders for the rental of composters, after approval of the projects, food waste recovery activities might not be commenced in the same year. Moreover, the recipient housing estates had to carry on food waste recovery activities for 24 months, and the projects approved in earlier years would continue to recover food waste after commissioning. Hence, the relevant figures include those projects approved in earlier years and were still in operation.

[Note 2] Excluding Hilton Plaza which application was approved in May 2017 but withdrawn in the same month. This housing estate had not commenced any food waste recycling activities before withdrawal of its application.

[Note 3] Figures as at January 2019.

(3) To encourage other housing estates to participate in the project, the Environmental Protection Department (EPD) has set up a help-desk service to assist housing estates which are interested to participate in the scheme to make application and provide technical support to them. Apart from setting up a website and a hotline to answer enquiries, the EPD also provides a technical guideline; assists the housing estates to identify suitable locations for installing the food waste composting machines and conduct mechanical inspection; provides professional and technical advices to housing estates during planning and implementation stages; and conducts evaluation of the performance of the food waste treatment facility and the effectiveness and outcomes of the scheme. In addition, the EPD organised 4 briefing sessions/sharing sessions from 2013 to 2017 to provide technical information, introduce application procedures and invite successful participating housing estates to share their practical experiences in food waste recycling so as to encourage other housing estates to participate in the Food Waste Recycling Projects in Housing Estates funding scheme. As the relevant work is an integral part of the EPD's work on food waste management, no separate breakdown on the staff establishment and expenditure involved is available.

- End -

CONTROLLING OFFICER'S REPLY

ENB115

(Question Serial No. 1871)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the packaging materials of retailers and manufacturers as well as the plastic shopping bag charging scheme (the charging scheme):

(1) In the past 5 years, what were the quantities of packaging materials from various retailers and manufacturers (including cling film and plastic food containers) and waste plastic bags from major retail categories disposed of at landfills each year?

(2) Has the Administration assessed whether the amount of plastic shopping bags in the territory has decreased since the introduction of the charging scheme? If yes, what are the details? If no, what are the reasons?

(3) What measures will be taken by the Administration in 2019-2020 to encourage manufacturers to reduce the use of packaging materials? What are the expenditure and manpower to be involved?

(4) Please set out in the following table the number of cases received or identified by the Administration each year regarding violation of the Product Eco-responsibility Ordinance and their details;

Year	Number of warning letters issued	Number of fixed penalty notices issued	Number of prosecutions made	Number of convictions made	Total fines

(5) Please provide the number of inspections conducted, and the expenditure and manpower resources involved in each of the past 5 years for enforcing the charging scheme by the Administration; and

(6) When reviewing the charging scheme, will the Administration consider conducting a study on regulating the packaging of retail products (including plastic packaging bags used in online shopping) in order to extend the scope of regulation of the charging scheme (to include like plastic bags used in online shopping, packaging for fruits and vegetables at supermarkets, etc.)?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 203)

Reply:

(1) & (2) The Environmental Protection Department (EPD) does not compile statistics on individual disposal quantity of packaging materials, cling film or plastic food containers, etc.

Plastic food container is a type of plastic dining wares/polyfoam dining wares. From the reports on “Monitoring of Solid Waste in Hong Kong” compiled by the EPD, the statistics on the disposal of plastic dining wares and polyfoam dining wares between 2013 and 2017 are shown in the table below. The relevant statistics for 2018 are still under compilation.

Disposal quantity (tonnes per day)	2013	2014	2015	2016	2017
Plastic dining wares	101	122	131	154	166
Polyfoam dining wares	43	43	48	39	39

Regarding plastic shopping bags (PSBs), according to the landfill survey conducted by the EPD in 2005, some 8 billion PSBs were disposed of at landfills that year.

The first phase of the PSB charging scheme was implemented on 7 July 2009, covering some 3 000 registered retail outlets that were supermarkets, convenience stores and medicare and cosmetics stores. According to the estimation from the disposal survey conducted before the implementation of the scheme in mid-2009, and one year after the implementation of the first phase in mid-2010, the number of PSBs disposed of at landfills originated from the 3 retail categories has dropped significantly by over 75% from some 660 million to 150 million.

The charging scheme was fully extended to cover the entire retail sector on 1 April 2015. The total disposal in that year (i.e. 2015) was 3.93 billion, which was a marked reduction of about a quarter from 5.24 billion in the previous year. The total disposal in 2017 was 4.42 billion, representing a year-on-year increase of 3%, but there was still a 15% reduction as compared to 2014 when the scheme was not yet fully implemented. The relevant figures of the PSB disposal survey in the past 5 years are set out in the Annex.

(3) The EPD liaises with supermarkets, the retail and courier sectors from time to time, advising the sectors to adopt relevant waste reduction measures, such as avoiding the use of unnecessary packaging materials and using greener materials to replace plastics for packaging. We will continue to encourage different stakeholders to practise simple packaging through publicity, education and other channels. We will continue to adopt a multi-pronged approach to promote the importance of waste reduction at source. In

parallel, we are actively preparing for the introduction of the municipal solid waste charging scheme to provide financial incentives to further encourage the public and the commercial and industrial sectors to reduce waste at source. The above work is part of the work of the EPD, and the manpower and expenditure involved are absorbed by its existing establishment and resources. There is no breakdown of the manpower and expenditure involved in this aspect.

(4) & (5) The legislation relating to the full implementation of the PSB charging scheme, i.e. the Product Eco-responsibility (Amendment) Ordinance 2014 (the Ordinance), was implemented on 1 April 2015. The number of inspections conducted by the EPD under the Ordinance and the associated enforcement statistics are as follows:

Year	No. of inspections	No. of warnings issued	No. of fixed penalty notices ^(Note 1)	No. of prosecution by summons	No. of convictions	Total fines ^(Note 2)
2015 (Apr-Dec)	43 163	82	141	0	0	\$282,000
2016	30 967	0	174	3	3	\$362,000
2017	26 266	0	154	15	14	\$371,800
2018	21 480	0	122	5	5	\$255,900
2019 (Jan-Feb)	1 520	0	9	0	0	\$18,000
Total (April 2015-Feb 2019)	123 396	82	600	23	22	\$1,289,700

Note 1: The fixed penalty system was introduced since April 2015.

Note 2: Fines include fixed penalty and fines of convicted summonses.

The enforcement of the PSB charging scheme is part of the EPD's routine enforcement work. The EPD will arrange enforcement staff to conduct inspections and take enforcement actions according to the actual circumstances, and will also deploy contract staff to support the inspections and screening checks. There is no breakdown on the relevant work.

(6) As the disposal of PSBs has been on the rise for 2 consecutive years and the charging scheme has been in operation for some time, the Government will review the effectiveness of the scheme in reducing the use and disposal of PSBs. Among other things, the existing minimum charge of 50 cents has not been adjusted since the voluntary scheme had been in place before the implementation of the first phase of the charging scheme in 2009, we will explore whether there is a need to make any adjustments. In addition, there are also views on whether the existing exemptions mainly for food hygiene reasons (especially the use of PSBs to carry frozen or chilled foodstuff) have to be tightened, so as to further encourage reduction in the use of PSBs. Along these directions, we are reviewing the operation and effectiveness of the charging scheme to consider whether there is room for further improvement. We plan to consult the public on the findings of the review and the way forward later this year.

Findings of the Surveys on Disposal of PSBs: Estimated annual disposal by number of bags

	2013		2014		2015 ⁽³⁾		2016		2017	
Retail categories ⁽¹⁾	Million/Year	%	Million/Year	%	Million/Year	%	Million/Year	%	Million/Year	%
Supermarkets	41.24	0.89%	59.40	1.13%	54.85	1.40%	32.26	0.75%	36.78	0.83%
Convenience stores	15.13	0.33%	15.54	0.30%	18.71	0.48%	35.60	0.83%	40.44	0.92%
Medicare and cosmetic stores	59.91	1.30%	80.22	1.53%	27.76	0.71%	37.20	0.87%	35.23	0.80%
<i>Sub-total Retail categories in the first phase</i>	<i>116.28</i>	<i>2.52%</i>	<i>155.15</i>	<i>2.96%</i>	<i>101.31</i>	<i>2.58%</i>	<i>105.06</i>	<i>2.45%</i>	<i>112.45</i>	<i>2.55%</i>
Other retail categories	849.45	18.37%	914.68	17.45%	704.67	17.93%	697.71	16.24%	793.79	17.96%
<i>Sub-total All retail categories</i>	<i>965.73</i>	<i>20.89%</i>	<i>1069.84</i>	<i>20.41%</i>	<i>805.99</i>	<i>20.52%</i>	<i>802.77</i>	<i>18.69%</i>	<i>906.24</i>	<i>20.51%</i>
Source unidentified ⁽²⁾	3 656.58	79.11%	4171.99	79.59%	3 124.18	79.49%	3 493.71	81.32%	3 512.26	79.49%
Total	4 622.31	100 %	5 241.82	100 %	3 930.17	100%	4 296.48	100%	4 418.50	100%

(Figures may not add up to total due to rounding off)

Notes:

1. The first phase of the PSB charging scheme was implemented from 7 July 2009 to 31 March 2015, applicable to registered retailers, covering mainly large chain supermarkets, convenience stores and medicare and cosmetic stores. However, PSBs bearing the characteristics of supermarkets, convenience stores or medicare and cosmetic stores found in the disposal surveys might be distributed by supermarkets, convenience stores or medicare and cosmetic stores which were not registered retailers.
2. PSBs bearing no logos or signs that show their sources or unable to be categorised will be categorised as “source unidentified”.
3. Since 1 April 2015, the PSB charging scheme has been extended to cover the entire retail sector.

- End -

CONTROLLING OFFICER'S REPLY**ENB116****(Question Serial No. 1872)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

On promoting the use of electric vehicles (EVs):

- (1) Please set out in the following table the numbers of various types of EVs first registered and registered in Hong Kong in each of the past 5 years:

Type of EVs	Number of first registered vehicles				
	2014	2015	2016	2017	2018
Private car					
Goods vehicle					
Bus					
Light bus					
Taxi					
Motorcycle					
Motor tricycle					

Type of EVs	Number of registered vehicles				
	2014	2015	2016	2017	2018
Private car					
Goods vehicle					
Bus					
Light bus					
Taxi					
Motorcycle					
Motor tricycle					

(2) Will the Administration follow the practice of other countries by setting a specific timetable and target for progressively phasing out fuel-driven vehicles to achieve the goal of zero emission on roads? If yes, what are the details? If no, what are the reasons?

(3) Will the Administration set a specific timetable and target for popularising EVs? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 204)

Reply:

(1) The numbers of various types of electric vehicles (EVs) first registered and registered in Hong Kong in the past 5 years are as follows:

Type of EVs	No. of first registered vehicles in the year				
	2014	2015	2016	2017	2018
Private car	845	2 607	3 020	3 860	471
Goods vehicle	9	11	11	12	16
Bus	4	12	5	18	5
Light bus	0	0	4	1	0
Taxi	15	0	1	0	0
Motorcycle	25	0	2	2	0
Motor tricycle	0	0	0	0	0
Special purpose vehicle	2	7	4	11	5

Type of EVs	No. of registered vehicles as at year end				
	2014	2015	2016	2017	2018
Private car	1 160	3 806	6 829	10 666	11 080
Goods vehicle	56	67	76	86	95
Bus	7	19	24	40	43
Light bus	4	4	7	7	6
Taxi	48	8	1	1	0
Motorcycle	50	50	45	45	19
Motor tricycle	0	0	0	0	0
Special purpose vehicle	113	113	107	105	104

Note: Government vehicles are not included in the numbers as they are not required for registration.

(2) The Government will continue to encourage the public to use new energy vehicles in the hope that all newly registered private cars (PCs) in Hong Kong will ultimately be new energy vehicles in the long run. However, as Hong Kong does not have its own automotive industry and all vehicles are imported, the Government must be careful when considering the plan to cease the sale of petrol and diesel vehicles to ensure that there is adequate supply of EVs suitable for use in local environment and situation. As the first step, we may consider ceasing the first registration of diesel PCs subject to consultation with stakeholders. Similarly, the Government will also consider whether the first registration of diesel motor cycles should be ceased.

(3) Hong Kong is a free market. The Government's policy on promoting EVs is to establish measures to encourage and assist market development. In fact, the sales of EVs can be affected by various factors, such as local conditions, development of EVs and the related technologies, economic situations, EV prices, vehicle owners' preferences and availability of suitable EV models and their supply, which are not predictable by the Government.

- End -

CONTROLLING OFFICER'S REPLY**ENB117****(Question Serial No. 1873)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

It is mentioned in the Matters Requiring Special Attention in 2019-20 that the Environmental Protection Department will continue to encourage the transport trade to make use of the Pilot Green Transport Fund (Fund) to try out green innovative transport technologies, and review the current scope of the Fund. In this connection, please advise on the following:

(1) Please set out the number of applications received each year since the establishment of the Fund in 2011. Among these applications, how many were approved and rejected respectively? If there were rejected applications, what were the reasons? What was the average time required for completing the vetting?

(2) Please use the table below to set out the details of the above approved applications.

Year of application approved	Green innovative transport technologies on trial	Target of the technologies concerned and scope of trial	Amount of funding approved under the Fund	Trial results (if any)

(3) Have measures been taken to encourage the transport sectors to make use of the Fund to try out green innovative transport technologies in the past 5 years? If yes, what were the details? Please list the expenditure and manpower involved by year.

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 205)

Reply:

(1) Statistics on the number of applications received each year since the establishment of the Pilot Green Transport Fund (Fund) in 2011 are as follow:

Year	No. of applications	No. of approvals	No. of rejections	No. of withdrawals/ terminations ⁶	Reasons for rejection
2011	20	8	2	10	There were 2 applications for trial of electric motorcycles, but electric motorcycle is not a vehicle type eligible for subsidy under the Fund.
2012	50	21	3	26	3 applications for trial of retrofitting goods vehicles with fuel saving and emission reduction devices were rejected as the applicants could not provide test reports on the proposed products to prove their viability.
2013	29	18	2	9	2 applications for trial of retrofitting liquefied petroleum gas taxis and diesel public light buses with solar air-conditioning systems were not compliant with the technical criteria as the applicants could not provide test reports on the fuel consumption of the proposed products to prove their performance.
2014	34	12	0	22	Not applicable
2015	25	18	0	7	Not applicable
2016	11	10	0	1	Not applicable
2017	64	22	41	1	There were 33 applications for trial of hybrid light buses and 20 applications for trial of single-deck hybrid buses. The Pilot Green Transport Fund Steering Committee ⁷ (the Committee), taking into account substantive competition in bidding was not existing as only one model for hybrid single-deck bus and one model for hybrid light bus are currently available in Hong Kong, both of the two manufacturers could not provide information on the actual operational performance of their models in the local or overseas environment for reference, and 6 trials involving a total of 7 vehicles
2018	44	30	12	2	

⁶ The applicants decided to withdraw or terminate their applications due to their own business considerations.

⁷ The Pilot Green Transport Fund Steering Committee is chaired by a non-government official with members comprising representatives elected by the transport sectors, experts and academics in green innovative transport technologies, as well as representatives of relevant government departments.

					of these two types had been approved under the Fund early on, the Committee considered that the number of trials should be restricted at the present stage to avoid placing too much emphasis on certain models whose performance have not been verified under actual operational environment. The Committee will consider whether further trials of these two models of vehicles should be supported depending on future trial results.
Total	277	139	60	78	

Currently, after receiving applications, the Fund Secretariat (i.e. the Environmental Protection Department (EPD)), will verify the information submitted by the applicants and their eligibilities. If all the required information is properly provided, the verification can generally be completed in two weeks. The applications will then be considered in the Committee meetings to be held quarterly on average. Applicants will generally be notified of the result within several days after the consideration of the Committee.

(2) Details of the applications approved are as follows:

Technology under trial and no. of products	Major target for application of technology	Year of approval	Amount approved (\$m)
Electric light goods vehicle (77 units)	Goods vehicle operators for logistics, environmental recycling, waste treatment, construction industry, retail and wholesale, etc.	2011 - 2018	23
Electric medium goods vehicle (tractor) (1 unit.)	Container logistics operators	2018	2
Single-deck electric bus (21 units)	Non-franchised public bus operators	2011, 2012, 2017	59
Electric taxi (3units)	Taxi operators	2012	3
Electric light bus (3 units)	Hotel shuttle bus and campus light bus operators	2013, 2015	3
Hybrid light goods vehicle (48 units)	Goods vehicle operators for logistics, freight, gardening service, environmental recycling, waste treatment, retail and wholesale, etc.	2012 - 2018	15
Hybrid medium goods vehicle (28 units)		2012 - 2018	9
Single-deck hybrid bus (2 units)	Non-franchised public bus operators	2017	5
Hybrid light bus (11 units)	Public light bus operators	2012, 2017	9

Solar air-conditioning system (bus) (1 set)	Shuttle bus operators	2013	0.15
Electric inverter air-conditioning system (bus) (4 sets)	Non-franchised public bus operators	2015	0.45
Diesel-electric propulsion system (ferry) (3 sets)	Ferry operators	2014, 2018	9
Seawater scrubber (ferry) (1 set)	Ferry operators	2014	1

The trial results of various types of technologies as at the end of February 2019 are as follows:

EVs

According to the current trial results, high production cost, limited service life, long charging time and/or low energy density of the batteries of electric commercial vehicles (e-CVs) on the local market are the key constraints for e-CVs to become popular. The hilly terrain in Hong Kong and the need to provide air-conditioning during summer driving also reduce the driving range of e-CV batteries. Therefore, most of the e-CVs are yet to be able to cope with the requirements of the local transport sectors in respect of driving range and charging time. All the 3 electric taxis that were once trialed under the Fund have been re-registered as private cars after completion of the trials because taxis generally run almost a whole day and under normal operation cannot spare 4 hours a day for charging. Electric light buses and single-deck buses also have experienced similar problems. The electric light buses and single-deck buses trialed under the Fund, after a full charge taking 4 hours, had a driving range lower than the respective daily mileages of a typical public light bus and a typical single-deck bus.

The trial results also showed that electric light goods vehicles (e-LGVs) are more likely to prevail than other e-CVs in Hong Kong and are suitable for operators who require relatively lower daily mileage and payload because batteries of these vehicles can be topped up outside operation hours. We have organised experience sharing workshops for the transport sectors suitable for adopting this vehicle type to promote the use of e-LGVs.

For those e-CVs trialed under the Fund, they could save 31% to 91% of their energy cost on an individual vehicle basis as compared with their conventional counterparts.

Hybrid vehicles

Hybrid vehicles could operate without charging up their batteries by an external source, so their operation is similar to that of conventional vehicles. The transport sectors have thus less doubt about trialing hybrid commercial vehicles under the Fund. However, the hybrid commercial vehicle models on the local market are limited, with only 2 hybrid light goods vehicle models, 2 hybrid medium goods vehicle models, 1 hybrid light bus model and 1 hybrid single-deck bus model, all of which have already been trialed under the Fund.

Higher fuel economy is the major merit of hybrid vehicles over the conventional vehicles, thereby reducing operating cost and air pollutant emissions. However, the fuel economy of

a hybrid vehicle depends on the operation routes. A route requiring frequent start-stop will harness better the hybrid drive-train. If a route is dominated by highway driving, a hybrid vehicle can hardly outperform its conventional counterpart in fuel economy. The trial results showed that the hybrid goods vehicles incurred fuel cost saving ranging from 4% to 32% as compared with their conventional counterparts whilst the corresponding figure for the hybrid light buses was not more than 4%. The latter had a poorer fuel economy performance which might be caused by inadequate cooling for their batteries. A new model has been introduced by the manufacturer of the hybrid light buses to replace its old model and the new model is being trialed under the Fund.

Ferries

Trials of 1 diesel-electric propulsion (DEP) system for a ferry (retrofitted ferry) and 1 seawater scrubber installed on the same ferry were completed under the Fund.

Results of the trial showed that, compared with the diesel system before retrofitting of the ferry, the DEP system could save about 2.4% of fuel, and the emissions of nitrogen oxides and hydrocarbons (HC) as well as the smoke opacity could be reduced by about 69%, 80% and 68% respectively.

As for the seawater scrubber, its operation increased the total fuel consumption of the ferry by about 2.4%. When adopting the DEP system, the seawater scrubber could further reduce HC emission and smoke opacity by 5% respectively. As for the emission of sulphur dioxide (SO₂), the trial result showed that since the Government's tightening of statutory upper limit for sulphur content in fuel from 0.5% to 0.05% in 2014, SO₂ emission of the ferry has been reduced by 83%, and the seawater scrubber could only further reduce it by 4%. In conclusion, compared with the effectiveness of using the DEP system and tightening of statutory sulphur content in fuel, the emission reduction effect of the seawater scrubber became insignificant, and its operation would also increase the total fuel consumption of the ferry.

Other technologies

The trial of 1 solar air-conditioning system for a bus was also completed under the Fund, with the result indicating about 10% saving of fuel costs. In addition, the trial result of 1 electric inverter air-conditioning system for a bus indicated about 17% saving of fuel cost.

(3) The EPD has been sharing with the transport sectors and those parties who are interested in green innovative transport technologies the trials of these technologies in Hong Kong and their results through different activities, and encouraging the trades to make use of the subsidy of the Fund to try out green innovative transport technologies. The key activities in the past 5 years are as follows:

Date	Trades that participated	No. of participants
December 2014	Transport trade, academic institutions, charitable organisations, hotels, hospitals, non-governmental organisations and private sector	About 130 persons
July 2015	Transport trade, academic institutions, charitable organisations, hospitals, non-governmental organisations and private sector	About 100 persons

July 2016	Airport service industry (Hong Kong Airline Service Providers Association)	About 20 companies
December 2016	Ferry trade (Hong Kong and Kowloon Motor Boats and Tug Boats Association)	About 9 companies
September 2017	Freight trade, academic institutions, charitable organisations, non-governmental organisations and small and medium enterprises	About 70 persons
March 2018	Transport trade, academic institutions and private organisations	About 30 persons

In addition, the EPD will continue to upload the trial reports to the EPD website to share results of the trials with the relevant trades and interested parties.

The work of the Fund is absorbed with the existing resources of the EPD. In addition, 4 five-year (until end of March 2021) time-limited posts (including 1 Senior Environmental Protection Officer, 1 Environmental Protection Officer, 1 Environmental Protection Inspector and 1 Assistant Clerical Officer) have been created to undertake the relevant work. The above promotional activities are part of the work of the Fund.

- End -

CONTROLLING OFFICER'S REPLY**ENB118****(Question Serial No. 1878)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (3) NoiseControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the construction noise control measures:

(1) Please use the table below to set out the numbers of Construction Noise Permits (CNPs) issued in each of the past 5 years:

Year	CNP for general construction works			CNP for percussive piling		
	Granted	Refused	Cancelled	Granted	Refused	Cancelled

(2) Please use the table below to set out the numbers of CNPs issued for piling by region and by operating hours in each of the past 5 years:

Year	Operating hours			Region		
	3 hours	5 hours	12 hours	New Territories/ Outlying Islands	Kowloon	Hong Kong Island

(3) What were the statistics on the number of complaints received by the Government about construction noise in each of the past 5 years and their details? Among the complaints received, please specify whether the works involved had been granted a CNP beforehand, the number of prosecutions instituted for violation of the Noise Control Ordinance (Cap. 400) and the penalties imposed.

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 209)Reply:

(1) The numbers of Construction Noise Permits (CNPs) issued by the Environmental Protection Department (EPD) in each of the past 5 years are as follows:

Year	CNP for general construction works			CNP for percussive piling		
	Granted	Refused	Cancelled	Granted	Refused	Cancelled
2014	4 648	889	525	144	0	21
2015	4 181	924	382	152	0	16
2016	4 249	734	423	135	0	12
2017	3 756	605	437	144	0	19
2018	3 435	654	410	134	0	13

(2) The numbers of CNPs issued by the EPD for piling by region and by operating hours in each of the past 5 years are as follows:

Year	Operating hours			Region		
	3 hours	5 hours	12 hours	New Territories/ Outlying Islands	Kowloon	Hong Kong Island
2014	117	4	23	54	61	29
2015	124	9	19	53	76	23
2016	122	4	9	70	41	24
2017	119	12	13	77	51	16
2018	109	8	17	47	64	23

(3) The statistics on the numbers of complaints received by the EPD about construction noise, prosecutions and fines in each of the past 5 years are as follows:

Year	No. of complaints about construction noise		No. of prosecutions and fines		
	General construction works	Percussive Piling	Involving not holding a valid CNP	Involving non-compliance with CNP conditions	Total fine
2014	906 (268)	176 (120)	49	27	\$981,000
2015	1 017 (407)	171 (125)	51	16	\$826,200
2016	1 203 (490)	184 (138)	49	40	\$1,160,000
2017	1 308 (249)	185 (131)	69	26	\$985,000
2018	1 251 (220)	176 (126)	70	42	\$841,000

Note: The figures in brackets show the numbers of the works involved that had been granted a CNP beforehand.

- End -

CONTROLLING OFFICER'S REPLY

ENB119

(Question Serial No. 1879)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is indicated by a green group that pollution problem caused by marine refuse is getting serious, and most of the marine refuse is plastics generated on land, such as disposable plastic food containers, tableware and straws. In this connection, please advise on the following:

(1) What is the latest progress of the feasibility study on producer responsibility scheme (PRS) on plastic containers? What are the details of the study in 2019-2020? What are the expenditure and manpower to be involved?

(2) What is the latest progress of the study to formulate proposals applicable to Hong Kong regarding the bans on personal care and cosmetic products containing microplastics? What are the details of the study in 2019-2020? What are the expenditure and manpower to be involved?

(3) What are the latest progress and details of the study to control or ban disposable plastic tableware? What is the expenditure to be involved in 2019-2020? When is it expected to be completed?

(4) Besides the above plans to reduce plastics at source, are there other measures and policies for which the Administration has earmarked provisions? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 210)

Reply:

(1) The Government commissioned a feasibility study on the introduction of a producer responsibility scheme (PRS) on plastic product containers, targeting those carrying beverages or personal care products, in October 2017. Taking into account the recommendations of the consultant, the Government decided to accord priority to

plastic beverage containers, which account for about 60% of overall waste plastic containers disposed of in Hong Kong, and proceed first with the introduction of a PRS for this type of containers. We plan to consult the public on the proposed way forward in 2019. The consultant will continue to conduct the feasibility study on the PRS on plastic personal care product containers and submit a report to the Government. The estimated expenditure for the consultancy study in the financial year 2019-20 is about \$2.2 million. As this work item is part of the work of the Waste Management Policy Division of the Environmental Protection Department (EPD), there is no separate breakdown of the manpower and expenditure involved in such work.

- (2) Regarding the control on personal care and cosmetic products containing microbeads, we are conducting a consultancy study to explore suitable strategies for Hong Kong. The consultant has reviewed the latest trend of overseas control practices on personal care and cosmetic products containing microbeads, and has collected and analysed information on the local commercial market of personal care and cosmetic products. The consultant is soliciting stakeholders' views. After consolidation of all the findings of the study and the views collected, the consultant will submit a report to the Government within this year with recommendations on the control options applicable to Hong Kong. The consultancy fee for the study is about \$800 000 in 2019-20. The EPD will carry out the relevant study with its existing manpower and a breakdown on the manpower establishment involved is not available.
- (3) We are commencing a study on the feasibility, scope and mechanism of controlling or banning disposable plastic tableware. The EPD will consider possible control measures for disposable plastic tableware in Hong Kong in the long run, including the scope and means of control or ban, the applicable substitutes as well as the appropriate regulatory mechanism. We understand that circumstances and environment may vary across countries or places, and we will draw reference from specific situations worldwide on the control of disposable plastic tableware and their means of implementation, and consult the relevant trades and stakeholders. Based on the findings of our study and analysis, we will draw up a proposal that is suitable for implementation in Hong Kong in the long run. The study is scheduled for completion in 2020, involving an expenditure of about \$3 million.
- (4) Apart from the work mentioned in (1) to (3) above, the EPD plans to roll out a two-year Pilot Scheme on Collection and Recycling Services of Waste Plastics in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin) to provide free collection service for waste plastics from non-commercial and non-industrial sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts, with a view to gaining practical experience before expanding the service to the whole territory. The EPD will hire contractors through service contracts to collect waste plastics direct from the above-mentioned premises for further treatment in recycling process, then produce recycled raw materials or products to be exported or supplied to the local market so as to ensure that the waste plastics collected are properly handled. The EPD is tendering the waste plastics collection service contract of the Eastern District, with a view to rolling out the services this year. We will also invite tenders for waste plastics collection service in Kwun Tong and Sha Tin districts one after another later.

In 2019-20, the 3 pilot schemes will be undertaken by 18 non-directorate professional staff (including Environmental Protection Officers and Environmental Protection Inspectors) and the estimated total expenditure is about \$72 million.

In addition, the Government will continue to adopt a multi-pronged approach, including taking forward the municipal solid waste charging, promoting source separation of waste and clean recycling, setting up a Community Recycling Network and Community Green Stations, installing more water dispensers/filling stations in government venues to inculcate a “bring your own bottle” culture and reduce the consumption of plastic bottled water, launching a pilot scheme on the application of reverse vending machine, enhancing the waste reduction and recycling performance of large-scale and community events, and further promoting and facilitating active participation of the public and the commercial and industrial sectors in waste reduction at source, including reducing the use of plastics, with existing manpower and resource. Separately, as the disposal of plastic shopping bags (PSBs) has been on the rise for 2 consecutive years and the PSB charging scheme has been in operation for some time, the EPD will review the effectiveness of the scheme in reducing the use and disposal of PSBs. We plan to consult the public on the findings of the review and the way forward later this year. The above work is part of the work of the EPD, and the manpower and expenditure involved are absorbed by existing establishment and resources. There is no breakdown of the manpower and expenditure involved in this aspect.

- End -

CONTROLLING OFFICER'S REPLY

ENB120

(Question Serial No. 1880)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

In the light of the Mainland's tightened control for import recyclables which has commenced since January 2018 and the municipal solid waste charging which is soon to be implemented, please advise on the following:

(1) Please provide the work progress of the pilot schemes on central collection of plastics and commercial and industrial food waste, as well as the locations involved. When are the schemes expected to be extended to all 18 districts in Hong Kong? What are the expenditures, manpower arrangements and the total amount of plastics and food waste to be processed in 2018-2019 and 2019-2020?

(2) For some types of plastics which are difficult to be recycled, such as tableware and cling film, what are the Administration's current policies on plastics reduction? Will it plan to follow other areas, like the European Union, to restrict and ban the use of disposable plastics which are difficult to be recycled in the long run? If yes, what are the details? If no, what are the reasons?

(3) Since plastics are difficult to be degraded, has the Government studied the future staff cost and environmental cost implications on Hong Kong in processing such disposable plastics which are difficult to be recycled? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 211)

Reply:

(1)

Pilot Scheme on Collection and Recycling Services of Waste Plastics

The Environmental Protection Department (EPD) plans to roll out a two-year Pilot Scheme on Collection and Recycling Services of Waste Plastics in 3 different districts (i.e. Eastern

District, Kwun Tong and Sha Tin) to provide free collection service for waste plastics from non-commercial and non-industrial sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts, with a view to gaining practical experience before expanding the service to the whole territory. The EPD will hire contractors through service contracts to collect waste plastics direct from the above-mentioned premises for further treatment in recycling process, then produce recycled raw materials or products to be exported or supplied to the local market, so as to ensure that the waste plastics collected are properly handled. The EPD is tendering the waste plastics collection service contract of the Eastern District, with a view to rolling out the services this year. We will invite tenders for waste plastics collection service in Kwun Tong and Sha Tin districts one after another later. Having regard to the experience gained in the said pilot scheme and the progress of development of the producer responsibility scheme on plastic beverage containers, we will expand the service to the whole territory progressively.

In 2018-19, the pilot scheme will be undertaken by 9 non-directorate professional staff (including Environmental Protection Officers and Environmental Protection Inspectors). To cope with the contract management and monitoring work in future, the relevant manpower for 2019-20 will be increased to 18 staff. The estimated total expenditure on the Pilot Scheme on Collection and Recycling Services of Waste Plastics in the financial year 2019-20 is about \$72 million. As the pilot scheme is still at its preparatory stage, the amount of waste plastics to be processed is not available for the time being.

Pilot Scheme on Collection of Food Waste from Commercial and Industrial Sources

The Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. The pilot scheme will mainly involve collection of food waste generated by commercial and industrial (C&I) sectors, including the continued provision of food waste collection service for public markets and cooked food venues under the Food and Environmental Hygiene Department (FEHD), as well as wet markets and shopping centres managed by the Hong Kong Housing Authority (HA). The pilot scheme will also include free food waste collection service for all primary and secondary schools, and tertiary institutions in Hong Kong starting from the second quarter of this year through those school lunch suppliers or canteens of the tertiary institutions which are interested to join.

Organic Resources Recovery Centre Phase 1 (O • PARK1) has been receiving food waste for testing and commissioning since 1 July 2018. Since then, 40 public markets and cooked food venues under the FEHD and 9 shopping centres and wet markets under the HA have started source separation and collection of food waste. The food waste collection contractor of the FEHD delivers source-separated food waste from the above 49 premises to the O • PARK1 for treatment every day. In addition, to further promote recycling of food waste and enhance the quality of food waste collected, the EPD has arranged a contractor to provide suitable guidance and training for operators of public market stalls, cooked food venues and shopping centres, including advising them on how to practise source separation, collection and delivery of food waste. We are discussing with the relevant government departments on extending the free food waste collection service to other markets, cooked food venues and shopping centres under the FEHD and the HA and other facilities (for

example, more wholesale markets under the Agriculture, Fisheries and Conservation Department and hospitals under the Hospital Authority, etc.) under the above pilot scheme.

Regarding the provision of free food waste collection service for school lunch suppliers, in February this year, the EPD invited school lunch suppliers to participate in the above pilot scheme by collecting the food waste generated from their supply of lunch for primary and secondary schools and food left uneaten by students, and delivering such food waste to the O • PARK1. About 10 school lunch suppliers have indicated their interest in participating in the above pilot scheme at present, with their plants located in Sha Tin, Tai Po, Tuen Mun, Yuen Long, Kwai Tsing, Kwun Tong, Wan Chai and Chai Wan. The contractor of the O • PARK1 engaged by the EPD is getting in contact with the interested school lunch suppliers to discuss the food waste collection arrangements. It is expected that the food waste collection service can be launched in the second quarter of this year.

In addition, the EPD is getting in touch with the canteens of the tertiary institutions to discuss various feasible options to provide free food waste collection service (covering transportation) for them under the pilot scheme. Most tertiary institutions have indicated their interest in participating in the above pilot scheme.

Additionally, we will allocate a portion of the treatment capacities of the O • PARK1 and the “food waste/sewage sludge anaerobic co-digestion” trial scheme at the Tai Po Sewage Treatment Works (STW) to provide free collection and recycling services for a portion of the domestic food waste. Priority will be given to food waste from housing estates with experience in food waste separation and recycling, such as the 35 private housing estates that have participated in the “Food Waste Recycling Projects in Housing Estates” under the Environment and Conservation Fund (ECF).

Apart from that, we plan to extend the “food waste/sewage sludge anaerobic co-digestion” trial scheme to cover the Sha Tin STW for commissioning in 2022. Having regard to the experience gained from the above pilot scheme, we will conduct a trial on collection of domestic food waste in Sha Tin to test the operational and facilitation requirement for carrying out separation at source, collection and recycling of domestic food waste at different types of private and public housing estates, villages and domestic/commercial buildings. We are seeking funding approval from the Legislative Council for the Organic Resources Recovery Centre Phase 2 (ORRC2). Upon commissioning of the ORRC2, we will not only be able to further extend the free food waste collection service to more C&I establishments, but will also allocate part of its treatment capacity to recycle the domestic food waste collected from the households and villages within the area.

The implementation schedule of the above free food waste collection services will largely depend on the completion dates of the food waste recycling facilities. With the gradual completion of such facilities in future, we plan to extend the food waste collection services to cover all districts and sectors in Hong Kong in a prompt manner.

The pilot scheme to provide free food waste collection service will be implemented from the financial year 2019-20, with the expenditure involved in the year estimated at about \$55 million. In 2019-20, the EPD will create 7 non-directorate professional staff (including

Environmental Protection Officers and Environmental Protection Inspectors) dedicated to implementing source separation and collection of food waste.

(2) and (3)

We have not conducted any study on the impacts brought about by disposable plastic items on Hong Kong's environment and so on, but are concerned about the problem of disposable plastic items and have been paying close attention to the research and development in other countries or places on the control of disposable plastic items. We are commencing a study on the feasibility, scope and mechanism of controlling or banning disposable plastic tableware. The EPD will consider possible control measures for disposable plastic tableware in Hong Kong in the long run, including the scope and means of control or ban, the applicable substitutes and the appropriate regulatory mechanism. The study is scheduled for completion in 2020.

Starting from January 2019, the Government has taken the lead in banning plastic straws and polyfoam food containers in premises and canteens mainly serving government staff. Relevant departments, when inviting tenders for new contracts and renewing existing contracts, will also require restaurant operators in suitable government venues to avoid using disposable plastic tableware.

The Government conducted a feasibility study on the introduction of a producer responsibility scheme (PRS) on plastic product containers, targeting those carrying beverages or personal care products, in October 2017. Taking into account the recommendations of the consultant, the Government decided to accord priority to plastic beverage containers, which account for about 60% of overall waste plastic containers disposed of in Hong Kong, and proceed first with the introduction of a PRS for this type of containers. We plan to consult the public on the proposed way forward in 2019. The consultant will continue to conduct the feasibility study on the PRS on plastic personal care product containers and submit a report to the Government. On the other hand, with the full implementation of the plastic shopping bag charging scheme in April 2015, the total disposal in that year (i.e. 2015) was 3.93 billion, which was a marked reduction of about 25% from 5.24 billion in the previous year (i.e. 2014) before the full implementation of the scheme. The total disposal in 2017 was 4.42 billion, representing a year-on-year increase of 3%, but there was still a 15% reduction as compared to 2014 when the scheme was not yet fully implemented. Given that the disposal of plastic shopping bags has been on the rise for 2 consecutive years and the charging scheme has been in operation for some time, the EPD will review the effectiveness of the scheme in reducing the use and subsequent disposal of plastic shopping bags. We plan to consult the public on the findings of the review and the way forward later this year.

Furthermore, the EPD has been striving to encourage the public and different sectors to reduce the use of disposable plastic tableware through publicity and education, thereby raising public awareness about environmental protection. In the summer of 2018, the "Plastic Free Beach, Tableware First" campaign was launched at public beaches across the territory to promote a plastic-free culture. A total of 51 restaurants and kiosks joined the campaign and used bamboo sticks, paper straws and paper bags to replace disposable plastic tableware, including polyfoam food containers. The Environmental Campaign Committee (ECC) has also launched a programme which involves lending reusable tableware to event organisers for free and providing them with one-stop service for delivery, collection and

cleaning of tableware. Meanwhile, the EPD and the ECC have collaborated with the food and beverage sector to jointly hold the “Plastic-Free Takeaway, Use Reusable Tableware” campaign to encourage members of the public to go plastic-and-disposable-free and reduce the use of disposable plastic tableware when they order takeaways by providing suitable incentives. The first phase of the campaign - a two-month pilot programme at 3 major fast food chains in Hong Kong - concluded successfully on 15 January this year. During the pilot programme, members of the public together reduced waste and saved more than 1.2 million sets of disposable tableware. We are working on the next phase of the publicity and education campaign with a view to further promoting the plastic-and-disposable-free message to members of the public.

We have also provided the restaurant trade with guidelines to encourage restaurants to provide reusable tableware and food containers for dine-in customers, avoid using polyfoam food containers, welcome customers to bring their own food containers for buying take-away food, etc. Under the Sustainable Development Fund, the Government has previously supported the food and beverage sector to formulate guidelines on green procurement for the trade, including encouraging the commercial and industrial sectors to use reusable or plant-fibre tableware instead of disposable plastic ones. Through the annual Hong Kong Awards for Environmental Excellence, the EPD also commends organisations that have excelled in environmental management, including restaurants committed to waste reduction at source (such as taking measures to encourage customers not to ask for disposable tableware and food containers).

- End -

CONTROLLING OFFICER'S REPLY

ENB121

(Question Serial No. 1881)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

According to the Environmental Protection Department's measures to promote the use of electric vehicles (EVs), capital expenditure incurred by businesses in purchasing eligible EVs may be deducted from the profits tax. In this connection, please advise on the following:

- (1) How many cases were there in which enterprises applied for 100% deduction of the relevant capital expenditure from their profits tax in the first year after purchasing brand new electric private cars in each of the past 5 years?
- (2) How many cases were there in which enterprises applied for 100% deduction of the relevant capital expenditure from their profits tax in the first year after purchasing second-hand electric private cars in each of the past 5 years?
- (3) How does the Administration assess the effectiveness of this measure for promoting procurement of EVs in enterprises? Will the Administration enhance publicity among enterprises? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 212)

Reply:

(1) & (2)

According to Section 16I of the Inland Revenue Ordinance, taxpayers who purchase environment-friendly vehicles in a certain year of assessment can enjoy tax deduction in that year of assessment for the capital expenditure incurred. According to Part 3 of Schedule 17 of the Inland Revenue Ordinance, environment-friendly vehicles include electric vehicles (EVs) as well as eligible vehicles (including conventional fuel-driven vehicles and hybrid vehicles that are compliant with the qualifying emission standards under the Schemes) under the Tax Incentives Scheme for Environment-friendly Commercial Vehicles and the Tax Incentives Scheme for Environment-friendly Petrol Private Cars administered by the

Environmental Protection Department (EPD). (Note: The Tax Incentives Scheme for Environment-friendly Petrol Private Cars ended on 1 April 2015.)

The numbers of cases in which corporations applied for and earned full profit tax deduction in the first year of procurement of environment-friendly vehicles in the past 5 financial years are as follows:

Financial year	No. of cases
2014/15	155
2015/16	194
2016/17	125
2017/18	123
2018/19 (as at 28 February 2019)	121

Regarding the cases of tax deduction for environment-friendly vehicles, the Inland Revenue Department (IRD) does not have a statistical breakdown by the vehicle types involved. Therefore, the IRD does not have a breakdown of the numbers of tax deduction cases involving only brand new electric private cars (e-PCs) or second-hand e-PCs.

(3) Financial incentives play an important role in encouraging enterprises to use EVs. Apart from the above tax deduction, the Government also offers first registration tax concessions and lower e-PC annual vehicle licence fees. As regards electric commercial vehicles, the Government encourages the transport sectors to test out green innovative transport technologies through the Pilot Green Transport Fund. As for the e-PC type, the Government promotes the establishment and enhancement of charging network. The sales of EVs can be affected by various factors, such as local conditions, development of EVs and the related technologies, economic situations, EV prices and availability of suitable EV models and their supply, etc. The Government will closely monitor the latest situation and, taking into account the latest development of EV technologies, market situation and other relevant factors, continue to implement suitable measures to encourage the public to use EVs, and publicise the relevant measures in a timely manner.

- End -

CONTROLLING OFFICER'S REPLY**ENB122****(Question Serial No. 1882)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

On extending the charging network for electric vehicles (EVs):

(1) Please set out in the following table the number of chargers at all public charging locations (by charging speed), the share of EV parking spaces in all parking spaces, the utilisation rate of chargers, car park operators, and measures on priority or exclusive use by EVs (if any), with a breakdown by district.

Location (by 18 districts)	Number of chargers			Share of EV parking spaces in all parking spaces	Utilisation rate of chargers	Car park operators
	Standard	Medium	Quick			

(2) It is mentioned in the 2019-20 Budget that the public EV charging networks at government car parks will be extended. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to 1 700. In this connection, please advise on the respective number of additional standard, medium and quick public chargers planned to be provided by the Administration.

(3) What was the Administration's expenditure on enhancing the charging network, covering operation and maintenance costs of chargers in each of the past 5 years? What are the Administration's estimated expenditure on EV charging facilities and its details in 2019-20?

(4) What is the Administration's timetable for installation of charging facilities at on-street metered parking spaces? When is the first batch of meters at on-street parking spaces expected to be available for car owners to charge their vehicles?

(5) How many applications were received for installation of chargers in private residential car parks in each of the past 5 years? Among these applications, how many were approved and rejected? If there were rejected applications, what were the reasons? What was the average time required for completion of the vetting of an application?

(6) What financial incentives and technical support are currently provided by the Administration to encourage private residential car parks to install chargers? Will the Administration plan to impose the requirement of provision of quick chargers as a lease condition when leasing petrol filling stations to suppliers through tendering? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 213)

Reply:

(1) The numbers of public electric vehicle (EV) chargers provided at government and private car parks which are open for public use with a breakdown by the 18 districts of Hong Kong as at the end of 2018 are as follows:

District	No. of chargers			
	Standard	Medium	Quick	Sub-total
Central & Western	62	110	36	208
Eastern	28	63	52	143
Southern	4	11	27	42
Wan Chai	67	117	35	219
Kowloon City	64	1	15	80
Kwun Tong	214	81	42	337
Sham Shui Po	15	42	37	94
Wong Tai Sin	24	46	9	79
Yau Tsim Mong	101	42	50	193
Kwai Tsing	25	9	33	67
Tsuen Wan	17	46	9	72
Sai Kung	24	31	25	80
North	24	25	12	61
Tai Po	28	3	7	38
Sha Tin	77	44	47	168
Yuen Long	46	33	18	97
Tuen Mun	10	10	17	37
Islands	14	110	27	151
Total	844	824	498	2 166
Government car parks*	314	464	4	782
Private car parks	530	360	494	1 384

*Including the Transport Department (TD), the Government Property Agency (GPA), the Leisure and Cultural Services Department (LCSD), the Electrical and Mechanical Services Department, the Housing Department, the Tourism Commission and the Highways Department

The average utilisation rate of the chargers at the government car parks managed by the TD and the GPA which are open for public use was about 12 times per month per charger. The Environmental Protection Department (EPD) does not have the utilisation figures for the chargers in other government car parks.

At present, electric private cars only account for about 2% of the total number of registered private cars. Given the supplementary nature of charging facilities provided in the government car parks and the principle that users of EVs and all other vehicles should be treated alike for full utilisation of parking space resources, public parking spaces installed with charging facilities are not designated for exclusive use by EVs. That said, contractors of the government car parks managed by the TD and the GPA which are open for public use will, depending on the utilisation situation of the car parks, arrange for traffic cones to be placed and notices to be displayed at parking spaces installed with charging facilities to reserve such spaces for priority use by EVs during non-peak hours whenever practicable.

The EPD does not have the relevant statistics on the provision of public chargers at non-government car parks.

(2) The Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the TD, the GPA and the LCSD which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700.

(3) On the development of public charging networks as supplementary facilities, the Government not only takes the lead in providing and enhancing its public charging facilities at government car parks, but also supports private establishments to set up and enhance non-governmental public charging networks. Regarding the government public charging networks, the Government took the lead in 2012 to install 500 public chargers at government public car parks managed by the TD and government car parks managed by the GPA which are open for public use. To improve the charging efficiency, the EPD has progressively upgraded standard chargers to medium chargers in the past few years (as compared with standard chargers, medium chargers can reduce the charging time by up to 60%).

As at the end of 2018, the EPD has installed 519 chargers, among which 364 are medium chargers, at 425 parking spaces (representing 7% of the relevant parking spaces) at those government car parks managed by the TD and the GPA which are open for public use. The details of and expenditure on enhancing public charging facilities at the above car parks in the past 5 years are as follows:

Year	No. of public EV charging facilities enhanced	Expenditure (\$m)
2014-15	100 medium chargers	1.28
	Installation of electrical installations of quick chargers for taxis at 6 car parks	1.49
	6 medium charging posts at outdoor car parks *	0.55
2015-16	6 medium charging posts at outdoor car parks *	0.23
2016-17	174 standard chargers upgraded to medium chargers and installation of 5 medium charging posts at outdoor car parks	2.94
2017-18	96 standard chargers upgraded to medium chargers	1.32
2018-19	**	**
Total		7.81

* The expenditure on 6 medium charging posts at outdoor car parks spanned over two financial years

** The EPD completed the work for upgrading the standard chargers provided at the car parks of the TD and the GPA which are open for public use to medium chargers in February 2018. Apart from 61 standard chargers located at the TD car parks which will be demolished and 94 chargers which have both standard and medium charging functions, standard chargers at the car parks of the TD and the GPA that are open for public use have all been upgraded to medium chargers.

The electricity costs and maintenance costs of chargers at government car parks borne by the Government in the past 5 years are as follows:

Year	Electricity costs of chargers (\$)	Maintenance costs of chargers (\$)
2014-15	129,532	--
2015-16	429,241	--
2016-17	885,189	53,834
2017-18	1,034,830	60,662
2018-19 (as of February 2019)	926,234	70,792

In 2019-20, it is expected that about 170 medium chargers will be installed at the car parks managed by the TD and the GPA with an estimated expenditure of \$17 million. Moreover, an estimated expenditure of about \$1.2 million will be spent on the operational and maintenance costs of EV charging facilities. In regard of manpower, the above relevant work is mainly absorbed by the EPD with existing resources, and a three-year (up to the end of March 2022) time-limited post of Electrical and Mechanical Engineer/Assistant Electrical and Mechanical Engineer will be created to take up the relevant work.

(4) Regarding the installation of EV chargers at on-street parking spaces, the parking spaces set up at roadside serve mainly short-term parking needs, and parking meters are generally erected at these parking spaces to increase the circulation of the parking spaces for

use by more drivers. Taking into account the potential impact on nearby traffic and the parking needs of other drivers, as well as related technical considerations (such as power supply and space constraints), relevant Government departments are actively looking for suitable on-street parking spaces to install charging facilities on a trial basis. The work on identifying suitable locations is in progress and there is no timetable for the time being.

(5) Since it is not necessary to submit application to the Government for installation of EV chargers in private residential car parks, the Government does not have any information on the number of applications for installation of chargers in private residential car parks.

(6) On promoting the installation of charging facilities in private premises, granting of concession on gross floor area (GFA) for new private buildings have been tightened since April 2011 to encourage developers to provide EV charging-enabling infrastructure, including provision of sufficient power supply, cabling and conduits for all parking spaces at the private car parks of the new buildings concerned. The policy helps to avoid owners of parking spaces being unable to install the required EV chargers owing to constraints in power supply capacity, cabling and conduits, etc. when EVs are widely used in future. According to the information of the Buildings Department, from April 2011 to September 2018, over 80% of parking spaces in the newly approved developments, involving about 440 car parks and around 48 000 parking spaces, will be provided with EV charging-enabling infrastructure.

For existing private premises, as there are constraints in installing charging facilities at their car parks, the EPD established in 2011 a dedicated team and a hotline to provide information and technical support. The two power companies have also been providing technical advice to EV owners and rendering service to connect power supply for car parking spaces at their homes. In recent years, several private companies have been providing EV owners, housing estates or business establishments with one-stop EV charging services, including installation of charging facilities at EV owners' parking spaces and provision of charging services at other specified locations. As far as we know, these companies have so far installed charging facilities for more than 34 housing estates.

Besides, the EPD has appealed to owners' corporations and property managers for their support in installing EV chargers at their premises through seminars and workshops. The Government will continue to strengthen its communication, publicity and education, and provide technical assistance for building owners, property management companies and owners' corporations to facilitate their installation of EV charging facilities. The Government will also continue to explore feasible measures to promote the provision of EV charging-enabling infrastructure or chargers in existing private buildings.

Fire and gas safety problems, space constraint and the potential impacts on the nearby traffic, etc. have to be taken into account in the provision of quick chargers at petrol filling stations. Currently, the Government does not have any plan to impose the requirement of provision of quick chargers as a lease condition when leasing petrol filling stations to suppliers through tendering.

- End -

CONTROLLING OFFICER'S REPLY**ENB123****(Question Serial No. 1883)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the monitoring of illegal disposal of construction waste:

(1) What were the numbers of cases received or identified and follow-up cases of illegal disposal of construction waste, and the numbers of warnings issued and prosecutions by the Administration as well as the numbers of convictions in each of the past 5 years?

(2) How many public works contracts required the adoption of Global Positioning System on construction waste collection vehicles and what was their percentage in the total number of public works contracts in each of the past 5 years?

(3) How many illegal construction waste disposal black spots have been installed with surveillance camera systems as at February 2019? What were the expenditure involved and the effectiveness?

(4) What are the details, estimated expenditure and manpower arrangement for the work of combating illegal disposal of construction waste in 2019-20?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 214)Reply:

(1) The numbers of complaints about illegal disposal of construction waste and the follow-up cases handled by the Environmental Protection Department (EPD), as well as the numbers of warning letters issued, numbers of prosecutions and numbers of convictions in the past 5 years are as follows:

	Year				
	2014	2015	2016	2017	2018
Number of complaints received *	1 695	1 841	1 962	2 003	1 914
Number of prosecutions					
(1) Number of summonses issued	44	60	110	85	87
(2) Number of convictions by summonses	44	58	107	83	84
(3) Number of Fixed Penalty Notices issued	18	18	29	23	52

	Year				
	2014	2015	2016	2017	2018
Number of warning letters issued	32	19	13	3	3

Note: * Including multiple complaints which may arise from a single case.

(2) It is not an established practice to stipulate in public works contracts that construction waste collection vehicles are required to be installed with Global Positioning System (GPS) tracking devices. To enhance construction waste management, the Government took the lead and for the first time specified the requirement of installation of GPS tracking devices in all dump trucks engaged on site in the public works contract “Tung Chung New Town Extension – Reclamation and Advance Works” last year. The contractor then completed the installation of GPS tracking devices in all its dump trucks in the third quarter of last year, and has put in place the measure. The Government also implemented such measure in another public works contract in the first quarter of this year to further test the tracking device. Meanwhile, the EPD is working with other relevant bureaux/departments to identify more suitable government works contracts for testing, so as to accumulate more relevant experience in actual site environment and gauge the views of the trade. Taking into account the experience gained including issues of concerns to the trade, such as compliance cost, data collection, confidentiality and the use of personal data, we will review the overall effectiveness of this initiative in facilitating monitoring and enforcement actions and consider how to implement the initiative in other public works contracts.

(3) As at February 2019, the EPD has installed surveillance camera systems at 80 illegal waste disposal black spots (including 60 illegal construction waste disposal black spots), involving the total cost of about \$6 million. The amount of construction waste illegally disposed of in public places and on Government lands cleared by the Government in 2018 has been significantly reduced by 45% as compared with 2017. This shows signs of improvement by installing the surveillance camera systems and stepping up enforcement efforts, which have helped reduce the illegal disposal of construction waste.

(4) The EPD will review its enforcement strategies from time to time, and will gradually increase the number of surveillance camera systems and flexibly deploy installation of such systems at black spot locations. In 2019-20, we have earmarked about \$5 million to expand the coverage of the surveillance camera systems to increase the coverage to 115 black spots. Moreover, we will deploy manpower resources flexibly having regard to risk assessments, work priorities and actual conditions of the districts to facilitate planning of inspections and pooling of efforts in enforcement in a more effective manner. We will also increase the number of inspections within and outside office hours as well as on holidays according to the specific needs, and will continue to strengthen collaboration with other relevant departments to jointly carry out close monitoring and enforcement work. As the relevant enforcement work is part of the routine duties of the EPD, we do not have separate figures for the manpower and expenditure involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB124

(Question Serial No. 1887)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Government is progressively developing Community Green Stations (CGSs). Regarding the effectiveness of the Sha Tin CGS, the Eastern CGS, the Kwun Tong CGS, the Yuen Long CGS, the Sham Shui Po CGS, the Tuen Mun CGS and the Kwai Tsing CGS:

(1) Please list by month the numbers of visitors and the quantities of various types of recyclables treated (including electrical appliances, computers, glass beverage bottles, compact fluorescent lamps/fluorescent tubes, rechargeable batteries, used books, clothes, waste paper, waste plastics and waste metals) respectively at the 7 CGSs since they commenced operation;

(2) Please list by month the public education activities (including exhibitions, seminars workshops, etc.) organised by the operators of the 7 CGSs and the number of participants in each of the activities; and

(3) Please list the whereabouts of various types of recyclables collected, including: how many materials (in kilogram) were recycled eventually and once recycled, the quantities for export and local use; how many materials (in kilogram) were disposed of at landfills eventually. Please list the recyclers responsible for the treatment of various types of recyclables collected and the quantities of such recyclables they have treated.

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 218)

Reply:

(1) and (2)

The Environmental Protection Department (EPD) is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. As at the end of 2018, 7 CGSs have been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS

which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. Details of the 2018 quarterly operational statistics of the CGSs are set out below:

	1 st Quarter of 2018					2 nd Quarter of 2018				
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po
Quantity of various types of recyclables handled (kg)										
Electrical appliances and computer products	24 881	21 539	17 433	15 082	6 382	13 169	17 312	7 018	10 521	7 502
Glass bottles	87 401	75 191	64 403	51 008	38 726	88 463	76 959	65 979	55 215	65 586
Compact fluorescent lamps/ fluorescent tubes	1 178	1 413	696	787	115	1 050	1 103	444	722	716
Rechargeable batteries	116	507	104	298	243	155	228	80	200	161
Used books	637	123	11	1 068	516	1 343	631	281	1 441	884
Clothing	481	473	401	1 694	1 022	959	1 215	447	1 820	1 941
Waste paper	509	1 039	5 387	6 640	685	412	1 788	6 497	6 183	5 131
Waste plastics	81	1 485	1 358	1 171	1 447	361	2 432	3 831	1 757	5 799
Waste metals	9	269	306	863	121	93	621	594	547	492
Number of educational activities and visitors										
Number of activities	72	75	53	36	96	66	44	67	57	68
Number of visitors	7 295	40 360	6 618	5 383	7 135	7 383	46 211	6 955	5 835	7 821

Note: As the Tuen Mun CGS and the Kwai Tsing CGS commenced operation in late September and November 2018 respectively, only the operational statistics for the 4th quarter of 2018 are available.

	3 rd Quarter of 2018				
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po
Quantity of various types of recyclables handled (kg)					
Electrical appliances and computer products	19 270	17 866	9 687	11 902	17 436
Glass bottles	107 591	81 973	66 774	58 993	71 929
Compact fluorescent lamps/ fluorescent tubes	1 162	620	643	808	403
Rechargeable batteries	238	625	108	121	56
Used books	393	7 748	262	2 047	320
Clothing	486	1 507	264	634	845
Waste paper	82	2 906	4 301	11 175	7 762
Waste plastics	116	2 982	2 596	2 924	7 903
Waste metals	34	710	348	862	2 136
Number of educational activities and visitors					
Number of activities	31	48	48	52	76
Number of visitors	6 164	52 817	7 936	5 430	7 890

	4 th Quarter of 2018						
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Tuen Mun	Kwai Tsing
Quantity of various types of recyclables handled (kg)							
Electrical appliances and computer products	12 371	19 920	13 062	17 327	15 874	7 264	1 003
Glass bottles	93 387	80 975	65 572	63 632	101 277	61 091	33 539
Compact fluorescent lamps/ fluorescent tubes	804	887	601	749	406	352	550
Rechargeable batteries	409	469	108	475	203	115	17
Used books	650	1 102	856	987	442	0	210
Clothing	580	1 107	485	971	1 257	0	778
Waste paper	297	4 000	3 367	8 693	11 691	431	1 420
Waste plastics	235	3 282	2 970	3 413	10 776	470	1 661
Waste metals	354	633	403	2 321	1 118	46	48
Number of educational activities and visitors							
Number of activities	37	45	45	47	68	41	30
Number of visitors	7 330	50 132	9 047	5 278	8 940	15 924	2 308

(3) The CGSs ensured that all recyclables collected were sent to suitable recyclers for proper handling and recycling instead of being disposed of at landfills. The arrangements for the various types of recyclables in the above table are as follows:

Electrical appliances and computer products	The electrical appliances and computer products were mainly sent to ALBA Integrated Waste Solutions (Hong Kong) Ltd. for refurbishment or dismantling. The company is the operator of the
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	Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE·PARK); some of them were sent to Vannex International Limited, which is the contractor of the Computer and Communication Products Recycling Programme; and some of them were sent to Li Tong (H.K.) Telecom Company Limited, which is a contractor of the EPD, for dismantling and recycling.
Glass bottles	All glass bottles were sent to glass management contractors engaged by the EPD for processing. The glass recyclables after processing were used for production of cement and eco-pavers, or used as fill materials in various public works projects.
Compact fluorescent lamps/ fluorescent tubes	All compact fluorescent lamps/ fluorescent tubes were sent to the Ecospace Limited for proper handling. The company is the contractor of the Chemical Waste Treatment Centre.
Rechargeable batteries	All rechargeable batteries were sent to the Vannex International Limited for export for further processing. The company is the contractor of the Rechargeable Battery Recycling Programme.
Used books and clothing	Reuse of used books and clothing was mainly arranged through donation, exchange programmes and second-hand shops. Some of them would be kept in stock for use in future functions.
Waste paper, waste plastics and waste metals	All waste paper, plastics and metals were handled by private recyclers through tendering.

- End -

CONTROLLING OFFICER'S REPLY

ENB125

(Question Serial No. 1577)

Head: (44) Environmental Protection Department

Subhead (No. & title): (000) Operational Expenses

Programme: (4) Water

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is announced in the Budget that \$6 billion will be earmarked for developing new harbourfront promenades and open space as well as improving harbourfront facilities. However, nothing has been mentioned regarding improvement to the marine water quality of the harbourfront areas on both sides of Victoria Harbour. Regarding testing and improvement to the water quality of Victoria Harbour, would the Government advise on the following:

1. What were the monthly marine water quality gradings recorded in the past 3 years?
2. What were the manpower and expenditure involved in testing and improving the water quality of the Victoria Harbour in the past 3 years?
3. What is the Government's expenditure for enhancing the water quality on both sides of Victoria Harbour and promoting a water-friendly culture in 2019-20? What are the specific measures?

Asked by: Hon LEUNG Mei-fun, Priscilla (LegCo internal reference no.: 25)

Reply:

1. The Environmental Protection Department (EPD) conducts routine water quality monitoring within the Victoria Harbour Water Control Zone with the aim of evaluating the state of water quality in Victoria Harbour; monitoring the long-term trend in water quality; assessing the overall compliance with the Water Quality Objectives (WQO); and providing a scientific basis for planning water pollution control strategies. We do not assess water quality grading on a monthly basis. In 2016, 2017 and 2018, the overall WQO compliance rates of Victoria Harbour were 93%, 83% and 97% respectively.

2. In the past 3 years (i.e. 2016, 2017 and 2018), the total expenditure on the territory-wide routine water monitoring programme was about \$21 million. In the same period, the total expenditure for conducting the consultancy study and various surveys to further improve and enhance the near shore water quality and the general environment of Victoria Harbour was about \$46 million. The total expenditure of the various works which helped improve the water quality of Victoria Harbour was about \$180 million. As the monitoring of the

water quality of Victoria Harbour and the implementation of water quality improvement measures are part of the routine duties of the EPD and the Drainage Services Department (DSD), there is no breakdown on the expenditure and manpower involved in this regard.

3. At the same time, the Government is progressively implementing targeted pollution control measures and works, including following up and rectifying misconnections of sewers, constructing and modifying dry weather flow interceptors, improving sewage treatment works, providing public sewers and rehabilitating ageing sewers, etc., to further enhance the quality of coastal waters of Victoria Harbour. The estimated expenditure of the relevant works in 2019-20 is about \$260 million.

When the DSD plans for revitalisation of rivers and nullahs, it will also study the feasibility of providing water-friendly facilities (such as constructing riverside/cross-river walkways, landscaped decks and floating pontoons), so that the public can have closer access to those water bodies, have a better understanding of their benefits and cherish them. In 2019-20, the total design expenses for works that mainly involve these facilities are about \$900,000.

- End -

CONTROLLING OFFICER'S REPLY

ENB126

(Question Serial No. 2000)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Provision for 2019-20 is \$626.1 million (41.3%) higher than the revised estimate for 2018-19. This is mainly due to increased cash flow requirement for non-recurrent projects and a net increase of 21 posts. Please explain the specific allocation of the above expenditure, staff establishment and posts, salaries and operational expenses as well as the details of work.

Asked by: Hon LIAO Cheung-kong, Martin (LegCo internal reference no.: 33)

Reply:

Under the Air Programme, the provision for 2019-20 is \$626.1 million (41.3%) higher than the revised estimate for 2018-19. This is mainly due to increased cash flow requirement for non-recurrent projects for implementing air quality improvement measures, which covers the following:

- (1) According to the scheme for progressively phasing out pre-Euro IV diesel commercial vehicles, the application period for ex-gratia payment for Euro III vehicles will end on 31 December 2019. It is expected that the number of applications for ex-gratia payment will increase in 2019-20;
- (2) Under the Green Transport Pilot Fund that supports the testing of green transport technologies by the transport sectors, both the number of approved trials and the subsidy amount increased in 2018-19 and it is expected that the subsidy will be granted in 2019-20; and
- (3) Payment of the expenses for the trial of retrofitting Euro IV and Euro V double-deck franchised buses with enhanced selective catalytic reduction systems.

Moreover, additional expenditures are required to promote electric vehicles (EVs), including installation of additional chargers for electric private cars at the government car parks that are open to the public, and to enhance the air quality monitoring network, etc.

In addition, the estimated notional annual salary cost at mid-point incurred by the 21 new posts to be created in the Environmental Protection Department under the Air Programme in 2019-20 is about \$14 million. They are mainly for implementing various air quality improvement measures, including control of vehicular emissions, promotion of EVs, enhancement of the air quality monitoring network, etc. Details of the post titles and pay scales are as follows:

Post	Pay Scale	Net Increase
Environmental Protection Officer/ Assistant Environmental Protection Officer	Master Pay Scale Point 27 - 44 (Environmental Protection Officer) Master Pay Scale Point 16 - 21 (Assistant Environmental Protection Officer)	+8
Senior Environmental Protection Inspector	Master Pay Scale Point 22 - 28	+1
Environmental Protection Inspector	Master Pay Scale Point 8 - 21	+4
Senior Executive Officer	Master Pay Scale Point 34 - 44	+1
Executive Officer I	Master Pay Scale Point 28 - 33	+1
Electrical and Mechanical Engineer/ Assistant Electrical and Mechanical Engineer	Master Pay Scale Point 32 - 44 (Electrical and Mechanical Engineer) Master Pay Scale Point 18 - 27 (Assistant Electrical and Mechanical Engineer)	+4
Electrical Inspector	Master Pay Scale Point 24 - 33	+1
Motor Vehicle Examiner II	Master Pay Scale Point 24 - 33	+1
Total		+21

- End -

CONTROLLING OFFICER'S REPLY

ENB127

(Question Serial No. 2001)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (5) Environmental Assessment and Planning

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Matters Requiring Special Attention in 2019-20 of the Environmental Protection Department include continuing to oversee the operation and management of marine parks, and the work on designating new marine parks. Regarding the earmarking of another \$6 billion for developing 9 new harbourfront promenades in Wan Chai, Eastern District, Kai Tak and Tsuen Wan as mentioned in the Budget, since the official members of the Harbourfront Commission do not include the Environment Bureau or the Director of Environmental Protection or their representatives, will the Environmental Protection Department participate in the harbourfront promenade projects in the aspects of nature conservation and environmental assessment? If yes, what are the details and staffing arrangement? If not, what are the reasons?

Asked by: Hon LIAO Cheung-kong, Martin (LegCo internal reference no.: 34)

Reply:

For the harbourfront promenade projects, the departments concerned will prepare preliminary environmental review reports when they carry out detailed planning and design for individual public works projects in accordance with the existing guidelines and procedures promulgated in the related Technical Circular (Works). The Environmental Protection Department (EPD) and relevant departments will review the reports and provide professional advice to the departments concerned on matters including environmental protection and conservation. If a project constitutes a "designated project" as specified under the Environmental Impact Assessment Ordinance, the statutory environmental impact assessment process must be carried out and the application for an environmental permit is required.

As the above work is part of the routine work of the EPD, there is no breakdown on the expenditure.

- End -

CONTROLLING OFFICER'S REPLY

ENB128

(Question Serial No. 0681)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is stated in the Matters Requiring Special Attention in 2019-20 that the Administration will continue to implement various landfill extension schemes. In this connection, please advise on the work progress of the South East New Territories Landfill Extension Scheme, the North East New Territories Landfill Extension Scheme and the West New Territories Landfill Extension Scheme, as well as the estimated expenditure and the staff establishment to be involved in 2019-20.

Asked by: Hon LO Wai-kwok (LegCo internal reference no.: 25)

Reply:

We are implementing the extension schemes of the 3 strategic landfills (i.e. the South East New Territories Landfill, the North East New Territories Landfill and the West New Territories Landfill). The work progress is as follows:

The South East New Territories Landfill Extension Scheme

- (i) We have signed the contract of the project with the landfill contractor and commenced the preparatory works;
- (ii) The site involved was handed over to the contractor on 31 December 2018; and
- (iii) The basic extension works is expected to be completed in mid-2021 and the landfill will then start receiving construction waste.

The North East New Territories Landfill Extension Scheme

- (i) The associated site investigation works have been completed;
- (ii) The review on the interfacing issues between the extended works and the existing landfill is ongoing; and
- (iii) The tendering exercise is expected to be conducted within this year.

The design and site investigation consultancy study of the West New Territories (WENT)

Landfill Extension Scheme

- (i) The review of the outline design of the scheme has been substantially completed;
- (ii) Discussions with relevant government departments are ongoing to study the interfacing issues of the extension scheme with the neighbouring projects and facilities (such as the existing power plant, the WENT Landfill, the T • PARK and other government facilities under planning); and
- (iii) The preparatory work for the planning of the associated works is in progress.

The estimated total expenditure on the design, studies and works of all the above extension schemes in 2019-20 is \$575 million. As the above work is mainly undertaken by the relevant staff of the Environmental Infrastructure Division under the Environmental Protection Department, there is no separate breakdown on the manpower resources required for individual projects.

- End -

CONTROLLING OFFICER'S REPLY

ENB129

(Question Serial No. 0682)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the projects to revitalise the Ma Yau Tong Central Landfill and the Tseung Kwan O Stage I Landfill, would the Administration advise on the following:

1. What is the current progress of the two projects? What are the respective expenditures involved in 2018-19 and 2019-20?
2. It is reported that the project to revitalise the Ma Yau Tong Central Landfill has been terminated. Has the Administration reviewed its operation, including the roles of the Government and the non-profit-making organisation in constructing and managing the facility, the application and assessment procedures, etc.? If yes, what are the details?

Asked by: Hon LO Wai-kwok (LegCo internal reference no.: 26)

Reply:

1. In accordance with the established assessment procedures and criteria, the Steering Committee (SC) on the "Restored Landfill Revitalisation Funding Scheme" (RLRFS) selected 2 non-profit-making organisations (NPOs) to develop detailed proposals to revitalise the Tseung Kwan O Stage I Landfill in Sai Kung and the Ma Yau Tong Central Landfill in Kwun Tong respectively in 2017. For the project proposal of revitalising approximately 2 hectares of flat area in the Tseung Kwan O Stage I Landfill (involving revitalising the landfill site into a camp site-cum-green education ground for providing camping grounds and garden plots for rental, and organising green education, outdoor recreational and adventure training activities etc.), a technical feasibility study was completed in 2018. The Environmental Protection Department (EPD) signed a funding agreement with the NPO concerned in February 2019 to provide funding for the pre-construction activities for the project, including site investigation, detailed design and tender documentation. On completion of the pre-construction activities, the EPD will follow the established procedures to seek funding approval for the capital works of the project from the Legislative Council. The capital expenditures of the project in 2018-19 and 2019-20 are tabulated below:

Revitalisation project	Expenditure	
	2018-19	2019-20
Revitalisation Project at Tseung Kwan O Stage I Landfill	0	\$4.9 million

Regarding the revitalisation project at the Ma Yau Tong Central Landfill, the NPO concerned completed the detailed proposal and found that the estimated capital costs of the project had exceeded the costs estimated during the application stage as well as the capital grant ceiling of \$100 million under the RLRFS. The NPO has decided not to pursue the project further and has formally informed the SC on the RLRFS of its decision. No capital expenditure is incurred for this project in 2018-19 and 2019-20.

In addition, the EPD has set up a Restored Landfill Revitalisation Group under the Environmental Infrastructure Division, which is tasked to take forward the RLRFS, including providing secretariat support for the SC on the RLRFS, inviting and processing funding applications, assisting the selected organisations to formulate detailed development and operational plans, to make application for capital grants and take forward the revitalisation projects, as well as monitoring the implementation and operation of the revitalisation projects, etc. The estimated operating expenditure (including salaries and other recurrent expenditure) of the Group in 2019-20 is about \$9.2 million.

2. The EPD is reviewing the operational and implementation experience of Batch 1 of the RLRFS, which covers the requirements of basic infrastructure/public utilities at individual restored landfills for possible beneficial uses, the roles of the Government and NPOs/National Sports Associations in constructing and managing the facilities, and the application and assessment procedures, with a view to introducing enhanced measures for Batch 2 of the RLRFS and assisting future applicants in proposing diverse modes of collaboration or operation. The review is expected to be completed within 2019 and Batch 2 of the RLRFS will be launched as soon as possible.

- End -

CONTROLLING OFFICER'S REPLY**ENB130****(Question Serial No. 0683)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (4) WaterControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

In 2018, 6% and 2% of the sampling points were classified as bad and very bad respectively. Please advise on the locations of these sampling points; the measures to be taken by the Administration to improve the water quality of these sampling points in 2019-20; and the estimated expenditure and manpower arrangements.

Asked by: Hon LO Wai-kwok (LegCo internal reference no.: 28)Reply:

The sampling points where river water quality was classified as “Bad” or “Very Bad” in 2018 were mainly situated in the northwestern part of the New Territories affected by illegal discharge from livestock farms, expedient connections and villages where public sewerage is not yet available for connection (see Table 1).

Table 1 Sampling points with river water quality classified as “Bad” or “Very Bad” in 2018

Area	River Water Quality Index Grading	
	Bad	Very Bad
Western and Northern New Territories	Upstream of Yuen Long Creek Downstream Kam Tin River Upstream of Tuen Mun River	Downstream of Yuen Long Creek
Sai Kung District	Upstream of Tseng Lan Shue Stream	---

The Environmental Protection Department (EPD)'s main strategies for improving the river water quality in Hong Kong are to enforce the Water Pollution Control Ordinance, implement the Livestock Waste Control Scheme and extend the sewerage network to various villages according to the Sewerage Master Plans so that village houses can be gradually connected to the public sewerage. In the coming year, the EPD will continue to take enforcement actions in accordance with the Water Pollution Control Ordinance and Waste Disposal Ordinance to combat illegal discharge of wastewater and livestock waste as well as expedient connections. The Government will also continue to implement the Sewerage Master Plans progressively to cover most villages that are not yet connected to the sewerage system. With the provision of public sewers, the water quality of these rivers will gradually improve. In addition, the EPD, in collaboration with other relevant departments, will continue to promote the avoidance of pollution in storm drains or rivers through publicity and education, so as to improve river water quality.

Regarding the water quality problem of the Yuen Long Creek, the EPD is collaborating with the Drainage Services Department to step up efforts in tracking down the sources of wastewater in the district and rectifying the misconnections of foul sewers to storm water drains progressively, and will upgrade the treatment capacity and level of the San Wai Sewage Treatment Works and the Yuen Long Sewage Treatment Works, and build a public sewerage system for villages in the northwestern part of the New Territories proactively in order to reduce the pollution load discharging into the Yuen Long Creek, with a view to improving the river water quality.

As taking enforcement actions, implementing the sewerage schemes, and conducting publicity and education programmes are part of the routine duties of the EPD, there is no separate breakdown on the expenditure and manpower involved. In recent years, the Government has implemented a series of sewerage projects in the northwestern part of the New Territories and Sai Kung district, including upgrading of the sewage treatment works, provision of public sewers, rehabilitation of ageing sewers and addition of dry weather flow interception facilities to improve river water quality. The estimated expenditure involved in these projects in 2019-20 is about \$780 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB131

(Question Serial No. 0684)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (6) Nature Conservation

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the improvement works in Lai Chi Wo and Sha Lo Tung, please provide the current progress of the works. What is the estimated provision for 2019-20? Has the Administration explored other countryside areas for conducting improvement works? If yes, please provide the details. In addition, will the Administration consider establishing a fund to provide funding for long-term nature conservation plans, and safeguarding the rights of landowners by making reference to international practices?

Asked by: Hon LO Wai-ki (LegCo internal reference no.: 29)

Reply:

The Countryside Conservation Office (CCO) was established in late July 2018. Since the establishment of the CCO, its staff have carried out a number of site inspections to Lai Chi Wo and Sha Lo Tung, and have been liaising and co-ordinating with relevant government departments, non-governmental organisations (NGOs) and stakeholders (including village representatives, the Rural Committees concerned and green groups, etc.) to discuss and examine suitable minor improvement works. Its preliminary proposals include exploring the feasibility of installing a broadband network and improving public toilet facilities, details of which are still under formulation at the present stage. The CCO will consult the Advisory Committee on Countryside Conservation, which will soon be established, about the suitable improvement works proposals, with a view to taking forward the proposals as soon as possible to improve the local infrastructure.

The CCO will use the funding of \$1 billion earmarked by the Government for undertaking relevant conservation and revitalisation efforts, as well as minor improvement works. The CCO plans to launch a Countryside Conservation Funding Scheme (CCFS) with half of the \$1 billion (i.e. \$500 million) under a non-recurrent account to support NGOs to interact and co-operate with villagers. For instance, the long-term conservation and revitalisation of certain areas including private land may be funded by an approach similar to that of the Nature Conservation Management Agreement Scheme under the Environment and Conservation Fund. The CCO also plans to spend the remaining \$500 million on suitable

minor improvement works and rehabilitation of the existing architectural environment in the countryside.

- End -

CONTROLLING OFFICER'S REPLY

ENB132

(Question Serial No. 0685)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Under Programme (2) Air, the estimated expenditure for 2019-20 shows a substantial increase of 41.3% over the revised expenditure for 2018-19. Please provide the reasons for the increase.

Asked by: Hon LO Wai-kwok (LegCo internal reference no.: 30)

Reply:

Under the Air Programme, the provision for 2019-20 is \$626.1 million (41.3%) higher than the revised estimate for 2018-19. This is mainly due to increased cash flow requirement for non-recurrent projects for implementing air quality improvement measures, which covers the following:

- (1) According to the scheme for progressively phasing out pre-Euro IV diesel commercial vehicles, the application period for ex-gratia payment for Euro III vehicles will end on 31 December 2019. It is expected that the number of applications for ex-gratia payment will increase in 2019-20;
- (2) Under the Green Transport Pilot Fund that supports the testing of green transport technologies by the transport sectors, both the number of approved trials and the subsidy amount increased in 2018-19 and it is expected that the subsidy will be granted in 2019-20; and
- (3) Payment of the expenses for the trial of retrofitting Euro IV and Euro V double-deck franchised buses with enhanced selective catalytic reduction systems.

Moreover, additional expenditures are required to promote electric vehicles (EVs), including installation of additional chargers for electric private cars at the government car parks that are open to the public, and to enhance the air quality monitoring network, etc. In addition, the notional annual salary cost at mid-point incurred by the 21 new posts to be created in the Environmental Protection Department under the Air Programme in 2019-20 is about \$14 million. They are mainly for implementing various air quality improvement

measures, including control of vehicular emissions, promotion of EVs, enhancement of the air quality monitoring network, etc.

- End -

CONTROLLING OFFICER'S REPLY**ENB133****(Question Serial No. 1738)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

It is mentioned in the Matters Requiring Special Attention in 2019-20 that the Environmental Protection Department will continue to implement the Restored Landfill Revitalisation Funding Scheme (RLRFS) to expedite the development of gainful facilities at restored landfills. In this connection, please advise this Committee on the following:

(a) Please use the table below to provide information on the approved applications under Batch 1 of the RLRFS.

Restored landfill	Approved applicant	Approved usage	Expected date for public use	Approved funding

(b) Has the Administration reviewed the arrangements of Batch 1 of the RLRFS? If yes, what are the details? If not, what are the reasons?

(c) When is Batch 2 of the RLRFS expected to be launched?

Asked by: Hon MA Fung-kwok (LegCo internal reference no.: 95)

Reply:

To expedite the development of suitable facilities at restored landfills, \$1 billion has been earmarked under the Capital Works Reserve Fund to set up a "Restored Landfill Revitalisation Funding Scheme" (RLRFS) for application by non-profit-making organisations (NPOs) or National Sports Associations (NSAs) to fund their development of recreational facilities or other innovative proposals at 7 restored landfills. (Note: There are currently 13 restored landfills in Hong Kong, 6 of which have been developed and opened for public use, such as Jordan Valley Park, Ngau Chi Wan Park and Sai Tso Wan Recreation Ground.) To take the RLRFS forward, the Environmental Protection Department (EPD) has established a Steering Committee (SC) to advise on the operational

arrangement of the RLRFS, the assessment of the merits of the applications received and the amount of funding to be granted for the applications.

(a) Information on the approved applications under Batch 1 of the RLRFS is tabulated below:

Restored landfill	Approved applicant	Approved usage	Expected date for public use	Approved funding
Lot B of Tseung Kwan O Stage I Landfill	Tung Wah Group of Hospitals	Camp site-cum-green education ground	Year 2021	<u>One-off capital grant:</u> Up to \$100 million (in money-of-the-day (MOD) prices) [#] <u>Grant to meet the starting costs and operating deficits for the first two years of operation:</u> Up to \$5 million (in MOD prices)

Including \$7.4 million (in MOD prices) for pre-construction activities. On completion of the pre-construction activities, the EPD will follow the established procedures to seek funding approval for the capital works of the project from the Legislative Council.

Under Batch 1 of the RLRFS, the SC also selected another NPO to develop a detailed proposal for revitalising the Ma Yau Tong Central Landfill. Upon completion of the detailed proposal, the NPO found that the estimated capital costs of the project had exceeded the costs estimated during the application stage as well as the capital grant ceiling of \$100 million under the RLRFS. The NPO has decided not to pursue the project further and has formally informed the SC of its decision.

(b) & (c)

The EPD is reviewing the operational and implementation experience of Batch 1 of the RLRFS, which covers the requirements of basic infrastructure/public utilities at individual restored landfills for possible beneficial uses, the roles of the Government and NPOs/NSAs in constructing and managing the facilities, and the application and assessment procedures, with a view to introducing enhanced measures for Batch 2 of the RLRFS and assisting future applicants in proposing diverse modes of collaboration or operation. The review is expected to be completed within 2019 and Batch 2 of the RLRFS will be launched as soon as possible.

- End -

CONTROLLING OFFICER'S REPLY

ENB134

(Question Serial No. 1787)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in the Budget that \$120 million will be allocated to extend the public electric vehicle (EV) charging networks at government car parks. Please advise this Committee on the following:

- (1) The number of EV chargers currently provided in public places and the numbers of additional chargers planned to be provided in the coming 3 years (please list by year).
- (2) It is stated in the Budget that the Government will identify suitable on-street parking spaces to install EV chargers on a trial basis. What are the details of the plan, expenditure involved and the timetable? Will installation of chargers in countryside areas be considered? If no, what are the reasons?
- (3) What is the number of EV chargers currently provided at car parks in private buildings? (Please list the information by type of premises)
- (4) It is mentioned in the Budget that the Government will explore ways to encourage the installation of EV charging facilities at car parks in existing buildings. What are the details of the plan, expenditure involved and the timetable?

Asked by: Hon MOK Charles Peter (LegCo internal reference no.: 47)

Reply:

(1) & (3) As at the end of 2018, the number of public chargers provided at government and private car parks open for public use in Hong Kong was 2 166, including 1 384 provided at private car parks, 782 provided at government car parks (including the Transport Department (TD), the Government Property Agency (GPA), the Leisure and Cultural Services Department (LCSD), the Housing Department, the Tourism Commission and the Highways Department). For the above private car parks, there is no breakdown on the current statistics by type of premises. The Government does not have statistics on private chargers provided at private car parks which are not open for public use.

The Government will allocate \$120 million to extend the public electric vehicle (EV) charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the TD, the GPA and the LCSD which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. The anticipated number of facilities and estimated expenditure are as follows:

Year	No. of proposed additional medium public EV charging facilities	Estimated expenditure (\$m)
2019-20	About 170 medium chargers	17
2020-21	About 600 medium chargers	60
2021-22	About 430 medium chargers	43

Remarks:

The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

(2) Regarding the installation of EV chargers at on-street parking spaces, the parking spaces set up at roadside serve mainly short-term parking needs, and parking meters are generally erected at these parking spaces to increase the circulation of the parking spaces for use by more drivers. Taking into account the potential impact on nearby traffic and the parking needs of other drivers, as well as related technical considerations (such as power supply and space constraints), relevant government departments are actively looking for suitable on-street parking spaces to install charging facilities on a trial basis. There are no confirmed location, timetable and estimated expenditure for the time being.

(4) Regarding the charging arrangements for electric private cars (e-PCs), it is the Government's policy direction that e-PC owners should perform daily charging of their e-PCs by using charging facilities at their home, workplace or other suitable places. Public charging facilities are mainly supplementary in nature, setting up for EV owners to meet occasional needs to top up their batteries on the way. They do not serve as daily charging facilities or their alternatives.

Given the above policy direction, the Government's priority is to facilitate and encourage the installation of charging facilities in private premises when planning for the development of charging facilities for e-PCs. For private premises, granting of concession on gross floor area for new private buildings have been tightened since April 2011 to encourage developers to provide EV charging-enabling infrastructure, including provision of sufficient power supply, cabling and conduits for all parking spaces at the private car parks of the new buildings concerned. The policy helps to avoid owners of parking spaces being unable to install the required EV chargers owing to constraints in power supply capacity, cabling and conduits, etc. when EVs are widely used in future. According to the information of the Buildings Department, from April 2011 to September 2018, over 80% of parking spaces in the newly approved developments, involving about 440 car parks and around 48 000 parking spaces, will be provided with EV charging-enabling infrastructure.

For existing private premises, as there are constraints in installing charging facilities at their car parks, the Environmental Protection Department (EPD) established in 2011 a dedicated team and a hotline to provide information and technical support. The two power companies have also been providing technical advice to EV owners and rendering service to connect power supply for car parking spaces at their homes. In recent years, several private companies have been providing EV owners, housing estates or business establishments with one-stop EV charging services, including installation of charging facilities at EV owners' parking spaces and provision of charging services at other specified locations. As far as we know, these companies have so far installed charging facilities for more than 34 housing estates.

Besides, the EPD has appealed to owners' corporations and property managers for their support in installing EV chargers at their premises through seminars and workshops. The Government will continue to strengthen its communication, publicity and education and provide technical assistance to building owners, property management companies and owners' corporations to facilitate their installation of EV charging facilities.

The Government will explore feasible measures to promote the provision of EV charging-enabling infrastructure or chargers in existing private buildings. As the relevant study is in progress, details of the plan and the timetable are not available for the time being.

- End -

CONTROLLING OFFICER'S REPLY

ENB135

(Question Serial No. 1788)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the Government's "One-for-One Replacement" Scheme, please advise this Committee on the following:

- (1) What is the current progress of the Scheme, including the number of participating vehicles, manufacturers, models and prices of the electric vehicles (EVs) involved and the anticipated numbers of participating vehicles in the coming 2 years?
- (2) Currently, what are the number of electric private cars and their percentage in the total number of private cars?
- (3) With regard to banning the sale of fuel-driven vehicles, has the Government commenced any studies and drawn up any measures, such as a plan to set a timetable for introducing the relevant ban? If yes, what are the details? If no, what are the reasons?

Asked by: Hon MOK Charles Peter (LegCo internal reference no.: 48)

Reply:

- (1) According to the record of the Transport Department, there were 384 electric private cars (e-PCs) first registered under the "One-for-One Replacement" Scheme (the Scheme) as at the end of February 2019. The number of these e-PCs, their brands, models and prices are as follows:

Brand	Model	Quantity	Price (Published retail price + First Registration Tax (FRT) payable under the Scheme after concessions were granted (\$))
BMW	I3 94AH (I01)	41	359,000 - 483,100
	I3S 94AH (I01)	14	422,500 - 568,500
BYD	E6	3	333,000 - 362,224
HYUNDAI	IONIQ ELECTRIC	98	262,172 - 285,029
	IONIQ ELECTRIC (URBAN)	31	239,314 - 270,006
RENAULT	ZOE ZE40	43	269,800 - 299,800
	ZOE ZE40 (BOSE)	4	302,500 - 314,800
TESLA	MODEL S 75 KWH DUAL MOTOR	6	882,435- 1,070,990
	MODEL S 100 KWH DUAL MOTOR	1	1,368,980
	MODEL X 75 KWH DUAL MOTOR	9	969,080 - 1,224,500
	MODEL X 100 KWH DUAL MOTOR	1	1,448,530
	MODEL X 90 KWH DUAL MOTOR	41	1,250,085 - 1,631,710
VOLKSWAGEN	NEW E-GOLF	36	327,490 - 346,778
	NEW E-GOLF LIFE	1	312,490
NISSAN	E-NV200 EVALIA 5-SEATER	9	348,800 - 359,794
	E-NV200 EVALIA 7-SEATER	46	348,800 - 373,600
Total		384	

Though buyers of e-PCs can enjoy FRT concessions under the Scheme, private car (PC) owners will depend on other factors when replacing their cars, including but not limited to the development of electric vehicles (EVs) and related technologies (e.g. operational performance of e-PCs, cost effectiveness and technologies of charging facilities), economic situations (e.g. vehicle owners' affordability) and market situations (e.g. e-PC prices, vehicle owners' preferences, availability of e-PC models and their supply). Therefore, the Government cannot estimate the number of vehicles participating in the Scheme in the coming 2 years. The Government will closely monitor the overall implementation of the Scheme.

(2) The number of registered e-PCs in Hong Kong as at the end of February 2019 was 11 166 (Government vehicles are not included in this number as they are not required for registration), representing 1.8% of the total number of PCs.

(3) The Government will continue to encourage the public to use new energy vehicles in the hope that all newly registered PCs in Hong Kong will ultimately be new energy vehicles

in the long run. However, as Hong Kong does not have its own automotive industry and all vehicles are imported, the Government must be careful when considering the plan to cease the sale of petrol and diesel vehicles to ensure that there is adequate supply of EVs suitable for use in local environment and situation. As the first step, we may consider ceasing the first registration of diesel PCs subject to consultation with stakeholders. Similarly, the Government will also consider whether the first registration of diesel motor cycles should be ceased.

- End -

CONTROLLING OFFICER'S REPLY**ENB136****(Question Serial No. 1671)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please set out the numbers of first registered private cars in the past 5 years according to the 3 categories of electric vehicles, petrol vehicles and diesel vehicles. Has the Government assessed whether relaxing the eligibility criteria of the "One-for-One Replacement" Scheme can achieve the result of encouraging the growth of environment-friendly vehicles? If yes, what are the results of the assessment? If no, what are the reasons?

Asked by: Hon NG Wing-ka, Jimmy (LegCo internal reference no.: 65)Reply:

According to the record of the Transport Department, the numbers of first registered private cars (PCs) in Hong Kong by fuel type in the past 5 years are as follows:

Year	No. of first registered PCs		
	Petrol	Diesel	Electric
2014	44 245	1 546	845
2015	46 122	1 593	2 607
2016	36 266	1 896	3 020
2017	35 536	4 246	3 860
2018	41 551	265	471

To strike a balance between the objectives of promoting the use of electric private cars (e-PCs) and not increasing the overall number of PCs at the same time, the Government introduced the "One-for-One Replacement" Scheme (the Scheme) on 28 February 2018 to encourage existing PC owners to choose electric vehicles (EVs) when they need to replace their cars. Purchasers of e-PCs who scrap and de-register their eligible old PCs can enjoy a higher first registration tax concession.

Having examined the views from members of the public after the implementation of the Scheme, the Government has decided to relax the eligibility criteria of ownership period and

licensed period of an “old PC” under the Scheme with effect from 28 January 2019 until the end of the Scheme (i.e. 31 March 2021). After relaxing the relevant criteria, the number of eligible vehicles has increased by 30% to more than 250 000.

Despite the fact that the Government has relaxed the above two eligibility criteria, PC owners will consider other factors when replacing their cars, including but not limited to the development of EVs and related technologies (e.g. operational performance of e-PCs, cost effectiveness and technologies of charging facilities), economic situations (e.g. vehicle owners’ affordability) and market situations (e.g. e-PC prices, vehicle owners’ preferences, availability of e-PC models and their supply). The Government will closely monitor the overall implementation of the Scheme.

- End -

CONTROLLING OFFICER'S REPLY**ENB137****(Question Serial No. 0877)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the work to “promote the use of electric vehicles (EVs) in Hong Kong”, please set out the number of cases in which the First Registration Tax was waived for buying EVs in the past 5 years respectively. Please provide the data in the table below.

Vehicle Type	Electric private car		Electric commercial vehicle		Electric motor cycle		Electric motor tricycle	
	Quantity	Total amount of tax waived	Quantity	Total amount of tax waived	Quantity	Total amount of tax waived	Quantity	Total amount of tax waived
2014								
2015								
2016								
2017								
2018								

Asked by: Hon OR Chong-shing, Wilson (LegCo internal reference no.: 16)Reply:

The numbers of first registered electric vehicles by vehicle type and the amounts of first registration tax waived in the past 5 years are as follows:

Year	Vehicle Type							
	Electric private car		Electric commercial vehicle		Electric motorcycle		Electric motor tricycle	
	Quantity	Total amount of tax waived (\$ million)	Quantity	Total amount of tax waived (\$ million)	Quantity	Total amount of tax waived (\$ million)	Quantity	Total amount of tax waived (\$ million)
2014	845	549.12	30	2.98	25	0.38	0	0
2015	2 607	1,743.45	30	1.65	0	0	0	0
2016	3 020	1,975.37	25	1.07	2	0.09	0	0
2017	3 860	3,149.41	42	1.37	2	0.11	0	0
2018	471	79.85	26	1.07	0	0	0	0

Note: Government vehicles are not included as they are not required to pay first registration tax.

- End -

CONTROLLING OFFICER'S REPLY**ENB138****(Question Serial No. 0931)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the “provision of air quality information and Air Quality Health Index (AQHI) to the public” as mentioned in the Estimates, please advise:

What were the numbers of days on which AQHI in Hong Kong was at the “Low (1-3)” health risk category in each of the past 5 years?

What is the expenditure earmarked by the Government this year for the maintenance or improvement of air quality?

Asked by: Hon OR Chong-shing, Wilson (LegCo internal reference no.: 27)Reply:

The numbers of days on which the Air Quality Health Index recorded at the general and roadside air quality monitoring stations (AQMSs) of the Environmental Protection Department fell under the “Low (1-3)” health risk category throughout the day in the past 5 years (2014 to 2018) are set out respectively in the following table:

Year	General AQMSs	Roadside AQMSs
2014	57	1
2015	51	7
2016	70	31
2017	89	23
2018	81	27

In 2019-20, the total estimated expenditure under the Air Programme is \$2.141 billion. Most of the estimated expenditure is for some non-recurrent items for improving the air quality, including the provision of ex-gratia payments to progressively phase out pre-Euro IV diesel commercial vehicles, subsidising franchised bus companies in full to conduct trials of electric buses, supporting testing of green transport technologies by the transport sectors through the Pilot Green Transport Fund, conducting the trial of retrofitting Euro IV

and Euro V double-deck franchised buses with enhanced selective catalytic reduction systems and promoting the Cleaner Production Partnership Programme. The rest of the estimated expenditure is for monitoring the air quality and implementing measures to control emissions from various air pollution sources, so as to improve the air quality. This includes expenditure for the operation and maintenance of AQMSs, deploying roadside remote sensing equipment to detect the emissions of petrol and liquefied petroleum gas vehicles, mandating vessels to use compliant fuel within Hong Kong waters, reviewing the Air Quality Objectives and the continuous collaboration with the Guangdong Provincial Government on the implementation of the Pearl River Delta Regional Air Quality Management Plan.

- End -

CONTROLLING OFFICER'S REPLY

ENB139

(Question Serial No. 0404)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Matters Requiring Special Attention of the Environmental Protection Department (EPD) in the coming year include preparing to launch an incentive-cum-regulatory scheme to progressively phase out Euro IV diesel commercial vehicles by the end of 2023. With regard to this scheme, please advise on the following:

- What is the implementation timetable for the scheme?
- Has the EPD consulted the stakeholders on the proposed scheme? If yes, what is the outcome of the consultation? If no, what are the reasons?
- What are the details of the incentive measures under the scheme?

Asked by: Hon POON Siu-ping (LegCo internal reference no.: 40)

Reply:

To continuously improve roadside air quality, the Environmental Protection Department plans, by making reference to the existing scheme of phasing out pre-Euro IV diesel commercial vehicles (DCVs), to adopt an incentive-cum-regulatory approach to progressively phase out about 40 000 Euro IV DCVs by the end of 2023 on a mandatory basis, and grant an ex-gratia payment to owners who scrap and de-register their Euro IV DCVs by the specified deadlines. After the specified deadlines, the licences of relevant DCVs will not be renewed. We are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course. We are striving to report the detailed arrangements to the Advisory Council on the Environment and the Panel on Environmental Affairs of the Legislative Council in late 2019/early 2020 after working out the implementation details and consulting the trade.

- End -

CONTROLLING OFFICER'S REPLY

ENB140

(Question Serial No. 1660)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the mid-term review of the Recycling Fund being carried out by the Environmental Protection Department (EPD), please advise on the following:

- The progress and direction of the review, and whether a specific timetable has been set in respect of the completion date of the review and the implementation date of the measures identified in the review;
- After the review, how will the Recycling Fund dovetail with the existing measures (e.g. the Community Green Stations) and the proposed measures to be implemented (e.g. municipal solid waste charging) to promote waste reduction?
- The EPD plans to create 148 posts under Programme (1) in 2019-20. Are these posts responsible for the above work? If yes, what are the post titles, pay bands and scope of work of these posts? If no, what are the details of the duties of these posts?

Asked by: Hon POON Siu-ping (LegCo internal reference no.: 39)

Reply:

The Government launched the \$1 billion Recycling Fund in October 2015 for application by the recycling industry to assist in the upgrading of the operational capabilities and efficiencies of the industry, thereby facilitating the sustainable development of the recycling industry, promoting the recovery and recycling of waste, and reducing the disposal of waste at landfills. Without compromising the need in safeguarding the use of the Recycling Fund and maintaining effective control on applicants, various facilitation measures have been progressively introduced since the Fund's early stage of operation. These measures include providing partial reimbursement of expenses to successful applicants before the launch of the projects under the Enterprise Support Programme (ESP) and the Industry Support Programme (ISP) and establishing a category of Standard Projects under the ESP to minimise the administrative workload of small and medium enterprises (SMEs) in making applications. The SMEs undertaking Standard Projects can also submit applications, report achievements and seek reimbursements in accordance with a set of streamlined procedures. Besides, the Advisory Committee on Recycling Fund has approved the

waiving of a condition on opening a designated project bank account for Standard Projects, and can provide reimbursement midway through the project period.

To assist the recycling industry to address the Mainland's progressive tightening requirements on imports of recyclables, the Recycling Fund announced in September 2017 that \$20 million had been earmarked to expand the list of fundable items under Standard Projects to help upgrade the recyclers' ability in processing waste plastics and waste paper. The Recycling Fund also earmarked \$50 million for encouraging recyclers to use compactor trucks for more effective and efficient transportation of waste plastics and waste paper and lower transportation costs. Furthermore, in July 2018, the Recycling Fund increased the amount earmarked for Standard Projects to \$50 million and expanded the funding scope to cover the equipment related to the recycling of waste metals and food waste. In January 2019, the equipment related to the recycling of waste wood was also included in the list of fundable items under Standard Projects. In December 2018, the funding scope of Standard Projects was further expanded to subsidise local school lunch box suppliers to procure equipment so as to implement the adoption of reusable lunch boxes and food waste recycling.

The Environmental Protection Department (EPD) is now conducting a mid-term review of the operation of the Recycling Fund, which covers a comprehensive review of the overall operation of the Fund as well as collection of views from the recycling industry and various stakeholders regarding the existing arrangements of the Fund. The Fund introduced the first stage of enhancement measures in mid-January 2019, which mainly included:

1. To introduce a new rental subsidy scheme to provide a maximum of 50% rental subsidy to encourage recyclers relocating their existing operations to more appropriate venues. For example, they can relocate from street shops at ground level to industrial buildings, or from recycling sites located in inappropriate zones to industrial buildings or lands zoned for industrial purpose;
2. To extend the scope of rental expenses subsidy under the current ESP from rental expenses incurred from newly rented premises to rental expenses incurred from the existing premises, with a funding support cap of \$40,000 per month or 20% of the total funding amount (whichever is lower);
3. To increase the maximum upfront payment for ESP projects from 15% to 30% of the total funding amount to improve grantees' cash flow during the early phase of the projects;
4. To merge the existing Standard Project - \$150,000 and Standard Project - \$1M into one new programme named Standard Project - \$1M, with a funding ceiling of \$1,000,000, and to update the prescribed equipment list timely in response to the needs of the industry so as to simplify the application process for recyclers to make the best use of the Fund;
5. To streamline the workflow to expedite payment of the approved funding amount to grantees of Standard Projects; and
6. To further reduce the grantees' administrative workload, including relaxing the covering period requirements for the baseline quantity survey of the projects and the frequency of submitting progress reports.

We will continue with the mid-term review and plan to introduce the next stage of enhancement measures as soon as possible. This will facilitate the implementation of various existing and proposed waste reduction and recycling measures, including providing more diverse and stable outlets for recyclables collected by the Community Recycling Network such as Community Green Stations. When municipal solid waste charging is implemented in the future, the general public will have more incentive to practise waste separation and recycling so that the local recycling industry will be provided with more recyclables of better quality. The enhancement measures continuously introduced by the Recycling Fund will provide more appropriate support for the industry in a timely manner and promote sustainable use of local resources in Hong Kong.

Conducting a mid-term review of the operation of the Recycling Fund is part of the work of the Waste Reduction and Recycling Division of the EPD, and is absorbed by existing establishment and resources. There will be an increase of 148 posts in the EPD under “Programme (1) Waste” in 2019-20 and the notional annual salary cost at mid-point is about \$94 million. This is mainly for taking forward various producer responsibility schemes, preparing for the Municipal Solid Waste Charging Scheme, setting up new outreach teams, enhancing the food waste treatment capacity with the use of food waste/sewage sludge anaerobic co-digestion technology and implementing other waste reduction and recycling measures. The details of the post titles and pay scales are as follows:

Post	Pay Scale	Net Increase of posts
Assistant Director of Environmental Protection	Directorate Pay Scale Point 2	+1
Principal Environmental Protection Officer	Directorate Pay Scale Point 1	+3
Senior Environmental Protection Officer	Master Pay Scale Point 45 - 49	+12
Environmental Protection Officer/ Assistant Environmental Protection Officer	Master Pay Scale Point 27 - 44 (Environmental Protection Officer) Master Pay Scale Point 16 - 21 (Assistant Environmental Protection Officer)	+29
Chief Environmental Protection Inspector	Master Pay Scale Point 29 - 33	+2
Senior Environmental Protection Inspector	Master Pay Scale Point 22 - 28	+26
Environmental Protection Inspector	Master Pay Scale Point 8 - 21	+34
Senior Architect	Master Pay Scale Point 45 - 49	+1
Architect/ Assistant Architect	Master Pay Scale Point 32 - 44 (Architect) Master Pay Scale Point 19 - 27 (Assistant Architect)	+1
Senior Administrative Officer	Master Pay Scale Point 45 - 49	+1
Chief Executive Officer	Master Pay Scale Point 45 - 49	+2
Executive Officer I	Master Pay Scale Point 28 - 33	+2

Post	Pay Scale	Net Increase of posts
Executive Officer II	Master Pay Scale Point 15 - 27	+1
Chief Supplies Officer	Master Pay Scale Point 40 - 44	+1
Official Languages Officer II	Master Pay Scale Point 14 - 27	+1
Accounting Officer I	Master Pay Scale Point 28 - 33	+2
Accounting Officer II	Master Pay Scale Point 14 - 27	+1
Clerical Officer	Master Pay Scale Point 16 - 21	+1
Assistant Clerical Officer	Master Pay Scale Point 3 - 15	+8
Clerical Assistant	Master Pay Scale Point 1 - 10	+4
Personal Secretary I	Master Pay Scale Point 16 - 21	+1
Personal Secretary II	Master Pay Scale Point 4 - 15	+5
Motor Driver	Master Pay Scale Point 5 - 8	+8
Supplies Supervisor I	Master Pay Scale Point 16 - 21	+1
Total		+148

- End -

CONTROLLING OFFICER'S REPLY

ENB141

(Question Serial No. 2220)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding issues relating to plastics, please advise this Committee of the following:

1. It is stated in the Matters Requiring Special Attention in 2019-20 that the Department will press ahead with the introduction of a producer responsibility scheme on plastic beverage containers. When will the scheme be introduced? What are the staff establishment and the expenditure to be involved?
2. It is stated in the Matters Requiring Special Attention in 2019-20 that the Department will conduct a review of the plastic shopping bag charging scheme. When will the review begin and be completed?
3. It is stated in the Matters Requiring Special Attention in 2019-20 that the Department will introduce a pilot scheme in 3 districts to provide free collection service for all types of waste plastics from non-commercial and non-industrial sources. What are the 3 districts? When will the pilot scheme be launched? What are the staff establishment and expenditure to be involved?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 146)

Reply:

1. The Government commissioned a feasibility study on the introduction of a producer responsibility scheme (PRS) on plastic product containers, targeting those carrying beverages or personal care products, in October 2017. Taking into account the recommendations of the consultant, the Government decided to accord priority to plastic beverage containers, which account for about 60% of overall waste plastic containers disposed of in Hong Kong, and proceed first with the introduction of a PRS for this type of containers. We plan to consult the public on the proposed way forward in 2019. The consultant will continue to conduct the feasibility study on the PRS on plastic personal care product containers and submit a report to the Government.

In parallel, the Environmental Protection Department (EPD) is preparing for the implementation of a pilot scheme on the application of reverse vending machine (RVM), and will assess its performance and effectiveness in collecting waste plastic beverage containers, as well as the operational arrangements for storing and transporting

the plastic bottles collected to local recyclers for further processing. Our initial plan is to place a total of 50 to 60 RVMs at different locations in the second half of 2019, primarily at public places or government facilities with higher pedestrian flow. Through the pilot scheme, the EPD will also assess the appropriate incentive and the level that should be provided having regard to the recommendations put forward by the consultant. The EPD is now undertaking the preparatory work to work out the specific details of the pilot scheme.

The estimated expenditure for the consultancy study in the financial year 2019-20 is about \$2.2 million. The estimated expenditure for the pilot scheme on the application of RVM in the financial year 2019-20 is about \$4 million, which will mainly be used to engage a contractor to carry out the scheme. As these 2 work items are part of the work of the Waste Management Policy Division of the EPD, there is no separate breakdown of the manpower and expenditure involved in such work.

2. As the disposal of plastic shopping bags (PSBs) has been on the rise for 2 consecutive years and the scheme has been in operation for some time, the Government will review the effectiveness of the scheme in reducing the use and disposal of PSBs. We plan to consult the public on the findings of the review and the way forward later this year.
3. The EPD plans to roll out a two-year Pilot Scheme on Collection and Recycling Services of Waste Plastics in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin) to provide free collection service for waste plastics from non-commercial and non-industrial sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts, with a view to gaining practical experience before expanding the service to the whole territory. The EPD will hire contractors through service contracts to collect waste plastics direct from the above-mentioned premises for further treatment in recycling process, then produce recycled raw materials or products to be exported or supplied to the local market, so as to ensure that the waste plastics collected are properly handled. The EPD is tendering the waste plastics collection service contract of the Eastern District, with a view to rolling out the services this year. We will also invite tenders for waste plastics collection service in Kwun Tong and Sha Tin districts one after another later. In 2019-20, the 3 pilot schemes will be undertaken by 18 non-directorate professional staff (including Environmental Protection Officers and Environmental Protection Inspectors), and the estimated total expenditure is about \$72 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB142

(Question Serial No. 2221)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is stated in the Matters Requiring Special Attention in 2019-20 that the Department will introduce a pilot scheme to collect food waste generated from commercial and industrial sources. Please advise this Committee on the following:

1. What are the details of the pilot scheme?
2. What are the staff establishment and expenditure to be involved?
3. When is the pilot scheme expected to be launched?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 147)

Reply:

(1) and (3) To promote proper recycling of food waste and achieve the target of turning waste to energy, the Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. The pilot scheme will mainly involve collection of food waste generated by commercial and industrial (C&I) sectors, including the continued provision of food waste collection service for public markets and cooked food venues under the Food and Environmental Hygiene Department (FEHD), as well as wet markets and shopping centres managed by the Hong Kong Housing Authority (HA). The pilot scheme will also include free food waste collection service for all primary and secondary schools, and tertiary institutions in Hong Kong starting from the second quarter of this year through those school lunch suppliers or canteens of the tertiary institutions which are interested to join the scheme.

Organic Resources Recovery Centre Phase 1 (O • PARK1) has come into operation since 1 July 2018 and can treat 200 tonnes of food waste per day. Since then, 40 public markets and cooked food venues under the FEHD and 9 shopping centres and wet markets under the HA have started source separation and collection of food waste. The food waste collection contractor of the FEHD delivers source-separated food waste from the above 49 premises to

the O • PARK1 for treatment every day. In addition, to further promote recycling of food waste and enhance the quality of food waste collected, the Environmental Protection Department (EPD) has arranged a contractor to provide suitable guidance and training for operators of public market stalls, cooked food venues and shopping centres, including advising them on how to practise source separation, collection and delivery of food waste. We are discussing with the relevant government departments on extending the free food waste collection service to other public markets, cooked food venues and shopping centres under the FEHD and the HA and other facilities, for example, more wholesale markets under the Agriculture, Fisheries and Conservation Department and hospitals under the Hospital Authority, etc. under the above pilot scheme.

Regarding provision of free food waste collection service for school lunch suppliers, in February this year, the EPD invited school lunch suppliers to participate in the above pilot scheme by collecting the food waste generated from their supply of lunch for primary and secondary schools and food left uneaten by students, and delivering such food waste to the O • PARK1. About 10 school lunch suppliers have indicated their interest in participating in the above pilot scheme at present. The contractor of the O • PARK1 engaged by the EPD is getting in contact with the interested school lunch suppliers to discuss the food waste collection arrangements. It is expected that the food waste collection service can be launched in the second quarter of this year.

In addition, the EPD is getting in touch with the canteens of the tertiary institutions to discuss various feasible options to provide free food waste collection service for them under the pilot scheme. Most tertiary institutions have indicated their interest in participating in the above pilot scheme.

We will also explore the provision of free food waste collection service for some of the C&I establishments which has been proactively delivering their food waste from different districts to the O • PARK1 at present. The number of establishments involved and the scale of collection are subject to the treatment capacities of the food waste recycling facilities.

The EPD is working with the Drainage Services Department (DSD) to examine the use of existing and planned sewage treatment works (STW) to take forward “food waste/sewage sludge anaerobic co-digestion” technology. The first “food waste/sewage sludge anaerobic co-digestion” trial scheme (Trial Scheme) will be carried out at the Tai Po STW and can treat 50 tonnes of food waste per day. We are planning to allocate a portion of the treatment capacities of the O • PARK1 and the Trial Scheme at the Tai Po STW to provide free collection and recycling services for a portion of the domestic food waste. Priority will be given to food waste from housing estates with experience in food waste separation and recycling, such as the 35 private housing estates that have participated in the “Food Waste Recycling Projects in Housing Estates” under the Environment and Conservation Fund (ECF). These housing estates have received funding support from the ECF for installing on-site food waste treatment facilities, organising relevant educational and promotional activities, and putting source separation and recycling of food waste into practice. We will take the initiative to invite these housing estates to join the aforesaid pilot scheme on free food waste collection service.

Apart from that, we are planning to extend the “food waste/sewage sludge anaerobic co-digestion” trial scheme to cover the Sha Tin STW for commissioning in 2022. Having regard to the experience gained from the above pilot scheme, we will conduct a trial on collection of domestic food waste in Sha Tin to test the operational and facilitation requirement for carrying out separation at source, collection and recycling of domestic food waste at different types of private and public housing estates, villages and domestic/commercial buildings. We are seeking funding approval from the Legislative Council for construction of the Organic Resources Recovery Centre Phase 2 (ORRC2). Upon commissioning of the ORRC2, we will not only be able to further extend the free food waste collection service to cover more C&I establishments, but will also allocate part of its treatment capacity to recycle the domestic food waste collected for free from the households and villages within the area.

The implementation schedule of the above free food waste collection services will largely depend on the completion dates of the food waste recycling facilities. With the gradual completion of such facilities in future, we plan to extend the food waste collection services to cover all districts and sectors in Hong Kong in a prompt manner.

(2) The estimated expenditure for implementing the pilot scheme to provide free food waste collection service in 2019-20 is about \$55 million.

7 additional non-directorate professional staff of the EPD (including Environmental Protection Officers and Environmental Protection Inspectors) will be dedicated to implementing source separation and collection of food waste.

- End -

CONTROLLING OFFICER'S REPLY

ENB143

(Question Serial No. 2222)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is stated in the Matters Requiring Special Attention in 2019-20 that the Environmental Protection Department will continue to promote the use of new energy vehicles including electric vehicles (EVs), and enhance the charging network for EVs. What are the specific measures for promoting EVs? What are the staffing establishment and expenditure to be involved?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 148)

Reply:

The Government's key measures for promoting the use of electric vehicles (EVs) include the following:

(1) The Government has waived the first registration tax (FRT) for all EVs for the first time in 1994. The current FRT concession arrangements for EVs are as follows:

- a) Electric commercial vehicles (e-CVs) (including goods vehicles, buses, light buses, taxis and special purpose vehicles), electric motor cycles and electric motor tricycles: their FRT continues to be waived in full from 1 April 2018 to 31 March 2021;
- b) Electric private cars (e-PCs): A tiered structure is implemented -
 - i) except for eligible private car (PC) owners (see (b)(ii) below), FRT for e-PCs continues to be waived up to \$97,500 from 1 April 2018 to 31 March 2021, as at present.
 - ii) a "One-for-One Replacement" Scheme is launched from 28 February 2018 to 31 March 2021 (both days inclusive), allowing PC owners who arrange to scrap and de-register their own eligible old PC (PC with an internal combustion engine or e-PC) and then first register a new e-PC to enjoy a higher FRT concession up to \$250,000.

(2) Enterprises which procure EVs are allowed full profit tax deduction for the capital expenditure on the vehicle in the first year of procurement;

(3) A \$300 million Pilot Green Transport Fund has been put in place since March 2011 to subsidise the transport sectors to try out green innovative transport technologies, including e-CVs;

(4) \$180 million was allocated to fully subsidise the franchised bus companies to acquire 28 single-deck battery-electric buses, 8 single-deck supercapacitor buses and related charging facilities for trials on a number of routes to assess their operational efficiency and performance in local conditions;

(5) Since April 2011, the Government has tightened its requirements where, instead of allowing car parks in new private buildings to be fully exempted from gross floor area (GFA) calculations as in the past, only underground car parks provided with EV charging-enabling infrastructure (including the provision of switchboards, distribution boards, cabling, conduits and trunking) at each parking space can be fully exempted from GFA calculations. If owners of such parking spaces purchase EVs in future, they may install the required chargers and apply for electricity meter connection at their parking spaces for daily charging of their EVs, and they will not be hindered from installing the required EV chargers due to constraints in respect of power supply capacity, cabling and conduits, etc.

(6) In June 2011, the Hong Kong Planning Standards and Guidelines were amended to recommend 30% of the parking spaces for PCs to be installed with EV charging facilities;

(7) The Environmental Protection Department (EPD) established a dedicated team and a service hotline (3757 6222) to provide information and technical support to interested parties in setting up EV chargers. Moreover, the Government has also issued guidelines on the arrangements and technical requirements for installing charging facilities; and

(8) Subject to the availability of suitable EV models in the market and them meeting the operational needs of government departments, the Government will continue to procure EVs to replace the vehicles due to retire.

The above work is absorbed by the Government with existing resources.

In addition, the Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the Transport Department, the Government Property Agency and the Leisure and Cultural Services Department which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. The anticipated number of facilities and estimated expenditure are as follows:

Year	No. of proposed additional medium public EV charging facilities	Estimated expenditure (\$m)
2019-20	About 170 medium chargers	17
2020-21	About 600 medium chargers	60
2021-22	About 430 medium chargers	43

Remarks: The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

We will also explore suitable locations to set up pilot quick charging stations for EVs. In parallel, the Government will also study the setting up of a smart system for EV charging and explore feasible measures to promote the provision of EV charging-enabling infrastructure or chargers in existing private buildings. The EPD will create the following 7 posts in 2019-20 to take up the relevant work:

Post	Pay Scale	Net Increase of Posts
Environmental Protection Officer/ Assistant Environmental Protection Officer	Master Pay Scale Point 27 - 44 (Environmental Protection Officer) Master Pay Scale Point 16 - 21 (Assistant Environmental Protection Officer)	2 (for 3 years)
Electrical and Mechanical Engineer/ Assistant Electrical and Mechanical Engineer	Master Pay Scale Point 32 - 44 (Electrical and Mechanical Engineer) Master Pay Scale Point 18 - 27 (Assistant Electrical and Mechanical Engineer)	3 (for 3 years) 1 (for 5 years)
Electrical Inspector	Master Pay Scale Point 24 - 33	1 (for 5 years)
Total		7

We will also identify suitable on-street parking spaces to install EV chargers on a trial basis. This initiative will be undertaken by the EPD with existing resources. There is no separate breakdown of expenditure involved in this aspect.

- End -

CONTROLLING OFFICER'S REPLY

ENB144

(Question Serial No. 2262)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is stated under the Matters Requiring Special Attention in 2019-2020 that the Department will introduce new initiatives for further improving air quality. What are the specific initiatives? What are the staff establishment and expenditure to be involved?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 154)

Reply:

Under Programme "Air" in 2019-20, the Environmental Protection Department (EPD) will continue to implement various air quality improvement measures outlined in *A Clean Air Plan for Hong Kong*, and adopt new measures with the aim of further improving the air quality. The details of the new measures are set out in the Annex.

New air quality improvement measures planned for implementation in 2019-20

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
Vehicles			
1. Tightening the emission standards of first registered motorcycles (MCs), light buses (design weight of more than 3.5 tonnes) and buses (design weight of not more than 9 tonnes)	In view of the current adequate supply of Euro IV compliant MC models and the latest projection of supply of Euro VI compliant light bus and bus models, the Government recommends: (i) tightening the emission standards of first registered MCs to Euro IV, in second half of 2020; and (ii) tightening the emission standards of first registered light buses (design weight of more than 3.5 tonnes) and buses (design weight of not more than 9 tonnes) to Euro VI, On-Board Diagnostics (OBD) Phase C, starting from early 2021.	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	The EPD consulted the Advisory Council on the Environment (ACE) and the Panel on Environmental Affairs (EA Panel) of the Legislative Council (LegCo) on 3 December and 19 December 2018 respectively and gained support from the members. We are preparing for the amendment of the Air Pollution Control (Vehicle Design Standards) (Emission) Regulations (Cap. 311J) to implement the above proposals.
2. Trial of retrofitting Euro IV and V double-deck franchised buses with enhanced selective catalytic reduction (SCR) systems	The Government plans to fully subsidise the franchised bus companies to conduct a trial of retrofitting Euro IV and V diesel double-deck buses of the dominant bus models with enhanced SCR systems, so as to establish its technical feasibility and to confirm the emission reduction performance of the enhanced SCR systems from different suppliers under local road conditions and operational conditions. The trial is expected to be completed by 2021.	To retrofit not more than 60 Euro IV and V double-deck franchised buses with enhanced SCR systems, the estimated cost of the trial is about \$38 million. The relevant workload is partly absorbed with the existing resources of the EPD and Transport Department (TD). The EPD will create 2 additional two-year time-limited posts (until end of March 2021; including 1 Environmental Protection Officer	A Task Force comprising the EPD, the TD, franchised bus companies and local experts has been set up to draw up technical specifications and detailed arrangements for the trial, and monitor and evaluate the operational performance and emission reduction performance of the buses retrofitted with the enhanced SCR systems. If the trial is successful, the Government will consider fully

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
		<p>and 1 Environmental Protection Inspector) to undertake and follow up on the relevant trial.</p> <p>The TD will also create 2 two-year time-limited posts (until end of March 2021, including 1 Transport Officer II and 1 Motor Vehicle Examiner I) to undertake the relevant work.</p>	<p>subsidising the franchised bus companies to retrofit Euro IV and V diesel double-deck buses of qualified models (bus models that have passed the trial) with enhanced SCR systems, to reduce their emissions before their retirement.</p>
<p>3. Reviewing the scope of the Pilot Green Transport Fund (PGTF)</p>	<p>To further facilitate the transport sectors to try out green innovative transport technologies and the wider use of those green innovative transport technologies that have been proved to be relatively mature and suitable for adoption locally, the Government will review the PGTF.</p>	<p>The relevant workload is partly absorbed with the existing resources of the EPD. Moreover, 2 additional five-year time-limited posts (until end of March 2024; including 1 Environmental Protection Officer and 1 Senior Environmental Protection Inspector) will be created to undertake and follow up on the relevant recommendations.</p>	<p>The EPD is conducting the review and aims to complete it within 2019. The EPD will consult the trades, stakeholders, Pilot Green Transport Fund Steering Committee, ACE and the EA Panel of the LegCo on the review outcome and the relevant recommendations.</p>
<p>4. Phasing out Euro IV diesel commercial vehicles (DCVs)</p>	<p>The Government has proposed to launch an incentive-cum-regulatory programme to phase out Euro IV DCVs by the end of 2023.</p> <p>To continuously improve roadside air quality, the EPD plans, by making reference to the existing scheme of phasing out pre-Euro IV DCVs, to adopt an incentive-cum-regulatory approach to progressively phase out about 40 000 Euro IV DCVs by the end of 2023 on a mandatory basis, and grant an ex-gratia</p>	<p>If positive feedback is received in the consultation with the transport trade, we will seek funding from the Finance Committee of the Legco in a timely manner for the ex-gratia payment scheme and seek manpower resources if necessary.</p>	<p>Having regard to the existing scheme of phasing out pre-Euro IV DCVs, we are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course.</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	<p>payment to owners who scrap and de-register their Euro IV DCVs by the specified deadlines. After the specified deadlines, the licences of relevant DCVs will not be renewed. We are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course. We are striving to report the detailed arrangements to the Advisory Council on the Environment and the EA Panel of the Legco in late 2019/early 2020 after working out the implementation details and consulting the trade.</p>		
Vessels			
<p>5. Pilot scheme on green ferry</p>	<p>The EPD is now discussing the specific contents and implementation details of the pilot scheme on green ferry with relevant departments. Specific implementation plan and timetable are not available for the time being.</p>	<p>We are using the existing manpower and resources to handle the preparatory work of the pilot scheme, and will apply for the required resources, if necessary, after the implementation plan is confirmed.</p>	<p>We will consult the industry and the relevant committees of the Legco after working out the implementation plan of the pilot scheme.</p>
Power plants			
<p>6. Control of emissions from the power sector</p>	<p>The EPD has formulated Technical Memorandums (TMs) in accordance with the Air Pollution Control Ordinance to stipulate the air pollutant emission caps for the power sector.</p> <p>Since 2010, the EPD has successively promulgated 7 TMs to progressively tighten</p>	<p>This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.</p>	<p>The Seventh TM was issued in November 2017, setting the emission caps for the power sector for 2022 and onwards. Compared with the emission caps under the First TM, the annual total emission caps for SO₂, NO_x and RSP set out in the Seventh</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	<p>the emission caps of sulphur dioxide (SO₂), nitrogen oxides (NO_x) and respirable suspended particulates (RSP) for the power sector.</p>		<p>TM will be reduced by 79%, 59% and 61% respectively.</p> <p>The Government approved the new five-year development plans of the two power companies in July 2018. Each of the two power companies has planned to construct a new gas-fired generating unit of its own, which will be commissioned in 2022 and 2023 respectively. After the commissioning of all new gas-fired generating units, the percentage of local gas generation will be further increased to about 55%.</p> <p>We have started the review of the Seventh TM to further tighten the emission caps for power plants.</p>
Regional Collaboration			
<p>7. Collaboration on post-2020 regional air pollutant emission reduction</p>	<p>To further improve regional air quality, the HKSAR Government and Guangdong Provincial Government are working together to formulate a regional air pollutant emission reduction plan beyond 2020.</p>	<p>The study is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.</p>	<p>Hong Kong and Guangdong have established a joint science team and launched a study on post-2020 regional air pollutant emission reduction targets and concentration levels for Hong Kong and Guangdong, with a view to formulating an emission reduction plan beyond 2020.</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
8. Regional three-dimensional (3-D) air pollution monitoring network	Hong Kong and Guangdong each has plan to build its own 3-D air pollution monitoring network that uses light detection and ranging (LiDAR) technology to monitor the formation and transportation of pollutants at heights. The two sides are exchanging preliminary views on whether a regional monitoring network can be established on this foundation.	The EPD is applying for an additional provision of \$ 55 million to purchase the LiDAR system.	The EPD is applying for an additional provision.

- End -

CONTROLLING OFFICER'S REPLY

ENB145

(Question Serial No. 1466)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

For continuing with the development of the network of Community Green Stations (CGSs) across the territory, would the Administration advise on the following:

1. Has the effectiveness of the existing CGSs been reviewed? If yes, what are the details? If no, what are the reasons?
2. Will the recycling strategy be adjusted with the implementation of the "WPRS" (or the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment)? If yes, what are the details? If no, what are the reasons?

Asked by: Hon SHEK Lai-him, Abraham (LegCo internal reference no.: 44)

Reply:

1. The Government is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. So far, 7 CGSs have been in operation, namely the Sha Tin CGS, the Eastern CGS, the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation between 2015 and 2017, and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. A tendering exercise for the service contracts of the Tai Po CGS and the Islands CGS is in progress and the 2 CGSs are expected to commence operation in 2019. Since their inception, the CGSs have been running smoothly. They have generally been well received by the local community and have been making good progress in providing support for community recycling. The Sha Tin CGS, the Eastern CGS, the Kwun Tong CGS and the Yuen Long CGS have all exceeded the designated requirements in the respective service contracts of the quantity of recyclables to be recovered (i.e. the total quantity to be recovered not less than 600 tonnes in 3 years) and those relating to the organisation of educational activities. Besides, the Sham Shui Po CGS which commenced operation in October 2017 has also been operating well, and is expected to be able to meet or even exceed the contractual requirements of the quantity to be recovered. The Tuen Mun CGS and the Kwai Tsing CGS commenced operation in September and November 2018 respectively. We will review the relevant

operational statistics to monitor their operation performance. Moreover, we will take into account views from various stakeholders and make suitable adjustment to the work of the CGSs on environmental education and recycling support as and when necessary.

2. The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) covering the regulated electrical equipment (REE) (including air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors) has been fully implemented. One of the main objectives of the WPRS is to provide the public with a convenient recycling channel for the proper collection of used REE requiring disposal. Upon purchase of a new REE item, members of the public are entitled to a statutory free removal service arranged by the seller to collect a used item of the same class. At the same time, the Government has also introduced a new and free collection service. Members of the public not purchasing a new REE item can still make an appointment with the operator for the Government for a free collection service through the recycling hotline 2676-8888. Not only can this service promote recycling, it can also ease the burden for members of the public in disposing of the used REE on their own or at a cost. To facilitate the public participation in the recycling of the used REE items requiring disposal, the CGSs will continue to receive the waste equipment handed by the public or those collected at housing estates and organisations, and deliver them to the WEEE-PARK for proper treatment and recycling.

- End -

CONTROLLING OFFICER'S REPLY

ENB146

(Question Serial No. 1467)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “enhancing the charging network for electric vehicles (EVs)”, would the Administration provide details of this target and advise whether there will be new measures to encourage installation of EV chargers in private buildings and car parks? If yes, what are the details? If no, what are the reasons?

Asked by: Hon SHEK Lai-him, Abraham (LegCo internal reference no.: 45)

Reply:

Regarding the charging arrangements for electric private cars (e-PCs), it is the Government’s policy direction that e-PC owners should perform daily charging of their e-PCs by using charging facilities at their home, workplace or other suitable places. Public charging facilities are mainly supplementary in nature, setting up for electric vehicle (EV) owners to meet occasional needs to top up their batteries on the way. They do not serve as daily charging facilities or their alternatives. Potential buyers of e-PCs should fully consider the daily charging arrangements required and should not rely on public charging facilities for daily charging of their e-PCs.

Given the above policy direction, the Government’s priority is to facilitate and encourage the installation of charging facilities in private premises when planning for the development of charging facilities for e-PCs. For private premises, granting of concession on gross floor area for new private buildings have been tightened since April 2011 to encourage developers to provide EV charging-enabling infrastructure, including provision of sufficient power supply, cabling and conduits for all parking spaces at the private car parks of the new buildings concerned. The policy helps to avoid owners of parking spaces being unable to install the required EV chargers owing to constraints in power supply capacity, cabling and conduits, etc. when EVs are widely used in future. According to the information of the Buildings Department, from April 2011 to September 2018, over 80% of parking spaces in the newly approved developments, involving about 440 car parks and around 48 000 parking spaces, will be provided with EV charging-enabling infrastructure.

For existing private premises, as there are constraints in installing charging facilities at their car parks, the Environmental Protection Department (EPD) established in 2011 a dedicated team and a hotline to provide information and technical support. The two power companies have been providing technical advice to EV owners and render service to connect power supply for car parking spaces at their homes. In recent years, several private companies have been providing EV owners, housing estates or business establishments with one-stop EV charging services, including installation of charging facilities at EV owners' parking spaces and provision of charging services at other specified locations. As far as we know, these companies have so far installed charging facilities for more than 34 housing estates.

Besides, the EPD has appealed to owners' corporations and property managers for their support in installing EV chargers at their premises through seminars and workshops. The Government will continue to strengthen its communication, publicity and education, and provide technical assistance for building owners, property management companies and owners' corporations to facilitate their installation of EV charging facilities.

Apart from continuing to explore feasible measures to promote the provision of EV charging-enabling infrastructure or chargers in existing private buildings, the Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the TD, the GPA and the LCSD which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. We will also identify suitable on-street parking spaces to install EV chargers on a trial basis and explore suitable locations to set up pilot quick charging stations for EVs.

- End -

CONTROLLING OFFICER'S REPLY

ENB147

(Question Serial No. 2019)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is estimated that the annual amount of waste electrical and electronic equipment (WEEE) treated at the Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK) will be increased from 10 830 tonnes in 2018 to 18 000 tonnes in 2019. In this connection, would the Administration advise on the following:

1. Is 18 000 tonnes the maximum annual treatment capacity of WEEE • PARK? If not, what is the percentage of this amount in the maximum treatment capacity?
2. What is the estimated percentage of the 18 000 tonnes treated in the total amount of WEEE produced annually in Hong Kong?
3. Apart from WEEE • PARK, how many institutions are there in Hong Kong which have been issued with the licences to treat WEEE so far? What are their capacities?
4. Does the Administration have any plan to allocate funding to support the treatment of WEEE?

Asked by: Hon SHIU Ka-fai (LegCo internal reference no.: 44)

Reply:

1-2. The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) has been fully implemented. The Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK), developed by the Government to underpin the WPRS, processed a total of about 10 830 tonnes of waste regulated electrical equipment (REE) (i.e. air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors) in 2018. The total design capacity of the WEEE • PARK is about 30 000 tonnes of REE a year, roughly half of the amount of waste REE generated in Hong Kong every year. If necessary, appropriate adjustment can be made to the processing lines of the plant to increase their capacity to properly treat the waste REE generated locally. It is expected that about 18 000 tonnes of waste REE will be

treated at the WEEE • PARK in 2019, accounting for around one third of the amount of waste REE generated a year.

3. As at early March 2019, the Environmental Protection Department (EPD) has issued a total of 10 waste disposal licences for REE (including the WEEE • PARK operator). According to the permitted capacity stipulated in the licences, a total of about 89 000 tonnes of waste REE can be processed a year. The licences took effect on 31 December 2018. The licensees should then submit statistics on the amount of waste REE treated to the EPD on a quarterly and annual basis. As the first quarterly report will be submitted in mid-April 2019, apart from the WEEE • PARK, the EPD does not have the statistics on the amount of waste REE treated in respect of the remaining 9 licences for the time being.

4. The reason for the Government's investment in the development of the WEEE • PARK is to ensure that Hong Kong has adequate capacity in processing the waste REE generated locally, particularly the waste REE with lower recycling value or higher processing cost, such as refrigerators and washing machines. The Government also provides a last resort service for the statutory removal service provided by the REE sellers in support of the implementation of the WPRS. With the full implementation of the WPRS, the waste REE generated in Hong Kong will be processed locally, which will provide more business opportunities for the recycling industry. We will consider how to further encourage the participation of the recycling industry in the recycling and treatment of REE having regard to market development, with a view to promoting a circular economy in Hong Kong.

- End -

CONTROLLING OFFICER'S REPLY

ENB148

(Question Serial No. 2020)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department will continue to implement in phases the producer responsibility schemes (PRSs) on waste electrical and electronic equipment (WEEE) and glass beverage containers, and to press ahead with the introduction of a PRS on plastic beverage containers. Would the Administration advise on the details, targets, timetables and expenditures involved of the related work?

Asked by: Hon SHIU Ka-fai (LegCo internal reference no.: 45)

Reply:

The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) covering the regulated electrical equipment (REE) (i.e. air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors) was fully implemented in 2018. Under the WPRS, suppliers who distribute REE are required to pay a recycling levy for REE distributed in Hong Kong, whilst sellers of REE are required to arrange free statutory removal service for consumers to dispose of an equipment of the same class that they intend to abandon. The disposal licensing control, import and export permit control and landfill disposal ban in respect of e-waste have also come into effect. The Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK), developed by the Government to underpin the WPRS, has also come into full operation. In 2018, the WEEE • PARK processed a total of about 10 830 tonnes of waste REE. It is expected that 18 000 tonnes of waste REE will be treated at the WEEE • PARK in 2019. The estimated annual operating cost of the WEEE • PARK in 2019-20 is about \$204 million.

Meanwhile, the Environment Protection Department (EPD) is actively pressing ahead with the implementation of the Producer Responsibility Scheme (PRS) on glass beverage containers. Among other things, the EPD, through open tender, has appointed 2 glass management contractors (GMCs) to undertake collection and treatment services for waste glass containers in 3 regions, i.e. Hong Kong Island (including Islands District), Kowloon

and the New Territories. The contract for Hong Kong Island and the New Territories regions commenced in November 2017, and the contract for the Kowloon region commenced in May 2018. In early 2019, the 2 GMCs have taken over the previous voluntary recycling programmes and, in parallel, further expanded their recycling networks. They have also established and commissioned new treatment facilities and are providing free glass container collection and treatment services across the territory. With the commencement of services by the 2 GMCs, the total amount of glass container collected has been increasing gradually. The amount of waste glass container collected in 2018 exceeded 13 000 tonnes, which was an increase of about 60% from the total collection amount under the relevant voluntary glass container recycling programmes in 2017. The collection amount in January 2019 increased to over 1 700 tonnes, more than doubled the monthly average collection amount under the voluntary glass container recycling programmes in 2017. There has also been a significant growth in the number of collection points set up across the territory. The number of collection points serving catering premises has nearly tripled, while the overall number serving the residential sector has increased to over 1 500 locations. Separately, we are drafting the necessary subsidiary legislation to provide for the operational details for the implementation of the scheme. We aim to submit the subsidiary legislation to the Legislative Council for scrutiny in the first half of this year. Under the contracts, the recycling target of the 2 GMCs in the first year of the contract is 15 000 tonnes in total, and will gradually increase to 50 000 tonnes per year. In 2019-20, the Government has earmarked \$104 million to pay for the collection and treatment services for glass containers under the 3 glass management contracts.

In October 2017, the EPD commissioned a feasibility study of a PRS on plastic product containers, targeting those carrying beverages or personal care products. Taking into account the recommendations of the consultant, the Government decided to accord priority to plastic beverage containers, which account for about 60% of overall waste plastic containers disposed of in Hong Kong, and proceed first with the introduction of a PRS for this type of containers. We plan to consult the public on the proposed way forward in 2019. The consultant will continue to conduct the feasibility study on a PRS on plastic personal care product containers and submit a report to the Government. The EPD is also preparing for the launching of a pilot scheme on the application of reverse vending machine (RVM) to assess its performance and effectiveness in collecting waste plastic beverage containers, as well as the operational arrangements for storing and transporting the plastic bottles collected to local recyclers for further processing. Our initial plan is to place a total of 50 to 60 RVMs at different locations in the second half of 2019, primarily at public places or government facilities with higher pedestrian flow. Through the pilot scheme, the EPD will also assess the appropriate incentive and the level that should be provided having regard to the recommendations put forward by the consultant. The EPD is now undertaking the preparatory work to work out the specific details of the pilot scheme. The estimated expenditure for the consultancy study in the financial year 2019-20 is about \$2.2 million. The estimated expenditure for the pilot scheme on the application of RVM in the financial year 2019-20 is about \$4 million, which will mainly be used to engage a contractor to carry out the scheme.

The Waste Management Policy Division of the EPD is responsible for handling various waste management policies and projects, including the implementation of the 3 PRSs on waste electrical and electronic equipment, glass beverage containers and plastic beverage containers. There is no breakdown of the manpower resources involved in the

implementation of these schemes. The EPD will create 12 permanent posts (including Environmental Protection Officers and Environmental Protection Inspectors) in 2019-20 to cope with the additional workload arising from the development and implementation of the relevant schemes.

- End -

CONTROLLING OFFICER'S REPLY

ENB149

(Question Serial No. 2021)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department will continue with the development of the network of Community Green Stations (CGSs) across the territory. Would the Administration advise on the outline plan, indicators, timetable and expenditure involved for the CGSs?

Asked by: Hon SHIU Ka-fai (LegCo internal reference no.:46)

Reply:

The Environmental Protection Department (EPD) is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. Through recycling programmes and educational activities, the CGS operators have proactively connected with the housing estates and property management companies in their districts to establish an extensive service network and provide support to the collection of low-value recyclables in the community, including waste paper, waste plastics, waste metals, small household electrical appliances, regulated electrical equipment, glass containers, compact fluorescent lamps/fluorescent tubes, and rechargeable batteries, etc. The recyclables collected will then be sent to suitable recyclers for processing. As at the end of 2018, 7 CGSs have been in operation, including the Sha Tin CGS, the Eastern CGS, the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation between 2015 and 2017, and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. The tendering for the operation contract for the Tai Po CGS and the Islands CGS is underway. They are expected to commence operation within this year. In addition, 3 other CGSs are in different stages of construction or works planning. As for the remaining 6 CGSs for which their sites have yet to be confirmed, we have been following up the views from District Councils. Taking into account the actual operating experience in other CGSs, we are continuing with site search and other associated preparation work.

Tender documents of the CGSs have set out in detail the services and performance indicators that operators are required to deliver in the contract period. In this connection, the Sha Tin CGS, the Eastern CGS, the Kwun Tong CGS and the Yuen Long CGS have exceeded the designated requirements in the respective service contracts of the quantity of recyclables collected (not less than 600 tonnes of recyclables in 3 years) and the educational activities organised. Besides, the Sham Shui Po CGS, which commenced operation in October 2017, has also been operating well, and is expected to be able to meet or even exceed the contractual requirement for the quantity of recyclables collected.

In the follow-on three-year contract for the Sha Tin CGS and the Eastern CGS, the collection targets have respectively been raised to no less than 1 310 tonnes and 1 160 tonnes of recyclables. As for the Tuen Mun CGS and the Kwai Tsing CGS, which have just commenced operation, their collection targets are no less than 900 tonnes in the three-year contract period.

The total cost for capital works of all CGSs is estimated to be about \$400 million. The operating expenditure of individual CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions.

- End -

CONTROLLING OFFICER'S REPLY

ENB150

(Question Serial No. 2022)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department (EPD) will continue to promote the use of new energy vehicles including electric vehicles (EVs), and enhance the charging network for EVs. In this connection, would the Administration advise on the following:

1. Besides EVs, will the Administration consider promoting other new energy vehicles such as hybrid electric vehicles? If yes, what are the details? If no, what are the reasons?
2. Has the Administration conducted studies on and made comparison of the performance of EVs and hybrid electric vehicles? If yes, what are the details? If no, what are the reasons?
3. What are the details, indicators, timetable and estimated expenditure to be involved regarding the plan to enhance the charging network for EVs?

Asked by: Hon SHIU Ka-fai (LegCo internal reference no.: 47)

Reply:

1. Commercial vehicles (CVs) account for 95% of the vehicular emissions of respirable suspended particulates (RSP) and nitrogen oxides (NO_x), both major air pollutants. Hence, CVs have all along been a major target of the Government's measures to improve roadside air quality. Electric vehicles (EVs) have no tailpipe emissions. Replacing conventional vehicles, especially CVs, with EVs can help improve roadside air quality.

Compared to conventional vehicles, hybrid electric vehicles (hybrid vehicles) in general can offer better fuel economy, but they still have tailpipe emissions and their fuel economy performance depend on the driving modes. In comparison, EVs have no tailpipe emissions, and are more effective in improving roadside air quality in a high-density environment in Hong Kong. Owing to this environmental reason and taking into account the Government's standing policy to promote the use of public

transport, we consider that it is appropriate to grant first registration tax (FRT) concession for electric private cars (e-PCs) only. The Government currently has no plan to provide FRT concession for hybrid private cars.

As CVs have been a major source of roadside air pollution, the Government has been, apart from waiving FRT of electric commercial vehicles (e-CV) in full, offering reduction in the FRT of newly registered environment friendly CVs starting from 1 April 2008. The Environmental Protection Department (EPD) has been reviewing annually the qualifying emission standards for environment friendly CVs under the scheme in the light of vehicle technological advancement and the prevailing statutory emission standards for newly registered vehicles such that the tax incentive is available only to CVs with an outstanding environmental performance. Currently, vehicles that meet the qualifying emission standards for environment-friendly CVs already include some hybrid CVs.

2. Apart from offering the above FRT concessions to encourage buyers to choose environmental friendly CVs, the Government has been striving to promote the use of green innovative transport technologies in CVs, including offering subsidies to the public transport sectors, goods vehicle operators and charitable/non-profit making organisations through the Pilot Green Transport Fund (the Fund) to encourage the testing of green innovative transport technologies. The trials cover EVs and hybrid vehicles. Moreover, the Government also subsidises the franchised bus companies to conduct trials on single-deck electric and double-deck hybrid buses. Details of the trials are as follows:

As at the end of February 2019, the Fund approved 139 trials⁸. They included 74 trials of EVs and 57 trials of hybrid vehicles, involving 105 EVs (77 light goods vehicles, 21 single-deck buses, 3 light buses, 3 taxis and 1 medium goods vehicle (tractor)) and 89 hybrid vehicles (48 light goods vehicles, 28 medium goods vehicles, 11 light buses and 2 single-deck buses).

EVs

According to the current trial results, high production cost, limited service life, long charging time and/or low energy density of the batteries of electric commercial vehicles (e-CVs) on the local market are the key constraints for e-CVs to become popular. The hilly terrain in Hong Kong and the need to provide air-conditioning during summer driving also reduce the driving range of e-CV batteries. Therefore, most of the e-CVs on trial are yet to be able to cope with the requirements of the local transport sectors in respect of driving range and charging time. All the 3 electric taxis that were once trialed under the Fund have been re-registered as private cars after completion of the trials because taxis generally run almost a whole day and under normal operation cannot spare 4 hours a day for charging. Electric light buses and single-deck buses also have

⁸ As an applicant who was approved to trial electric light goods vehicle (e-LGV) withdrew his application due to his own business reasons, the number of applications approved was 1 short of the 140 reported in the discussion paper (LC Paper No. CB(1)487/18-19(03)) of the Panel on Environmental Affairs of the Legislative Council dated 28 January 2019.

experienced similar problems. The electric light buses and single-deck buses trialed under the Fund, after a full charge taking 4 hours, had a driving range lower than the respective daily mileages of a typical public light bus and a typical single-deck bus.

The trial results also showed that e-LGVs are more likely to prevail than other e-CVs in Hong Kong and are suitable for operators who require relatively lower daily mileage and payload because batteries of these vehicles can be topped up outside operation hours. We have organised experience sharing workshops for the transport sectors suitable for adopting this vehicle type to promote the use of e-LGVs.

For those e-CVs trialed under the Fund, they could save 31% to 91% of their energy cost on an individual vehicle basis as compared with their conventional counterparts.

Hybrid vehicles

Hybrid vehicles could operate without charging up their batteries by an external source, so their operation is similar to that of conventional vehicles. The transport sectors have thus less doubt about trialing hybrid commercial vehicles under the Fund. However, the hybrid commercial vehicle models on the local market are limited, with only 2 hybrid light goods vehicle models, 2 hybrid medium goods vehicle models, 1 hybrid light bus model and 1 hybrid single-deck bus model, all of which have already been trialed under the Fund.

Higher fuel economy is the major merit of hybrid vehicles over the conventional vehicles, thereby reducing operating cost and air pollutant emissions. However, the fuel economy of a hybrid vehicle depends on the operation routes. A route requiring frequent start-stop will harness better the hybrid drive-train. If a route is dominated by highway driving, a hybrid vehicle can hardly outperform its conventional counterpart in fuel economy. The trial results showed that the hybrid goods vehicles incurred fuel cost saving ranging from 4% to 32% as compared with their conventional counterparts whilst the corresponding figure for the hybrid light buses was not more than 4%. The latter had a poorer fuel economy performance which might be caused by inadequate cooling for their batteries. A new model has been introduced by the manufacturer of the hybrid light buses to replace its old model and the new model is being trialed under the Fund.

Trial of single-deck electric franchised buses

The Government has allocated \$180 million to fully subsidise the franchised bus companies to purchase 36 single-deck electric buses (including 28 battery-electric buses and 8 supercapacitor buses and related charging facilities) for conducting a two-year trial on a number of routes to test out their operational performance, reliability and economic feasibility in local conditions.

Currently, 26 battery-electric buses and 6 supercapacitor buses have commenced operation. The remaining electric buses are expected to commence operation progressively in 2019. To effectively monitor and assess the operational efficiency and performance of single-deck electric buses, we have set up a task force comprising representatives from the relevant franchised bus companies, the EPD, the TD, as well as local academics.

Trial of double-deck hybrid franchised buses

The trial of double-deck hybrid buses was fully commenced by the end of 2014 and completed by the end of 2016. In terms of driving performance, the hybrid buses are comparable with conventional diesel buses. However, the emission performance of hybrid buses over Euro VI conventional buses is not substantial and their fuel economy performance in the local operation environment fell far short of expectation. As such, there is no strong justification for promoting their use in the franchised bus operation until their fuel economy performance has been significantly improved and their price has become more competitive.

The purpose of the above trials is to test whether the technologies of vehicles other than conventional fuel-driven vehicles can suit the local environment and the actual modus operandi of the trade. Therefore, only a comparison with the performance of conventional fuel-driven vehicles can be made. Besides, as models of commercial EVs or hybrid vehicles available in the local market are limited, requiring the testers to procure suitable EVs and hybrid vehicles for trials concurrently might bring difficulties to the testers in the process of procurement. As such, a direct comparison between EVs and hybrid vehicles in respect of their performance is not included in the above trials.

3. The Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the Transport Department (TD), the Government Property Agency and the Leisure and Cultural Services Department which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. The anticipated number of facilities and estimated expenditure are as follows:

Year	No. of proposed additional medium public EV charging facilities	Estimated expenditure (\$m)
2019-20	About 170 medium chargers	17
2020-21	About 600 medium chargers	60
2021-22	About 430 medium chargers	43

Remarks:

The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

- End -

CONTROLLING OFFICER'S REPLY

ENB151

(Question Serial No. 2023)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

During 2019-20, the Environmental Protection Department will prepare to launch an incentive-cum-regulatory scheme to progressively phase out Euro IV diesel commercial vehicles by the end of 2023. However, the Euro IV vehicles covered have a wide age span with the youngest vehicles being only about 6 years old. As such, it is suggested that the vehicle age of 15 years be set as the upper limit and the last year of replacement be changed to 2027, and the ex-gratia payment level is based on the vehicle age where the younger the vehicles are, the more they can receive for the ex-gratia payment. Has the Government assessed the implications of such proposal on the estimates? Are the implications acceptable and practicable?

Asked by: Hon SHIU Ka-fai (LegCo internal reference no.: 48)

Reply:

To continuously improve roadside air quality, the Environmental Protection Department plans, by making reference to the existing scheme of phasing out pre-Euro IV diesel commercial vehicles (DCVs), to adopt an incentive-cum-regulatory approach to progressively phase out about 40 000 Euro IV DCVs by the end of 2023 on a mandatory basis, and grant an ex-gratia payment to owners who scrap and de-register their Euro IV DCVs by the specified deadlines. After the specified deadlines, the licences of relevant DCVs will not be renewed. We are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course. We are striving to report the detailed arrangements to the Advisory Council on the Environment and the Panel on Environmental Affairs of the Legislative Council in late 2019/early 2020 after working out the implementation details and consulting the trade.

- End -

CONTROLLING OFFICER'S REPLY

ENB152

(Question Serial No. 3230)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Provision for 2019-20 is \$937.0 million (29.6%) higher than the revised estimate for 2018-19. It is learnt that this is mainly due to increased provision for waste management initiatives, increased contract payments for the operation of waste management facilities and increased cash flow requirement for non-recurrent projects. In addition, there will be a net increase of 148 posts in 2019-20. Would the Administration explain in detail? For the 148 new posts, please tabulate the number of staff and the main duties by post.

Asked by: Hon SHIU Ka-fai (LegCo internal reference no.: 49)

Reply:

Under Programme "Waste", the estimate for 2019-20 is \$937.0 million (29.6%) higher than the revised estimate for 2018-19. This is mainly due to:

- (1) Increased provision for waste management initiatives, including implementation of several producer responsibility schemes, preparation for municipal solid waste charging, establishment of new outreaching teams, expansion of food waste treatment capacity through the "food waste/sewage sludge anaerobic co-digestion" technology and work related to other waste reduction and recycling initiatives;
- (2) Increased cash flow requirement for the Recycling Fund, a non-recurrent project;
- (3) Contract payments for the operation of waste management facilities; and
- (4) The net increase of 148 posts, mainly for implementing the above waste management initiatives, are tabulated below-

Post	Net Increase of posts
Assistant Director of Environmental Protection	+1
Principal Environmental Protection Officer	+3

Post	Net Increase of posts
Senior Environmental Protection Officer	+12
Environmental Protection Officer/ Assistant Environmental Protection Officer	+29
Chief Environmental Protection Inspector	+2
Senior Environmental Protection Inspector	+26
Environmental Protection Inspector	+34
Senior Architect	+1
Architect/ Assistant Architect	+1
Senior Administrative Officer	+1
Chief Executive Officer	+2
Executive Officer I	+2
Executive Officer II	+1
Chief Supplies Officer	+1
Official Languages Officer II	+1
Accounting Officer I	+2
Accounting Officer II	+1
Clerical Officer	+1
Assistant Clerical Officer	+8
Clerical Assistant	+4
Personal Secretary I	+1
Personal Secretary II	+5
Motor Driver	+8
Supplies Supervisor I	+1
Total	+148

- End -

CONTROLLING OFFICER'S REPLY

ENB153

(Question Serial No. 3285)

Head: (44) Environmental Protection Department

Subhead (No. & title): (700) General non-recurrent

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

In the revised estimated expenditure for 2018-19 of the Environmental Protection Department (EPD), a sum of \$1.7 million is allocated for the Establishment of the Manufacturing, Inventory and Distribution System for Designated Garbage Bags and Designated Labels under the Municipal Solid Waste Charging – Feasibility Study. Would the Administration advise on the details of this item, including the organisation responsible for the study, the scope, targets and timetable of the study, etc.?

Asked by: Hon SHIU Ka-fai (LegCo internal reference no.: 50)

Reply:

According to the Waste Disposal (Charging for Municipal Solid Waste) (Amendment) Bill 2018, adhered to the “polluter-pays” principle and built upon the existing municipal solid waste (MSW) collection and disposal system, MSW charges are proposed to be levied through the dual modes of (a) charging by designated garbage bags/designated labels and (b) charging by weight-based “gate-fee”. It is expected that some 80% of the MSW will be charged through the use of pre-paid designated garbage bags.

We propose to establish a distribution network comprising some 4 000 sales points at supermarkets, convenience stores, gas stations and post offices, etc., alongside the manufacturing, inventory and distribution system (the system) for designated garbage bags and designated labels, so as to ensure an extensive and stable supply of designated garbage bags and designated labels in the market by the time MSW charging is implemented. We plan to outsource the relevant manufacturing process to contractors, and engage a separate contractor to coordinate the operation of the entire system. In this connection, the Environmental Protection Department commissioned AECOM Asia Company Limited (the consultant) through open tendering in 2018 to conduct relevant study and preparatory work for the above plan, and recommend a practical and feasible proposal to the Government

after making reference to the relevant experience and circumstances of other cities and Hong Kong. We expect that the consultant will complete the relevant study in 2020.

- End -

CONTROLLING OFFICER'S REPLY

ENB154

(Question Serial No. 2786)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Ombudsman conducted a direct investigation on the Government's Implementation of the New Strengthened Control Measure of Exhaust Emissions from Petrol and Liquefied Petroleum Gas Vehicle in 2015, and recommended the Environmental Protection Department to discuss with the Transport Department the interrelationship between nitrogen oxides emission testing and the annual vehicle examination, and to coordinate on whether the test with a chassis dynamometer (commonly called a "treadmill") should be included as part of the annual examination. In this connection, would the Department give a response to the following:

- (1) What is the latest development of the coordination and follow-up actions taken by the Administration in response to the various recommendations made by the Ombudsman at that time?
- (2) According to many videos and the information on the internet, some lawbreakers have claimed that they can adjust the exhaust emission readings of vehicles to ensure that the vehicles pass the relevant emission test. Is the Administration aware of this phenomenon? If yes, has it ever taken any follow-up actions? What is the number of enforcement actions involved?
- (3) What was the number of Emission Testing Notices issued by the Administration by month in the past 3 years? What was the percentage of the vehicles which failed to pass the subsequent emission test with treadmills?

Asked by: Hon TAM Man-ho, Jeremy (LegCo internal reference no.: 15)

Reply:

- (1) To improve roadside air quality and better protect public health, the Environmental Protection Department (EPD) has been using roadside remote sensing equipment to strengthen the control of emissions from petrol and liquefied petroleum gas (LPG) vehicles since 1 September 2014, with a view to improving the air pollution problem caused by poor

maintenance of vehicles. If a vehicle is found emitting excessively, the EPD will issue an Emission Testing Notice (ETN) to its owner, requiring the owner to repair the vehicle promptly and send the repaired vehicle to a Designated Vehicle Emission Testing Centre (DVETC) of the EPD for an emission test conducted with a chassis dynamometer (commonly called a “treadmill”) within the deadline specified in the ETN to see whether the vehicle emits excessively anymore. If the vehicle owner does not comply with the requirements of the ETN or whose vehicle fails to pass the test, the EPD will notify the Transport Department (TD) to cancel the licence of the vehicle concerned. Vehicle owners have to pay a test fee prescribed under the Road Traffic Ordinance each time they use the emission test service provided by the DVETC.

The Ombudsman conducted a direct investigation on the Government’s Implementation of the New Strengthened Control Measure of Exhaust Emissions from Petrol and Liquefied Petroleum Gas Vehicles in 2015, and published an investigation report and made improvement recommendations in the following four aspects:

- (i) Coordination between the EPD and the TD;
- (ii) To enhance training and support for the maintenance trade;
- (iii) To step up publicity and promotion; and
- (iv) To ensure sustainability of the DVETCs.

Please refer to the **Annex** for the improvement recommendations made by the Ombudsman and the Government’s follow up actions.

The EPD and the TD submitted to the Ombudsman joint progress reports on the follow up actions taken by the Government between August 2016 and February 2018. Subsequently in May 2018, the Ombudsman expressed its decision to end the follow up action on the recommendations in this direct investigation report.

(2) The EPD has not received any report that individuals had acquired the certificate of compliance for the dynamometer emission test by illegal means. We have all along sent officers to inspect the operation of the DVETCs. In 2018, we conducted 17 surprise inspections and did not find any of the above irregularity.

(3) The monthly figures of ETNs issued by the EPD and vehicles failing to pass the chassis dynamometer emission test in the past 3 years (2016-2018) are as follows:

Month/Year	No. of ETNs issued ^{Note}	No. of vehicles failing to pass the “treadmill” emission test
1/2016	276	3
2/2016	371	1
3/2016	316	1
4/2016	248	3
5/2016	204	5
6/2016	297	1
7/2016	135	2
8/2016	132	6

Month/Year	No. of ETNs issued ^{Note}	No. of vehicles failing to pass the “treadmill” emission test
9/2016	239	1
10/2016	77	1
11/2016	177	3
12/2016	180	0
1/2017	167	1
2/2017	196	3
3/2017	177	5
4/2017*	74	2
5/2017*	0	0
6/2017*	0	0
7/2017*	0	0
8/2017	785	0
9/2017	209	0
10/2017	386	1
11/2017	569	3
12/2017	425	2
1/2018	686	5
2/2018	442	0
3/2018	647	4
4/2018	468	6
5/2018	489	6
6/2018	355	3
7/2018	341	0
8/2018	551	2
9/2018	296	2
10/2018	496	1
11/2018	511	2
12/2018	502	5

Note:

The number of ETNs issued in 2018 increased. This is mainly because the EPD has strengthened the use of roadside remote sensing equipment progressively since 2018, with the maximum number of monitoring points operated each day increased from 3 previously to 5 currently. In 2018, the percentages of petrol and LPG vehicles found to have excessive emissions were about 5% and about 20% respectively, which were comparable to that in 2017.

*Hong Kong’s weather has been unstable since the latter part of April 2017, and the scheduled roadside remote sensing monitoring work could not be conducted effectively. As such, the EPD decided to carry out repair work for all remote sensing equipment concurrently (which was originally scheduled to be carried out in stages). Eventually, the overall repair time has shortened to about 3 months, which was half the time as expected, and the roadside monitoring action was fully resumed in August 2017.

**Recommendations of the Ombudsman and the latest situation of
the Government's follow up work**

No.	Contents of recommendations	Latest situation
(i) Coordination between the EPD and the TD		
1.	The EPD should further discuss with the TD on the interrelationship between nitrogen oxides (NOx) testing and the annual vehicle examination and ensure that both departments work for the same goal. They should also review with the relevant policy bureaux the long-term strategy and principle in implementing the New Strengthened Control Measure of Exhaust Emissions from Petrol and Liquefied Petroleum Gas Vehicles (the "New Measure") such that a specific schedule for implementing such strategy and principle can be drawn up as soon as possible.	The EPD has carefully explored with the TD the feasibility of incorporating the dynamometer emission test into its annual roadworthiness examination for renewal of vehicle licence. The conclusion was that it is more cost effective and less disruptive to vehicle owners if we target directly petrol and LPG vehicles with excessive emissions by deploying more roadside remote equipment than including the dynamometer emission test in the TD's annual vehicle examination since evidence so far suggested that vehicles with excessive emissions make up only a small part of the petrol and LPG vehicle fleets (the percentages of vehicles with excessive emissions in the petrol and LPG fleets are about 5% and 20% respectively, a substantial decrease from 10% and 80% before implementation of the scheme), reflecting the significant effectiveness of the roadside remote sensing scheme for reducing LPG and petrol vehicles with excessive emissions. If we are to add the dynamometer emission test into the TD's annual vehicle examination, the fee could be increased by up to 106%, thus affecting all petrol and LPG vehicle owners. Under the current targeted approach, only those owners whose vehicles were found to have excessive emissions will be subject to payment of the test fee. Moreover, the Road Transportation Sub-group (Sub-group), set up by the EPD to review the Air Quality
2.	Besides requiring new Designated Car Testing Centres (DCTCs) to reserve enough space for installing "treadmills", the EPD and the TD should set out a timetable for the existing DCTCs that can be retro-fitted with "treadmills" to proceed with the installation, and provide support to them where needed.	
3.	The TD should actively consider how to speed up its approval for new DCTCs (paragraph 4.12 of the Report) which have space reserved for installing "treadmills". It should also study with the EPD ways to ensure that these new centres will have "treadmills" installed at an appropriate time for conducting emission tests.	
4.	The TD and the EPD should closely follow up on the progress of the task force (comprised of representatives from the two departments and DCTC operators) on its	

assessment of the impact on the time and space needed for the annual vehicle examination should the “treadmill” test be included as part of or be conducted concurrently with the annual examination (refer to the event dated 4/2015 at Annex of the Report and paragraph 5.24 of the Report).

Objectives (with members comprising professional bodies of the transport trade, merchants’ associations, the academics, relevant trades, green groups as well as representatives from relevant government policy bureaux and departments) has discussed the proposal of requiring all vehicles to undergo the dynamometer emission test during the annual vehicle examination. The Sub-group considered that the current emission test and the control scheme (including remote sensing scheme) has effectively reduced the number of vehicles with excessive emissions while the roadside air quality has also significantly improved. The Sub-group did not support the mandatory inclusion of the dynamometer test in the annual vehicle examination, and pointed out that the mandatory inclusion would lead to a substantial increase in the testing time and an additional cost, which was not cost-effective. Members suggested that the EPD should consider continuing to adopt suitable action against vehicles with excessive emissions.

The EPD informed the TD’s DCTC operators in February 2017 of the Government’s decision not to incorporate the dynamometer emission test into the annual vehicle examination of petrol and LPG vehicles, and reported this decision to the Panel on Environmental Affairs of the Legislative Council in May 2017. The EPD and TD also reported this decision in the joint progress report submitted to the Ombudsman in July 2017.

The EPD has strengthened the use of roadside remote sensing equipment progressively since 2018, with the maximum number of monitoring points operated each day increased from 3 previously to 5 currently.

(ii) To Enhance Training and Support for the Maintenance Trade		
5.	<p>The EPD should strengthen its cooperation with the training organisations for the trade (such as Vocational Training Council (VTC), universities and other professional bodies) to organise more courses and provide stronger technical support to help members in the trade to master the skills of emission-related repairs.</p>	<p>The VTC has provided courses on repairing petrol and LPG vehicles for the vehicle maintenance trade since December 2014. Besides, taking into account the needs of the trade, the EPD has organised 17 seminars to share cases of repairing vehicles with excessive emissions and conduct demonstration of the dynamometer emission test. Since the second half of 2016, the EPD has not received further request from the trade for organising seminars or conducting emission test demonstrations.</p> <p>In 2018, the EPD monitored a total of over 900 000 vehicle counts with remote sensing equipment and issued about 5 700 ETNs, with the overall compliance rate of the dynamometer test being 99%. As regards a few number of vehicles not passing the test, it is considered that this was because the owners of older vehicles were not willing to properly repair their vehicles. Overall speaking, with the support of the EPD, the vehicle maintenance trade has mastered the skills for repairing petrol and LPG vehicles with excessive emissions. The EPD will keep communication with the trade and jointly cope with the challenge of new maintenance technology.</p>
6.	<p>The EPD should discuss with the Electrical and Mechanical Services Department whether to add mechanics specialised in emission-related repairs as another category of registered vehicle mechanics in order to ensure that members in the trade are equipped with the relevant technical skills. This would also help vehicle owners to find mechanics with the required expertise to repair the exhaust system of</p>	<p>The Vehicle Maintenance Technical Advisory Committee (the Committee) set up by the Government and the vehicle maintenance trade advises on the Voluntary Registration Scheme for Vehicle Mechanics (“VRSVM”) and the Voluntary Registration Scheme for Vehicle Maintenance Workshops.</p> <p>The Committee recognised that</p>

	their vehicles.	“maintenance of emission system” had already been covered in the existing “Mechanical” registration classes under the VRSVM and agreed to maintain the existing arrangement.
7.	The EPD should provide more financial or technical support to the vehicle maintenance trade for carrying out emission tests, so that they can measure the emissions level of vehicles by installing “treadmills” or with other portable devices that can detect NOx emissions. The Department should also help them obtain information on vehicle maintenance and repairs, such as the repair manuals of different vehicle models.	Currently, the maintenance trade generally accepts the use of portable emission analysers in conducting repair work, and there are vehicle repair garages equipped with this kind of devices for vehicle check and repair. Garages that have not purchased this kind of devices may provide such inspection service through outsourcing or borrow these devices from other vehicle maintenance workshops.
(iii) To Step up Publicity and Promotion		
8.	Before the annual examination can be upgraded to include NOx testing, the EPD should step up publicity regarding the “New Measure”, especially the “treadmill” testing method. Vehicles owners should also be alerted to the fact that even if their vehicles have passed the annual examination, they may still fail in the “treadmill test”.	The EPD has implemented the recommendation of the Ombudsman.
9.	The TD should take action to promote the “New Measure” to the public (for example, it can provide relevant information on its website and at its Licensing Offices) to ensure that vehicle owners are aware of the operation of the “New Measure” and their own maintenance responsibility.	The TD has implemented the recommendation of the Ombudsman.
(iv) To Ensure Sustainability of DVETCs		
10.	The EPD should watch closely the operation of the existing DVETCs and provide support where necessary. It should also make advance planning lest the effectiveness of the “New Measure” would be compromised if any such centres	The EPD has implemented the recommendation of the Ombudsman. The EPD considers that it is a business decision of individual DVETC as to whether it will sustain operation and it is not appropriate for the Department to

	encounter difficulties in business operation.	get involved so as to avoid misunderstanding.
11.	The EPD should consider formulating measures to provide incentives to vehicle owners so that they would be encouraged to take their vehicles for an emission test. This would certainly boost the effectiveness of the “New Measure”.	The EPD considers that the purpose of setting up DVETCs is to tie in with the “New Measure” to provide facilities for testing reported vehicles and they are not designed for conducting routine vehicle exhaust emission tests in general.

- End -

CONTROLLING OFFICER'S REPLY

ENB155

(Question Serial No. 2790)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

8 member nations of the Clean Energy Ministerial issued the EVI Government Fleet Declaration (the Declaration) in 2016, calling for active adoption of electric vehicles (EVs) in government fleets in countries around the world. In this connection, please advise on the following:

- (1) Has the Government adopted the contents of the Declaration and built a government fleet of EVs proactively? If yes, what are the relevant plans? If no, what are the reasons?
- (2) What were the numbers of vehicles owned by various government departments in the past 3 years? Among them, what were the numbers of EVs and non-EVs respectively?
- (3) What were the numbers of EVs and non-EVs procured by various government departments in the past 3 years (by vehicle type)?
- (4) Please tabulate the numbers of licensed EVs and non-EVs of various government departments as at the end of February 2019 (by vehicle type).
- (5) Will the Government set a target of procuring EVs as a replacement when the existing non-EVs (particularly private cars, motorcycles and light goods vehicles) are due for retirement so as to increase the number of EVs in the government fleet? If yes, what are the details? If no, what are the reasons?

Asked by: Hon TAM Man-ho, Jeremy (LegCo internal reference no.: 19)

Reply:

(1) & (5)

There were 253 electric vehicles (EVs) of various models, mainly small and medium cars, in the government fleet as at the end of 2018. When deciding on whether to use EVs, government departments mainly consider if the development of EV technologies (including vehicle performance, durability of batteries, the highest mileage sustained after a full charge, etc.) can meet their daily operational needs. Currently, the driving range of electric cars has been improved generally. As at the end of February 2019, electric cars accounted for 10.8% of the total number of government cars. As regards specialised vehicles (such as refuse collection vehicles), suitable EV models are still not available in the market; for electric goods vehicles, electric motorcycles and electric buses, the battery performance is

still unsatisfactory (including long charging time, charging not achieving the rated capacity, relatively short driving range and low payload, etc.); and for electric vans, only individual models have recently been available for coping with uses with lower mileage and payload. Therefore, these EVs only account for about 1.7% of the relevant type of government vehicles. The Government will keep abreast of the latest technological development of EVs and encourage departments to use EVs to replace their retiring vehicles subject to the availability of suitable models in the market and the performance of the EVs in meeting departments' operational needs.

(2) The numbers of government EVs and non-EVs in the past 3 years are tabulated below:

Year	Number of EVs	Number of non-EVs	Total number of government vehicles
As at the end of 2018	253	6 309	6 562
As at the end of 2017	254	6 299	6 553
As at the end of 2016	249	6 243	6 492

(3) The numbers of EVs and non-EVs purchased by the Government in the past 3 years are tabulated below (by vehicle type):

Year	EVs		Non-EVs					
	Car	Van	Car	Van	Cross Country Vehicle	Bus	Truck	Specialised Vehicle
2018	7	-	217	258	2	55	3	158
2017	7	-	475	90	4	5	1	75
2016	10	5	165	115	12	61	13	268

(4) The numbers of government EVs and non-EVs as at the end of February 2019 are tabulated below (by vehicle type):

EVs			Non-EVs						
Motorcycle	Car	Van	Motorcycle	Car	Van	Cross Country Vehicle	Bus	Truck	Specialised Vehicle
62	168	22	243	1 388	1 338	99	691	318	2 233

- End -

CONTROLLING OFFICER'S REPLY

ENB156

(Question Serial No. 2791)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the work of the Steering Committee on the Promotion of Electric Vehicles (the Steering Committee), please advise on the following:

(1) How many meetings were convened by the Steering Committee in each of the past 3 years? What were the agenda and minutes of each meeting? What was the attendance rate of its members?

(2) Has the Government consulted the Steering Committee before adjusting the First Registration Tax for electric private cars, introducing the One-for-One Replacement Scheme and making any amendments in past 3 years? If yes, what are the relevant discussions? If no, what are the reasons?

(3) The Steering Committee is directly led by the Financial Secretary. Will the Government raise the accountability and transparency of the Steering Committee to keep the public informed of the relevant policy discussions? If yes, what are the specific arrangements? If no, what are the reasons?

(4) What criteria does the Government apply when appointing members of the Steering Committee? Will the Government consider appointing representatives from users, manufacturers and agents of electric vehicles, power companies, car park operators, etc.? If no, what are the reasons?

Asked by: Hon TAM Man-ho, Jeremy (LegCo internal reference no.: 20)

Reply:

(1), (2) and (3)

The Steering Committee on the Promotion of Electric Vehicles (the Committee), established in 2009 and chaired by the Financial Secretary, advises the Government on strategies and initiatives in promoting the use of electric vehicles (EVs). Over the past 3 years (2016-2018), a total of 6 meetings were convened and the overall attendance rate was about 80%. Agendas discussed at the meetings include measures to facilitate the installation and enhancement of charging facilities, establishment of the Pilot Green Transport Fund (PGTF) to test out green transport technologies, promotion of the use of EVs in public transport, government procurement of EVs, measures to encourage the public and the transport sectors

to purchase or try out EVs, etc. As measures like the adjustment of first registration tax (FRT) for vehicles are market-sensitive information, the Government would not consult the Committee beforehand.

To encourage frank and open discussion, the Committee's meetings are conducted confidentially. Prior to the formulation of measures to promote the use of EVs, the Government will consider various factors including the Committee's advice. We have no plan at this stage to disclose the discussion of the Committee.

4. Members of the Committee are appointed by the Financial Secretary. Those of the current term are drawn from sectors such as transport and automobile service industries, power companies, the academia, research and development organisations, battery recycling and property management industries, which are related to the promotion of EVs and EV charging facilities.

- End -

CONTROLLING OFFICER'S REPLY

ENB157

(Question Serial No. 2792)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the Bureau's commitment to "promoting the use of electric vehicles (EVs) and enhancing the charging network for EVs", would the Administration give a response to the following:

- (1) Since April 2011, the Government has granted concessions on gross floor area for car parks in new buildings to encourage developers to provide EV charging infrastructures in car parks during the construction stage of new buildings, but developers were not required to arrange for electricity connection. EV owners, therefore, could not use these chargers. What measures did the Government take to improve such situation in the past year?
- (2) Will the Government revise the Technical Guidelines for Electric Vehicle Charging-enabling for Car Parks of New Building Developments (the Guidelines) as soon as possible to specifically require that EV chargers should be installed and electricity meter connection should be arranged at parking spaces provided with EV charging-enabling infrastructure? If yes, what are the specific measures, timetable, manpower and expenditure? If no, what are the reasons? What measures has the Government put in place to prevent developers from being granted gross floor area concessions by using the loopholes of the Guidelines before making the amendments?
- (3) As for the "One-for-One Replacement" Scheme for EVs, what are the numbers of tax concession applications received and approved respectively by the Administration (i) on a monthly basis and (ii) since the launching of the "One-for-One Replacement" Scheme?
- (4) What was the number of registered private cars that met the two requirements (i.e. "having been first registered for 6 years or more" and "its owner having owned the private car for 18 months or more without interruption") as at 28 February 2019? What is the anticipated number of additional eligible private cars each year up to 31 March 2021?
- (5) Will the Administration consider granting more tax concessions for vehicles first registered for a longer period of time when they participate in the "One-for-One Replacement" Scheme so as to attract more car owners to phase out their old fuel-driven vehicles with high emissions and switch to use zero-emission EVs? If yes, when will the relevant revision be introduced? If no, what are the reasons?

Reply:

(1) & (2)

The Government's priority is to facilitate and encourage the installation of charging facilities in private premises when planning for the development of charging facilities for electric private cars (e-PCs). For private premises, granting of concession on gross floor area (GFA) for new private buildings have been tightened since April 2011 to encourage developers to provide electric vehicle (EV) charging-enabling infrastructure, including provision of sufficient power supply, cabling and conduits for all parking spaces at the private car parks of the new buildings concerned. The policy helps to avoid owners of parking spaces being unable to install the required EV chargers owing to constraints in power supply capacity, cabling and conduits, etc. when EVs are widely used in future. According to the information of the Buildings Department, from April 2011 to September 2018, over 80% of parking spaces in the newly approved developments, involving about 440 car parks and around 48 000 parking spaces, will be provided with EV charging-enabling infrastructure.

There were views that the Government could require developers to provide EV chargers for public use under the GFA concession mechanism. The Government has carried out an examination in this regard. The Building Ordinance (BO) aims to ensure that the planning, design and construction of private premises comply with the prescribed standards regarding safety and sanitation, but not to regulate the usage right of the building services. It is also difficult for the Government to ensure through the BO that the intended use of the building services installed in the premises will continue to be maintained after the occupation. Hence, we consider the suggestion not viable. The Government will continue to review other guidelines and explore feasible instruments so as to strike a balance between requiring developers to continue providing public EV chargers and not undermining the interest of private property ownership.

(3) The numbers of applications received and approved by the Transport Department since the introduction of the "One-for-One Replacement" Scheme (the Scheme) in February 2018 till the end of February 2019 are as follows:

Month	No. of applications received^{1,2}	No. of applications approved²
February 2018	0	0
March 2018	11	11
April 2018	28	27
May 2018	13	14
June 2018	28	24
July 2018	12	13
August 2018	41	33
September 2018	44	47
October 2018	48 ²	49 ²
November 2018	49	50
December 2018	55	55

January 2019	47	44
February 2019	22	22
Total	398	389

Note:

- (1) 3 applications were not approved for not complying with the eligibility criteria and 6 applications are still under vetting.
- (2) Including 1 application that had previously been approved but was withdrawn by the applicant in December 2018.

(4) The number of registered private cars (PCs) that met the two requirements of the Scheme (i.e. “having been first registered for 6 years or more” and “its owner having owned the PC for 18 months or more without interruption”) as at 28 February 2019 and the estimated numbers for the coming 2 years are as follows:

	Having been first registered for 6 years or more and its owner having owned the PC for 18 months or more without interruption
No. of registered PCs as at 28 February 2019	261 021
Estimated maximum no. of registered PCs up to 31 March 2020	373 410 (Estimated maximum addition of 112 389 as compared to 2019)
Estimated maximum no. of registered PCs up to 31 March 2021	450 867 (Estimated maximum addition of 77 457 as compared to 2020)

Note: The above estimated numbers of PCs are based on the assumptions that there is no increase or decrease in the total number of registered PCs in Hong Kong from 28 February 2019 till 31 March 2021 and there is no transfer of ownership of PCs by the relevant PC owners.

(5) To strike a balance between the objectives of promoting the use of e-PCs and not increasing the overall number of PCs at the same time, the Government introduced the Scheme on 28 February 2018 to encourage existing PC owners to choose EVs when they need to replace their cars. Purchasers of e-PCs who scrap and de-register their eligible old PCs can enjoy a higher first registration tax concession.

Having examined the views from members of the public after the implementation of the Scheme on 28 February 2018, the Government has decided to relax the eligibility criteria of ownership period and licensed period of an “old private car” under the Scheme with effect from 28 January 2019 until the end of the Scheme (i.e. 31 March 2021). After relaxing the relevant criteria, the number of eligible vehicles has increased by 30% to more than 250 000. The Government considered that the existing arrangement has balanced various factors. The Government will review the relevant arrangement before the end of the current first registration tax arrangement for EVs (i.e. 31 March 2021) as scheduled. There is no plan to change the established arrangement at this stage.

- End -

CONTROLLING OFFICER'S REPLY

ENB158

(Question Serial No. 0292)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in Programme (1) that the Department set up the \$1 billion Recycling Fund in 2015 to facilitate the upgrading of the operational capabilities and efficiencies of the recycling industry. In this connection, please advise on: a) the operation and utilisation of the Recycling Fund since its establishment, the number of projects that have been implemented and the details of the application and the participation of the industry for each project; b) the time by which the mid-term review of the Recycling Fund will be completed, and the details of the supporting measures for the recycling industry before the completion of the review; c) whether there will be a funding injection to the Recycling Fund in the financial year 2019-20. If yes, what are the details? If no, what are the reasons?

Asked by: Hon TSE Wai-chuen, Tony (LegCo internal reference no.: 5)

Reply:

The Government launched the \$1 billion Recycling Fund in October 2015 to assist in the upgrading of the operational capabilities and efficiencies of the industry. Two funding schemes have been established under the Fund, namely the Enterprise Support Programme (ESP) and the Industry Support Programme (ISP). The ESP provides project-based matching funds for individual enterprises to upgrade and expand their waste recycling operations in Hong Kong locally, including enhancing collection and separation of recyclables, adopting value-added recycling processes as well as promoting the recycled products manufactured by recyclables through commercialisation and other marketing efforts. A category of Standard Projects has been established under the ESP to facilitate the application for funding from small and medium enterprises (SMEs) by streamlining the procedures and minimising the documentation required. For the ISP, it has been established for non-profit distributing organisations such as professional bodies, trade and industry organisations, research institutes and other industry support organisations to undertake non-profit-making projects to enhance the overall capability and productivity of the recycling industry.

(a) As at 28 February 2019, the Advisory Committee on Recycling Fund (RFAC) has received 525 applications, of which 220 approved, 73 rejected, 156 withdrawn by the applicant organisations of their own accord before vetting and 76 being processed. Excluding the approved projects which have been withdrawn by some applicant organisations, a total of 175 funded projects have been or will soon be commenced, involving a total funding of more than \$130 million, of which 26 are under the ESP, 139 are for Standard Projects and 10 are under the ISP. The funded projects cover the treatment of various types of recyclables, including waste paper, waste plastics, food waste, waste metals, construction waste, used cooking oil and waste wood, etc.

(b) The Environmental Protection Department and the RFAC have been striving to enhance the operation of the Recycling Fund so that it will better address the needs of the industry and support its development. Without compromising the need in safeguarding the use of the Recycling Fund and maintaining effective control on applicants, various facilitation measures have been introduced progressively since the Fund's early stage of operation. These measures include providing partial reimbursement of expenses to successful applicants before the launch of the projects under the ESP and the ISP and establishing a category of Standard Projects under the ESP to minimise the administrative workload of SMEs in making applications. The SMEs undertaking Standard Projects can also submit applications, report achievements and seek reimbursements in accordance with a set of streamlined procedures. Besides, the RFAC has approved the waiving of a condition on opening a designated project bank account for Standard Projects, and can provide reimbursement midway through the project period.

To assist the recycling industry to address the Mainland's progressive tightening requirements on imports of recyclables, the Recycling Fund announced in September 2017 that \$20 million had been earmarked to expand the list of fundable items under Standard Projects to help upgrade the recyclers' ability in processing waste plastics and waste paper. The Recycling Fund also earmarked \$50 million for encouraging recyclers to use compactor trucks for more effective and efficient transportation of waste plastics and waste paper and lower transportation costs. Furthermore, in July 2018, the Recycling Fund increased the amount earmarked for Standard Projects to \$50 million and expanded the funding scope to cover the equipment related to the recycling of waste metals and food waste. In January 2019, the equipment related to the recycling of waste wood was also included in the list of fundable items under Standard Projects. In December 2018, the funding scope of Standard Projects was further expanded to subsidise local school lunch box suppliers to procure equipment so as to implement the adoption of reusable lunch boxes and food waste recycling.

We are now conducting a mid-term review of the operation of the Recycling Fund, which covers a comprehensive review of the overall operation of the Fund as well as collection of views from the recycling industry and various stakeholders regarding the existing arrangements of the Fund. The Fund introduced the first stage of enhancement measures in mid-January 2019, which mainly included:

1. To introduce a new rental subsidy scheme to provide a maximum of 50% rental subsidy to encourage recyclers relocating their existing operations to more appropriate venues. For example, they can relocate from street shops at ground level to industrial

buildings, or from recycling sites located in inappropriate zones to industrial buildings or lands zoned for industrial purpose;

2. To extend the scope of rental expenses subsidy under the current ESP from rental expenses incurred from newly rented premises to rental expenses incurred from the existing premises, with a funding support cap of \$40,000 per month or 20% of the total funding amount (whichever is lower);

3. To increase the maximum upfront payment for ESP projects from 15% to 30% of the total funding amount to improve grantees' cash flow during the early phase of the projects;

4. To merge the existing Standard Project - \$150,000 and Standard Project - \$1M into one new programme named Standard Project - \$1M, with a funding ceiling of \$1,000,000, and to update the prescribed equipment list timely in response to the needs of the industry so as to simplify the application process for recyclers to make the best use of the Fund;

5. To streamline the workflow to expedite payment of the approved funding amount to grantees of Standard Projects; and

6. To further reduce the grantees' administrative workload, including relaxing the covering period requirements for the baseline quantity survey of the projects and the frequency of submitting progress reports.

We will continue with the mid-term review and plan to introduce the next stage of enhancement measures as soon as possible so that the Fund can provide more appropriate support for the industry.

(c) The Recycling Fund has sufficient balance for the time being and does not need a funding injection in the financial year 2019-20.

- End -

CONTROLLING OFFICER'S REPLY

ENB159

(Question Serial No. 0293)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in Programme (1) that the Department will continue to take forward the development of organic resources recovery centres and food waste/sewage sludge co-digestion facilities for the treatment of source-separated food waste, as well as the development of an Integrated Waste Management Facility to achieve bulk reduction of municipal solid waste. In this connection, please advise on the following: What are the Government's management targets in this aspect? To achieve these targets, what additional resources will be allocated and what measures will be implemented in the financial year 2019-20? What are the relevant details?

Asked by: Hon TSE Wai-chuen, Tony (LegCo internal reference no.: 6)

Reply:

In May 2013, the Environment Bureau (ENB) published the *Hong Kong: Blueprint for Sustainable Use of Resources 2013-2022* (the Blueprint), which tackles waste problems from a resource re-circulation perspective. At the same time, the ENB has undertaken multiple and concurrent actions to encourage waste reduction at source, enhance reuse and recovery of resources, and has adopted a multi-pronged approach to promote the practice of "Use Less, Waste Less". Unavoidable waste will be turned into energy by modern technology, while disposal at landfills will be the last resort. Besides, the ENB has also drawn up *A Food Waste & Yard Waste Plan for Hong Kong 2014-2022* (the Food Waste Plan) to set out 4 strategies to tackle food waste, namely reduction at source, reuse and donation, recyclable collection, and turning food waste into energy.

One of the important backbone strategies under the Food Waste Plan is the setting up of a network of Organic Resources Recovery Centres (ORRCs), which will make use of advanced technology to recycle unavoidable food waste into renewable energy, i.e. turning waste into energy, thereby reducing greenhouse gas emissions and mitigating global climate change. Completed and commissioned in July 2018, the ORRC Phase 1 (O • PARK1) in Siu Ho Wan of Lantau can treat 200 tonnes of food waste daily. The Environmental

Protection Department (EPD) is seeking funding approval from the Legislative Council for detailed design and construction works of the ORRC Phase 2 (ORRC2) in Sha Ling of the North District. If the funding is approved and the contract is awarded in the first half of 2019, the ORRC2 is expected to be commissioned in 2022 the earliest, with a daily food waste treatment capacity of 300 tonnes. The EPD is conducting an engineering feasibility study and an Environmental Impact Assessment for the ORRC Phase 3 (ORRC3). The ORRC3 is scheduled for commissioning in 2026 with a daily food waste treatment capacity of 300 tonnes. We will continue to identify sites for developing the remaining phases of ORRC.

We are also working with the Drainage Services Department (DSD) to examine the use of existing and planned sewage treatment works (STW) to take forward the “food waste/sewage sludge anaerobic co-digestion” technology in order to expedite the enhancement of the overall food waste recycling capacity in Hong Kong. The first “food waste/sewage sludge anaerobic co-digestion” trial scheme (the Trial Scheme) will be carried out at the Tai Po STW. The food waste pre-treatment facilities are scheduled for commissioning in the first half of this year with a daily capacity of up to 50 tonnes of food waste. The Government will also extend the Trial Scheme to cover the Sha Tin STW for commissioning in 2022 with a daily food waste treatment capacity of 50 tonnes. We will work in parallel with the DSD to examine the feasibility of upgrading the anaerobic digestion system of the Tai Po STW during its expansion project in future so as to process more pre-treated food waste, as well as extending the application of the technology to other STW where sewage sludge anaerobic digestion facilities are or will be available (such as the STW in Yuen Long and Hung Shui Kiu, etc.).

We anticipate that with the above-mentioned initiatives in place (i.e. development of the ORRC network and the food waste/sewage sludge co-digestion technology), our overall food waste treatment capacity is expected to gradually increase in over ten years’ time (by around mid-2030s) to around 1 800 tonnes of food waste per day, i.e. about half of the total food waste currently generated in Hong Kong. Most of the food waste will be turned into energy during the treatment process, and the energy generated will be supplied to the facilities and the public for use. The remaining digestate will be turned into compost for use in farming or gardening. The amount of residues that need to be disposed of at landfills is less than 10% of the original food waste.

The Blueprint has already indicated that we need to develop the Integrated Waste Management Facilities (IWWMF) with enhanced capacity to turn waste into energy and to deal with municipal solid waste (MSW) that has not been taken out of the waste stream effectively. The Design-Build-Operate contract for the IWWMF Phase 1 was awarded in November 2017. The facility is expected to commence operation in 2024. Upon full commissioning of the facility, it can treat 3 000 tonnes of MSW each day.

In the financial year 2019-20, the Government will allocate an additional \$8 million to take forward the Trial Scheme at the Sha Tin STW.

- End -

CONTROLLING OFFICER'S REPLY

ENB160

(Question Serial No. 0294)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in Programme (1) that the Department will continue to implement the Restored Landfill Revitalisation Funding Scheme to expedite the development of gainful facilities at restored landfills. In this connection, please advise on the following: How much resources will the Administration allocate to revitalise restored landfills in the financial year 2019-20 and what are the relevant details? How many restored landfills are available for development in Hong Kong at present and what are their development plans? What measures will the Government take to expedite the development of restored landfills? How will the restored landfills already developed be monitored?

Asked by: Hon TSE Wai-chuen, Tony (LegCo internal reference no.: 7)

Reply:

There are currently 13 restored landfills in Hong Kong, 6 of which have been developed and opened for public use, such as Jordan Valley Park, Ngau Chi Wan Park and Sai Tso Wan Recreation Ground. The Environmental Protection Department (EPD) also strives to promote the development of restored landfills into various beneficial uses by non-governmental organisations on a self-financing basis. These include the temporary golf driving range at Shuen Wan, the temporary shooting range at Pillar Point Valley, the international BMX park and the cricket centre at Gin Drinkers Bay, and the football training centre at Tseung Kwan O, etc. Over the years, the Environment Bureau and the EPD have been endeavouring to develop restored landfills into gainful uses, and launched the Restored Landfill Revitalisation Funding Scheme (RLRFS) in 2015 to fund non-profit-making organisations (NPOs) or National Sports Associations (NSAs) to develop suitable recreational facilities or other innovative proposals at the remaining 7 restored landfills (i.e. excluding the above 6 sites which have been developed and opened for public use).

To take the RLRFS forward, the EPD has established a Steering Committee (SC) to advise on the operational arrangement of the RLRFS, the assessment of the merits of the applications received and the amount of funding to be granted for the applications. Under Batch 1 of the RLRFS, a selected organisation is preparing to revitalise approximately 2

hectares of flat area in the Tseung Kwan O Stage I Landfill into a camp site-cum-green education ground for providing camping grounds and garden plots for rental, and organising green education, outdoor recreational and adventure training activities, etc. The EPD is reviewing the operational and implementation experience of Batch 1 of the RLRFS, which covers the requirements of basic infrastructure/public utilities at individual restored landfills for possible beneficial uses, the roles of the Government and NPOs/NSAs in constructing and managing the facilities, and the application and assessment procedures, with a view to introducing enhanced measures for Batch 2 of the RLRFS and assisting future applicants in proposing diverse modes of collaboration or operation. The review is expected to be completed within 2019 and Batch 2 of the RLRFS will be launched as soon as possible.

The EPD sets out the requirements for the development and operation of various beneficial uses in restored landfills through land licences issued to the relevant organisations. The EPD officers will also monitor the licensees' compliance with licence conditions from time to time. In addition, the EPD can also request the grantees under the RLRFS to submit audited financial statements so as to further monitor the financial and operational performance of the projects. The SC on the RLRFS will also monitor the progress of the approved projects and advise on the operation, effectiveness and other matters of the RLRFS.

It was recommended in the Public Accounts Committee (PAC) Report No. 70A that the EPD should make additional efforts in implementing the RLRFS, and enhance the monitoring and management of facilities at restored landfills, such as incorporating in the inspection form specific inspection items related to monitoring of compliance with licence conditions, and exploring the feasibility of incorporating quantitative/objective measures (e.g. Key Performance Indicators) in land licences when issuing or renewing licences in future. The EPD agrees to and accepts the views and recommendations of the PAC, and will follow up and implement the recommendations.

The EPD has set up a Restored Landfill Revitalisation Group under the Environmental Infrastructure Division, which is tasked to take forward the RLRFS, including providing secretariat support for the SC on the RLRFS, inviting and processing funding applications, assisting the selected organisations to formulate detailed development and operational plans, to make application for capital grants and take forward the revitalisation projects, as well as monitoring the implementation and operation of the revitalisation projects, etc. The estimated operating expenditure (including salaries and other recurrent expenditure) of the Group in 2019-20 is about \$9.2 million. Besides, the EPD has earmarked \$4.9 million under the Capital Works Reserve Fund in 2019-20 for the pre-construction activities of the revitalisation project at the Tseung Kwan O Stage I Landfill.

- End -

CONTROLLING OFFICER'S REPLY

ENB161

(Question Serial No. 0295)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in Programme (2) that roadside nitrogen dioxide remains a challenge as it stayed at a high level due to excessive emissions from vehicles. In this connection, please advise on the following: a) What is the Government's target for improving roadside air quality? How much additional resources will be allocated and what measures will be taken to improve roadside air quality in the financial year 2019-20? b) What measures did the Government and the Guangdong authorities take in the past 3 years to improve air quality? What were the details, the manpower and expenditure involved, the progress and the effectiveness of these measures? c) What are the targets of the Government and the Guangdong authorities for improving air quality in the financial year 2019-20? How much additional resources will be allocated and what specific measures will be taken to achieve the targets?

Asked by: Hon TSE Wai-chuen, Tony (LegCo internal reference no.: 8)

Reply:

- a) Commercial vehicles, including goods vehicles, buses, light buses and taxis, account for about 20% of the total vehicle fleet in terms of number, but are key emission sources of air pollutants at the roadside, accounting for about 95% of the total vehicular emissions of respirable suspended particulates (RSP) and nitrogen oxides (NO_x) in Hong Kong. Hence, these vehicles have all along been a major target of the Government's measures to improve roadside air quality. With the emission control measures on vehicles in recent years, roadside concentrations of key air pollutants have decreased by about 30% from 2013 to 2018.

Despite these improvements, the annual roadside nitrogen dioxide (NO₂) concentration is still at a level twice its Air Quality Objectives (AQO). Hence, regarding roadside air quality, the Government will continue with its efforts to take forward roadside air

quality improvement measures and to achieve its target of reducing roadside NO₂ concentration. The details of these measures are set out in **Annex 1**.

b) and c) Improving regional air quality has been one of the priority areas of work in Guangdong-Hong Kong Environmental Collaboration. The Environmental Protection Department (EPD) and the Guangdong (GD) Provincial Government have been implementing the emission reduction measures set out in the Pearl River Delta (PRD) Regional Air Quality Management Plan continuously, and have completed the mid-term review on air pollutant emission reduction targets for 2015, as well as finalised the reduction targets for 2020. The details are as follows:

Pollutant	Region ^{Note1}	2015 Emission reduction ^{Note2} target	Actual emission reduction ^{Note2} in 2015 (according to the 2015 Emission Inventory Report)	2020 Emission reduction ^{Note2} target
Sulphur dioxide (SO ₂)	Hong Kong (HK)	-25%	-45%	-55%
	PRD Economic Zone	-16%	-25%	-28%
NO _x	HK	-10%	-14%	-20%
	PRD Economic Zone	-18%	-22%	-25%
RSP	HK	-10%	-20%	-25%
	PRD Economic Zone	-10%	-14%	-17%
Volatile organic compounds (VOC)	HK	-5%	-14%	-15%
	PRD Economic Zone	-10%	-11%	-20%

Note 1: The PRD Economic Zone includes Guangzhou, Shenzhen, Zhuhai, Dongguan, Zhongshan, Foshan, Jiangmen, Huizhou and Zhaoqing

Note 2: Reductions are relative to 2010 emission levels.

The measures that were taken in the past 3 years, existing measures and proposed new measures to improve air quality through Guangdong-Hong Kong Environmental Collaboration are set out in **Annex 2**.

Roadside air quality improvement measures to be implemented by the HKSAR Government in 2019-20

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
Proposed new measures			
1. Tightening the emission standards of first registered motorcycles (MCs), light buses (design weight of more than 3.5 tonnes) and buses (design weight of not more than 9 tonnes)	In view of the current adequate supply of Euro IV compliant MC models and the latest projection of supply of Euro VI compliant light bus and bus models, the Government recommends: (i) tightening the emission standards of first registered MCs to Euro IV, in second half of 2020; and (ii) tightening the emission standards of first registered light buses (design weight of more than 3.5 tonnes) and buses (design weight of not more than 9 tonnes) to Euro VI, On-Board Diagnostics (OBD) Phase C, starting from early 2021.	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	The EPD consulted the Advisory Council on the Environment (ACE) and the Panel on Environmental Affairs (EA Panel) of the Legislative Council (LegCo) on 3 December and 19 December 2018 respectively and gained support from the members. We are preparing for the amendment of the Air Pollution Control (Vehicle Design Standards) (Emission) Regulations (Cap. 311J) to implement the above proposals.

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
<p>2. Trial of retrofitting Euro IV and V double-deck franchised buses with enhanced selective catalytic reduction (SCR) systems</p>	<p>The Government plans to fully subsidise the franchised bus companies to conduct a trial of retrofitting Euro IV and V diesel double-deck buses of the dominant bus models with enhanced SCR systems, so as to establish its technical feasibility and to confirm the emission reduction performance of the enhanced SCR systems from different suppliers under local road conditions and operational conditions. The trial is expected to be completed by 2021.</p>	<p>To retrofit not more than 60 Euro IV and V double-deck franchised buses with enhanced SCR systems, the estimated cost of the trial is about \$38 million.</p> <p>The relevant workload is partly absorbed with the existing resources of the EPD and Transport Department (TD). The EPD will create 2 additional two-year time-limited posts (until end of March 2021; including 1 Environmental Protection Officer and 1 Environmental Protection Inspector) to undertake and follow up on the relevant trial.</p> <p>The TD will also create 2 two-year time-limited posts (until end of March 2021, including 1 Transport Officer II and 1 Motor Vehicle Examiner I) to undertake the relevant work.</p>	<p>A Task Force comprising the EPD, the TD, franchised bus companies and local experts has been set up to draw up technical specifications and detailed arrangements for the trial, and monitor and evaluate the operational performance and emission reduction performance of the buses retrofitted with the enhanced SCR systems.</p> <p>If the trial is successful, the Government will consider fully subsidising the franchised bus companies to retrofit Euro IV and V diesel double-deck buses of qualified models (bus models that have passed the trial) with enhanced SCR systems to reduce their emissions before their retirement.</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
3. Reviewing the scope of the Pilot Green Transport Fund (PGTF)	To further facilitate the transport sectors to try out green innovative transport technologies and the wider use of those green innovative transport technologies that have been proved to be relatively mature and suitable for adoption locally, the Government will review the PGTF.	The relevant workload is partly absorbed with the existing resources of the EPD. Moreover, 2 additional five-year time-limited posts (until end of March 2024; including 1 Environmental Protection Officer and 1 Senior Environmental Protection Inspector) will be created to undertake and follow up on the relevant recommendations.	The EPD is conducting the review and aims to complete it within 2019. The EPD will consult the trades, stakeholders, Pilot Green Transport Fund Steering Committee, ACE and the EA Panel of the LegCo on the review outcome and the relevant recommendations.

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
<p>4. Phasing out Euro IV diesel commercial vehicles (DCVs)</p>	<p>The Government has proposed to launch an incentive-cum-regulatory programme to phase out Euro IV DCVs by the end of 2023.</p> <p>To continuously improve roadside air quality, the EPD plans, by making reference to the existing scheme of phasing out pre-Euro IV DCVs, to adopt an incentive-cum-regulatory approach to progressively phase out about 40 000 Euro IV DCVs by the end of 2023 on a mandatory basis, and grant an ex-gratia payment to owners who scrap and de-register their Euro IV DCVs by the specified deadlines. After the specified deadlines, the licences of relevant DCVs will not be renewed. We are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course. We are striving to report the detailed arrangements to the Advisory Council on the Environment and the Panel on Environmental Affairs of the Legislative Council in late 2019/early 2020 after working out the implementation details and consulting the trade.</p>	<p>If positive feedback is received in the consultation with the transport trade, we will seek funding from the Finance Committee of the Legco in a timely manner for the ex-gratia payment scheme and seek manpower resources if necessary.</p>	<p>Having regard to the existing scheme of phasing out pre-Euro IV DCVs, we are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course.</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
Existing measures (in order of time of implementation)			
5. Encouraging the use of environment-friendly (EF) commercial vehicles	<p>Since April 2008, the Government has launched the Tax Incentives Scheme for EF Commercial Vehicles to encourage vehicle owners to choose EF commercial vehicles with exhaust emissions that out-perform the prevailing statutory emission standards.</p> <p>The qualifying standards for EF commercial vehicles are reviewed and updated annually in the light of vehicle technological advancement such that the tax incentive is available only to vehicles of outstanding environmental performance.</p>	This is part of the EPD's routine work on improving the air quality and is absorbed with the existing resources. There is no separate breakdown on the expenditure involved.	From implementation of the Tax Incentives Scheme for EF Commercial Vehicles to the end of February 2019, the number of newly registered EF commercial vehicles was about 59 000 and the amount of first registration tax concession was about \$1.6 billion.

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
6. Pilot Green Transport Fund (PGTF)	The PGTF was set up in March 2011 for application by the public transport sectors, goods vehicle operators and charitable/non-profit making organisations to try out green innovative transport technologies.	<p>Funding of \$300 million was approved for setting up the Fund. As at the end of February 2019, the total amount of subsidy approved was about \$139 million.</p> <p>The relevant workload has been partly absorbed with the existing resources of the EPD. Moreover, 4 additional five-year time-limited posts (until end of March 2021; including 1 Senior Environmental Protection Officer, 1 Environmental Protection Officer, 1 Environmental Protection Inspector and 1 Assistant Clerical Officer) have been created to undertake the relevant work.</p>	<p>The PGTF can promote a wider use of green innovative transport technologies which help improve roadside air quality and reduce greenhouse gas emission.</p> <p>As at the end of February 2019, the PGTF has approved 139 trials, involving 105 electric commercial vehicles (including 77 light goods vehicles, 21 single-deck buses, 3 light buses, 3 taxis and 1 medium goods vehicle (tractor)) and 89 hybrid commercial vehicles (including 48 light goods vehicles, 28 medium goods vehicles, 11 light buses and 2 single-deck buses), 1 set of solar air-conditioning system for buses, 4 sets of electric inverter air-conditioning system for buses, 3 diesel-electric propulsion systems for ferries and 1 seawater scrubber for ferries.</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
7. Trial of electric buses	Funding was approved to fully subsidise the franchised bus companies to procure 36 single-deck electric buses (including 8 supercapacitor buses and 28 battery-electric buses) for conducting a two-year trial on different routes.	Funding of \$180 million was approved in 2012 for conducting the trial. The relevant workload has been partly absorbed with the existing resources of the EPD and the TD. The EPD and the TD have created 3 two-year time-limited posts (until end of March 2014; including 1 Environmental Protection Officer, 1 Senior Environmental Protection Inspector and 1 Motor Vehicle Examiner I) to undertake the relevant work. Afterwards, the TD has further created a four-year time-limited Transport Officer I post (until end of 2020) to cope with the relevant work of the trial.	At present, 26 battery-electric buses and 6 supercapacitor buses have commenced operation. The remaining electric buses are expected to commence operation progressively in 2019.

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
<p>8. Phasing out pre-Euro IV diesel commercial vehicles (DCVs)</p>	<p>The EPD launched an incentive-cum-regulatory scheme in March 2014 with the aim to progressively phasing out some 82 000 pre-Euro IV DCVs by end of 2019. Moreover, the EPD has also set a limit on the service life of DCVs newly registered on or after 1 February 2014 at 15 years.</p>	<p>Funding of about \$11.4 billion was approved for implementation of the ex-gratia payment scheme.</p> <p>The workload for implementing the ex-gratia payment scheme has been partly absorbed with the existing resources of the EPD and the TD. Moreover, the EPD has created 3 time-limited posts (from 2013-14 to 2019-20; including 1 Senior Environmental Protection Officer, 1 Environmental Protection Officer and 1 Environmental Protection Inspector) to implement the ex-gratia payment scheme. In addition, the TD has created in phases a maximum of 25 time-limited posts (reduced to 18 in 2019-20; including 1 Senior Executive Officer, 1 Executive Officer I, 1 Executive Officer II, 2 Clerical Officers, 8 Assistant Clerical Officers, 1 Motor Vehicle Examiner I, 1 Motor Vehicle Examiners II and 3 Vehicle Testers) in the above years according to the progress of the scheme to handle the applications for the ex-gratia payment scheme.</p>	<p>As at the end of February 2019, about 67 900 pre-Euro IV DCVs (i.e. about 83% of the eligible vehicles) have been retired under the ex-gratia payment scheme, involving an ex-gratia payment of about \$9.1 billion.</p> <p>The phasing out of pre-Euro IV DCVs contributed to the substantial reduction of RSP and NO_x from vehicles.</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
<p>9. Strengthening the control of emissions from petrol and liquefied petroleum gas (LPG) vehicles</p>	<p>The EPD has been using roadside remote sensing equipment to identify petrol and LPG vehicles emitting excessively since 1 September 2014. For a vehicle found emitting excessively, the EPD will issue an Emission Testing Notice to its owner. The owner is required to rectify the excessive emission problem and send the vehicle to a Designated Vehicle Emission Testing Centre for an emission test with the aid of a chassis dynamometer within 12 working days so as to confirm the rectification of the excessive emission problem. If the owner fails to send the vehicle to the testing centre, or the vehicle fails to pass the emission test, the licence of the vehicle concerned will be cancelled by the TD.</p>	<p>The relevant workload has been partly absorbed with the existing resources of the EPD. In addition, the EPD will create 1 Environmental Protection Inspector post in 2019-20 to enhance its work on the control of emissions.</p>	<p>As at the end of February 2019, the EPD has monitored some 3.08 million vehicle counts and issued about 17 000 emission testing notices requiring the owners to repair and to rectify the excessive emissions of their vehicles. During the above period, the licences of a total of 211 vehicles were cancelled for failing the emission test. Another 899 vehicles were scrapped by their owners voluntarily. The percentage of petrol vehicles emitting excessively has reduced from about 10% to 5%, while the percentage of LPG vehicles emitting excessively has reduced from about 80% to 20% from 2014 to 2018. The EPD has strengthened the use of roadside remote sensing equipment progressively since 2018, with the maximum number of monitoring points operated each day increased from 3 previously to 5 currently.</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
<p>10. Setting up franchised bus low emission zones (FBLEZs)</p>	<p>To improve roadside air quality and protect public health, the Government set up FBLEZs at the busy road sections in Causeway Bay, Central and Mong Kok at the end of 2015, allowing only low emission franchised buses (including buses of Euro IV or above, or Euro II and III buses retrofitted with SCR devices and diesel particulate filters) to run in these zones.</p>	<p>This is part of the EPD's routine work on improving air quality. There is no separate breakdown on the expenditure involved.</p>	<p>3 FBLEZs were set up at the end of 2015. Starting from April 2016, all franchised bus companies have confirmed that they have sufficient low emission buses to run in FBLEZs. According to the reports submitted by the franchised bus companies, as of December 2018, the overall compliance rate was about 99.7%. In case of traffic congestion, vehicle breakdowns and traffic accidents, etc., the franchised bus companies may need to deploy non-low emission buses to run in the FBLEZs occasionally in order to maintain normal bus services. However, these exceptional cases will be reduced as the franchised bus companies are acquiring more new buses progressively.</p>
<p>11. Implementing Euro VI emission standards for newly registered vehicles</p>	<p>The Government has tightened in phases by vehicle type the emission standards for newly registered vehicles to Euro VI starting from 1 July 2017, and has tightened the emission standards for newly registered diesel private cars to California LEV III starting from 1 October 2017.</p>	<p>This is part of the EPD's routine work on improving air quality. There is no separate breakdown on the expenditure involved.</p>	<p>Compared with their Euro V counterparts, Euro VI heavy duty diesel vehicles emit about 80% less NOx and 50% less RSP while Euro VI light duty diesel vehicles emit about 55% less NOx.</p>

The measures to improve air quality through Guangdong-Hong Kong Environmental Collaboration in 2016-2020

Policies/Measures	Details	Expenditure and Manpower Involved	Progress and Effectiveness
Measures that were completed in the past 3 years			
1. Mid-term review study on the 2015 and 2020 air pollutant emission reduction targets	The progress on emission reduction of major air pollutants in the Pearl River Delta (PRD) region was reviewed in order to provide a robust scientific basis for concluding the emission reduction results of the two places for 2015 and finalising the emission reduction targets for 2020.	The study was undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	The Hong Kong (HK) and Guangdong (GD) governments set the 2015 emission reduction targets and the 2020 emission reduction ranges for the PRD Region in November 2012, and rolled out various emission reduction measures under the Pearl River Delta Regional Air Quality Management Plan (RAQMP). The two sides commenced the joint mid-term review study in February 2015 and released the results of the study in late 2017, which concluded the achievements of emission reduction in 2015 and finalised the reduction targets for 2020.
2. Guangdong-Hong Kong-Macao Joint Regional PM _{2.5} (fine suspended particulates) Study	The Study aims to understand the formation mechanisms and control of PM _{2.5} pollution in the PRD Region, so as to provide a scientific basis for the formulation of further air quality improvement control strategies to improve regional air pollution problems.	The HK side commissioned a consultant to conduct field sampling, chemical analysis and air quality modelling, etc. The total expenditure was about \$9 million. There is no separate breakdown on the manpower resources and expenditure for the Study.	The Study began in late 2014. GD, HK and Macao completed concurrent field sampling, chemical analysis, air quality modelling and integrated analysis, etc. The Study was completed in 2018.

Policies/Measures	Details	Expenditure and Manpower Involved	Progress and Effectiveness
Existing measures (in order of time of implementation)			
3. Pearl River Delta (PRD) Regional Air Quality Management Plan (RAQMP)	HK and GD have implemented a host of emission reduction measures targeting at key emission sources, including power plants, vehicles and industrial facilities, etc., as well as regional air quality monitoring.	The RAQMP is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	<p>The RAQMP has been an ongoing collaboration initiative drawn up since December 2003. The annual average levels of SO₂, NO₂ and RSP measured by the PRD Regional Air Quality Monitoring Network (the Network) in 2017 recorded a decrease by 77%, 26% and 34% respectively as compared with 2006. This indicates an improvement in regional air quality brought about by the emission reduction measures implemented by GD and HK in recent years.</p> <p>The Network was enhanced by GD, HK and Macao in September 2014 to provide real-time air quality information of the PRD Region.</p>
4. Cleaner Production Partnership Programme	Launched in April 2008, the Cleaner Production Partnership Programme (the Programme) encourages and facilitates Hong Kong-owned factories in GD and HK to adopt cleaner production technologies and practices through funding support and technology promotion activities, thereby contributing to improving the regional air quality. The Programme has been extended until 31 March 2020.	<p>The Government's expenditure for implementing the Programme from 2008-09 to 2018-19 was around \$280 million.</p> <p>This is part of the EPD's routine work. There is no separate breakdown on the manpower and expenditure involved in this Programme.</p>	As at the end of February 2019, over 3 100 funding projects were approved and more than 540 awareness and technology promotion activities were organised under the Programme, attracting over 48 000 participants.

Policies/Measures	Details	Expenditure and Manpower Involved	Progress and Effectiveness
5. Routine monitoring of VOC in the PRD Regional Air Quality Monitoring Network	GD and HK have adopted a progressive approach to include routine monitoring of VOC in the PRD Regional Air Quality Monitoring Network in three phases from 2017 to 2020.	The costs involved for outsourcing the monitoring work at the monitoring station in HK in the past 3 years were about \$3.2 million.	HK and GD have completed the work in Phase 1 in 2017, including considering the coverage and locations of stations for routine VOC monitoring, selecting the parameters to be monitored and monitoring methods, and compiling the standard operating procedures and quality assurance/quality control protocol. Both sides are now undertaking the work in Phase 2, i.e. each selecting one of its stations in the regional network to carry out a pilot of online VOC monitoring and preliminary data analysis in 2018-19 based on the coverage of monitoring stations and the quality assurance/quality control protocol confirmed in Phase 1. For Phase 3 in 2020, both sides will comprehensively review the experiences gained in Phase 2, including the operation of the monitoring equipment, expenditure, data quality and the preliminary analysis results, etc., and by making reference to relevant national standards and guidelines, and will fine tune the monitoring protocol and consider increasing the number of VOC routine monitoring stations.

Policies/Measures	Details	Expenditure and Manpower Involved	Progress and Effectiveness
6. Regional air quality forecasting	Targeting at the heavily polluted weather in the PRD region, GD and HK will conduct air quality forecasting meetings at the technical level to jointly forecast the development of heavily polluted weather in the region, analyse and identify the causes so as to formulate and adopt appropriate preventive measures in advance.	The study is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	HK and GD are currently increasing technical exchanges and trainings on air pollution forecasting to enhance forecasting capability.
Proposed new measures			
7. Collaboration on post-2020 regional air pollutant emission reduction	To further improve regional air quality, the HKSAR Government and GD Provincial Government are working together to formulate a regional air pollutant emission reduction plan beyond 2020.	The study is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	HK and GD have established a joint science team and launched a study on post-2020 regional air pollutant emission reduction targets and concentration levels for Hong Kong and Guangdong, with a view to formulating an emission reduction plan beyond 2020.
8. Regional three-dimensional (3-D) air pollution monitoring network	HK and GD each has plan to build its own 3-D air pollution monitoring network that uses light detection and ranging (LiDAR) technology to monitor the formation and transportation of pollutants at heights. The two sides are exchanging preliminary views on whether a regional monitoring network can be established on this foundation.	The EPD is applying for an additional provision of \$55 million to purchase the LiDAR system.	The EPD is applying for an additional provision.

- End -

CONTROLLING OFFICER'S REPLY

ENB162

(Question Serial No. 1035)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the enhancement of the charging network for electric vehicles (EVs), would the Government advise this Committee on the estimated number of quick, medium and standard charging facilities for EVs to be set up in 2019-20 and the related expenditure?

Asked by: Hon YICK Chi-ming, Frankie (LegCo internal reference no.: 13)

Reply:

The Government will allocate \$120 million to extend the public electric vehicle (EV) charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the Transport Department (TD), the Government Property Agency (GPA) and the Leisure and Cultural Services Department which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. We will also identify suitable on-street parking spaces to install EV chargers on a trial basis and explore suitable locations to set up pilot quick charging stations for EVs.

In 2019-20, about 170 medium chargers are expected to be installed at the car parks managed by the TD and the GPA. The estimated expenditure for 2019-20 is \$17 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB163

(Question Serial No. 1042)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the pilot scheme on green ferry, would the Government advise this Committee on the content, manpower and work arrangements, estimated expenditure and effectiveness of the scheme?

Asked by: Hon YICK Chi-ming, Frankie (LegCo internal reference no.: 20)

Reply:

As the Environmental Protection Department (EPD) is now discussing the specific contents and implementation details of the pilot scheme on green ferry with relevant departments, the specific implementation plan and estimated expenditure are not available for the time being. We will consult the trade and the relevant committees of the Legislative Council after working out the implementation plan of the pilot scheme.

We are using the existing manpower and resources to handle the preparatory work of the pilot scheme, and will apply for the required resources, if necessary, after the implementation plan is confirmed.

- End -

CONTROLLING OFFICER'S REPLY

ENB164

(Question Serial No. 1044)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the producer responsibility scheme (PRS) on plastic beverage containers, please advise this Committee on:

- (a) the work progress or timetable, and the staffing establishment and expenditure of the pilot scheme on the reverse vending machine (the Pilot Scheme);
- (b) whether there will be other measures to take forward the above PRS apart from the Pilot Scheme. If yes, what are the specific details and estimated expenditure?

Asked by: Hon YICK Chi-ming, Frankie (LegCo internal reference no.: 22)

Reply:

The Government commissioned a feasibility study on the introduction of a producer responsibility scheme (PRS) on plastic product containers, targeting those carrying beverages or personal care products, in October 2017. Taking into account the recommendations of the consultant, the Government decided to accord priority to plastic beverage containers, which account for about 60% of overall waste plastic containers disposed of in Hong Kong, and proceed first with the introduction of a PRS for this type of containers. We plan to consult the public on the proposed way forward in 2019. The consultant will continue to conduct the feasibility study on the PRS on plastic personal care product containers and submit a report to the Government.

In parallel, the Environmental Protection Department (EPD) is preparing for the implementation of a pilot scheme on the application of reverse vending machine (RVM), and will assess its performance and effectiveness in collecting waste plastic beverage containers, as well as the operational arrangements for storing and transporting the plastic bottles collected to local recyclers for further processing. Our initial plan is to place a total of 50 to 60 RVMs at different locations in the second half of 2019, primarily at public places or government facilities with higher pedestrian flow. Through the pilot scheme, the EPD will also assess the appropriate incentive and the level that should be provided having regard to the recommendations put forward by the consultant. The EPD is now undertaking the preparatory work to work out the specific details of the pilot scheme.

The estimated expenditure for the consultancy study in the financial year 2019-20 is about \$2.2 million. The estimated expenditure for the pilot scheme on the application of RVM in the financial year 2019-20 is about \$4 million, which will mainly be used to engage a contractor to carry out the scheme. As these 2 work items are part of the work of the Waste Management Policy Division of the EPD, there is no separate breakdown of the manpower and expenditure involved in such work.

- End -

CONTROLLING OFFICER'S REPLY

ENB165

(Question Serial No. 1052)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the Pilot Green Transport Fund, would the Government inform this Committee of:

- (a) the number of applications received and approved for the Fund in 2018;
- (b) the total amount of funding granted;
- (c) the latest progress and effectiveness?

Asked by: Hon YICK Chi-ming, Frankie (LegCo internal reference no.: 30)

Reply:

(a) & (b)

The Pilot Green Transport Fund (the Fund) received 44 effective applications in 2018, including 19 of electric light goods vehicles (e-LGVs), 1 of electric medium goods vehicle (tractor), 6 of hybrid light goods vehicles, 3 of hybrid medium goods vehicles, 6 of hybrid single-deck buses, 7 of hybrid light buses, and 2 of retrofitting in-use ferries with diesel-electric propulsion (DEP) systems to replace their old systems. One hybrid light bus applicant decided to withdraw its application due to its own business considerations before the deliberation of the Pilot Green Transport Fund Steering Committee^{Note 1} (the Committee). After deliberation, the Committee approved 31 applications, including 19 of e-LGVs, 1 of electric medium goods vehicle (tractor), 6 of hybrid light goods vehicles, 3 of hybrid medium goods vehicles, and 2 of retrofitting in-use ferries with DEP systems to replace their old systems. One e-LGV applicant decided to withdraw his application due to his own business considerations after obtaining approval. Hence, the actual number of applications approved in 2018 is 30, involving a subsidy amount of \$17.4 million.

^{Note 1} The Pilot Green Transport Fund Steering Committee is chaired by a non-government official with members comprising representatives elected by the transport sectors, experts and academics in green innovative transport technologies, as well as representatives of relevant government departments.

As for the 6 hybrid single-deck bus applications and the 6 hybrid light bus applications not approved, taking into account substantive competition in bidding was not existing as only 1 model for hybrid single-deck bus and 1 model for hybrid light bus are currently available in Hong Kong, both of the 2 manufacturers failed to provide information on the actual operational performance of their models in the local or overseas environment for reference, and 6 trials involving a total of 7 vehicles of these 2 types had been approved under the Fund early on, the Committee considered that the number of trials should be restricted at the present stage to avoid placing too much emphasis on certain models whose performance have not been verified under actual operational environment. The Committee will consider whether further trials of these 2 models of vehicles should be supported depending on future trial results.

(c) As at the end of February 2019, the Fund approved 139 trials^{Note 2} with a total subsidy of about \$139 million. They included 74 trials of electric vehicles (EVs) and 57 trials of hybrid vehicles, involving 105 EVs (3 taxis, 3 light buses, 21 single-deck buses, 77 light goods vehicles and 1 medium goods vehicle (tractor)) and 89 hybrid vehicles (48 light goods vehicles, 28 medium goods vehicles, 11 light buses and 2 single-deck buses). Moreover, the Fund has subsidised the trials of a solar air-conditioning system for a bus, 4 electric inverter air-conditioning systems for buses, and the retrofitting of 3 in-use ferries with DEP systems to replace their old systems and 1 in-use ferry with a seawater scrubber. The current trial results of various types of technologies are as follows:

EVs

According to the current trial results, high production cost, limited service life, long charging time and/or low energy density of the batteries of electric commercial vehicles (e-CVs) on the local market are the key constraints for e-CVs to become popular. The hilly terrain in Hong Kong and the need to provide air-conditioning during summer driving also reduce the driving range of e-CV batteries. Therefore, most of the e-CVs on trial are yet to be able to cope with the requirements of the local transport sectors in respect of driving range and charging time. All the 3 electric taxis that were once trialed under the Fund have been re-registered as private cars after completion of the trials because taxis generally run almost a whole day and under normal operation cannot spare 4 hours a day for charging. Electric light buses and single-deck buses also have experienced similar problems. The electric light buses and single-deck buses trialed under the Fund, after a full charge taking 4 hours, had a driving range lower than the respective daily mileages of a typical public light bus and a typical single-deck bus.

The trial results also showed that e-LGVs are more likely to prevail than other e-CVs in Hong Kong and are suitable for operators who require relatively lower daily mileage and payload because batteries of these vehicles can be topped up outside operation hours. We have organised experience sharing workshops for the transport sectors suitable for adopting this vehicle type to promote the use of e-LGVs.

^{Note 2} As mentioned in (a) and (b), as an applicant who was approved to trial e-LGV withdrew his application due to his own business reasons, the number of applications approved was 1 short of the 140 reported in the discussion paper (LC Paper No. CB(1)487/18-19(03)) of the Panel on Environmental Affairs of the Legislative Council dated 28 January 2019.

For those e-CVs trialed under the Fund, they could save 31% to 91% of their energy cost on an individual vehicle basis as compared with their conventional counterparts.

Hybrid vehicles

Hybrid vehicles can operate without charging up their batteries by an external source, so their operation is similar to that of conventional vehicles. The transport sectors have thus less doubt about trialing hybrid commercial vehicles under the Fund. However, the hybrid commercial vehicle models on the local market are limited, with only 2 hybrid light goods vehicle models, 2 hybrid medium goods vehicle models, 1 hybrid light bus model and 1 hybrid single-deck bus model, all of which have already been trialed under the Fund.

Higher fuel economy is the major merit of hybrid vehicles over the conventional vehicles, thereby reducing operating cost and air pollutant emissions. However, the fuel economy of a hybrid vehicle depends on the operation routes. A route requiring frequent start-stop will harness better the hybrid drive-train. If a route is dominated by highway driving, a hybrid vehicle can hardly outperform its conventional counterpart in fuel economy. The trial results showed that the hybrid goods vehicles incurred fuel cost saving ranging from 4% to 32% as compared with their conventional counterparts whilst the corresponding figure for the hybrid light buses was not more than 4%. The latter had a poorer fuel economy performance which might be caused by inadequate cooling for their batteries. A new model has been introduced by the manufacturer of the hybrid light buses to replace its old model and the new model is being trialed under the Fund.

Ferries

Trials of 1 DEP system for ferry (retrofitted ferry) and 1 seawater scrubber installed on the same ferry were completed under the Fund.

Results of the trial showed that, compared with the diesel system before retrofitting of the ferry, the DEP system can save about 2.4% of fuel, and the emissions of nitrogen oxides and hydrocarbons (HC) as well as the smoke opacity could be reduced by about 69%, 80% and 68% respectively.

As for the seawater scrubber, its operation increased the total fuel consumption of the ferry by about 2.4%. When adopting the DEP system, the seawater scrubber could further reduce HC emission and smoke opacity by 5% respectively. As for the emission of sulphur dioxide (SO₂), the trial result showed that since the Government's tightening of statutory upper limit for sulphur content in fuel from 0.5% to 0.05% in 2014, SO₂ emission of the ferry has been reduced by 83%, and the seawater scrubber could only further reduce it by 4%. In conclusion, compared with the effectiveness of using the DEP system and tightening of statutory sulphur content in fuel, the emission reduction effect of the seawater scrubber became insignificant, and its operation would also increase the total fuel consumption of the ferry.

Other technologies

The trial of 1 solar air-conditioning system for a bus was also completed under the Fund, with the result indicating about 10% saving of fuel cost. In addition, the trial result of 1 electric inverter air-conditioning system for a bus indicated about 17% saving of fuel cost.

The Environmental Protection Department (EPD) will continue to keep in view the development of various green innovative transport technologies and encourage the transport sectors to make use of the Fund to try out other green innovative transport technologies and other suppliers to introduce more products to the local market. Moreover, the EPD is reviewing the scope of the Fund to further facilitate wider use of green innovative transport technologies by the transport sectors, and will consult the trades, stakeholders and the Panel on Environmental Affairs of the Legislative Council after drawing up details of the review contents and the relevant proposals with the aim of completing the review in 2019.

- End -

CONTROLLING OFFICER'S REPLY

ENB166

(Question Serial No. 1059)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Provision for 2019-20 shows a substantial increase of 41.3% over the revised estimate for 2018-19. One of the reasons is that there will be an increase of 21 posts. What are the details of the posts concerned, including the post titles, ranks, salaries and duties?

Asked by: Hon YICK Chi-ming, Frankie (LegCo internal reference no.: 37)

Reply:

There will be a net increase of 21 posts in the Environmental Protection Department (EPD) under "Programme (2) Air" in 2019-20 and the estimated notional annual salary cost at mid-point required is about \$14 million. These posts are mainly for implementing various air quality improvement measures, including control of vehicular emissions, promotion of electric vehicles, enhancement of the air quality monitoring network, etc. The details are as follows:

Post	Pay Scale	Net Increase of posts
Environmental Protection Officer/ Assistant Environmental Protection Officer	Master Pay Scale Point 27 - 44 (Environmental Protection Officer)	+8
	Master Pay Scale Point 16 - 21 (Assistant Environmental Protection Officer)	
Senior Environmental Protection Inspector	Master Pay Scale Point 22 - 28	+1
Environmental Protection Inspector	Master Pay Scale Point 8 - 21	+4
Senior Executive Officer	Master Pay Scale Point 34 - 44	+1
Executive Officer I	Master Pay Scale Point 28 - 33	+1
Electrical and Mechanical Engineer/	Master Pay Scale Point 32 - 44 (Electrical and Mechanical Engineer)	+4

Post	Pay Scale	Net Increase of posts
Assistant Electrical and Mechanical Engineer	Master Pay Scale Point 18 - 27 (Assistant Electrical and Mechanical Engineer)	
Electrical Inspector	Master Pay Scale Point 24 - 33	+1
Motor Vehicle Examiner II	Master Pay Scale Point 24 - 33	+1
Total		+21

- End -

CONTROLLING OFFICER'S REPLY

ENB167

(Question Serial No. 1060)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is stated in the Chief Executive's 2018 Policy Address that the Government plans to progressively phase out about 40 000 Euro IV diesel commercial vehicles (DCVs) by the end of 2023 to further improve roadside air quality. During 2019-20, the Environmental Protection Department will prepare to launch the relevant scheme. What are the details of the preparatory work and timetable for launching the relevant scheme, and the resources involved? Under the scheme launched previously to phase out pre-Euro IV DCVs, ex-gratia payments granted for scrapping the vehicles are required to be used for procuring new vehicles. However, the delinking arrangement does not apply to some public vehicles with Passenger Service Licences. In this connection, will the Department consider making suitable arrangements with the Transport Department when preparing the scheme to phase out Euro IV DCVs? If yes, what are the details; if no, what are the reasons?

Asked by: Hon YICK Chi-ming, Frankie (LegCo internal reference no.: 38)

Reply:

To continuously improve roadside air quality, the Environmental Protection Department (EPD) plans, by making reference to the existing scheme of phasing out pre-Euro IV diesel commercial vehicles (DCVs), to adopt an incentive-cum-regulatory approach to progressively phase out about 40 000 Euro IV DCVs by the end of 2023 on a mandatory basis, and grant an ex-gratia payment to owners who scrap and de-register their Euro IV DCVs by the specified deadlines. After the specified deadlines, the licences of relevant DCVs will not be renewed. We are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course. We are striving to report the detailed arrangements to the Advisory Council on the Environment and the Panel on Environmental Affairs of the Legislative Council in late 2019/early 2020 after working out the implementation details and consulting the trade. The relevant preparatory work is part of the EPD's routine work for improving the air quality and is absorbed by existing resources.

The current scheme of phasing out pre-Euro IV DCVs does not require applicants to purchase replacement vehicles. As for non-franchised buses and public light buses with Passenger Service Licences, the Transport Department (TD) has all along been requiring vehicle owners to apply to the TD when scrapping and replacing their vehicles. This requirement has nothing to do with the scheme of phasing out pre-Euro IV DCVs.

As far as public light buses are concerned, at present, registered owners intending to replace their public light buses are required to submit a prior application to the TD. Upon obtaining written approval from the TD, they may proceed to arrange inspection for the new vehicles and scrapping of the old ones. Thereafter, vehicle owners should present the written approval and all the documents mentioned therein to the TD to complete the de-registration of the old vehicles and registration of the new ones (which have passed the inspection) on the same day. According to the Public Light Buses (Limitation On Number) Notice (Cap. 374K), the total number of vehicles which may be registered as public light buses shall be 4 350. Therefore, the prevailing formalities of completing the de-registration of the old vehicle and registration of the new one on the same day will not change because of any ex-gratia payment scheme. As for non-franchised buses, the TD is reviewing the relevant arrangements for scrapping old vehicles and registering and licensing new vehicles, and will consult the trade in due course.

- End -

CONTROLLING OFFICER'S REPLY**ENB168****(Question Serial No. 1527)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

It is mentioned in the Budget Speech that the Government will allocate \$120 million to extend the public electric vehicle (EV) charging networks at government car parks. Would the Administration advise this Committee on the following:

1. Please list in tabular form the details and estimated expenditure for the Government's provision of additional charging facilities in the past 3 years.

	No. of additional charging facilities provided	Expenditure
2018-19		
2017-18		
2016-17		

2. Please provide details of the public chargers to be provided by the Government in the coming 3 years.

Year	No. of additional charging facilities to be provided	Estimated expenditure

Asked by: Hon YIU Si-wing (LegCo internal reference no.: 28)

Reply:

1. On the development of public charging networks as supplementary facilities, the Government not only takes the lead in providing and enhancing its public charging facilities in government car parks, but also supports private establishments to set up and enhance non-governmental public charging networks. Regarding the government public charging networks, the Government took the lead in 2012 to install 500 public chargers at government public car parks managed by the Transport Department (TD) and government car parks managed by the Government Property Agency (GPA) which are open for public use. To improve the charging efficiency, the Environmental Protection Department (EPD)

has progressively upgraded standard chargers to medium chargers in the past few years (as compared with standard chargers, medium chargers can reduce the charging time by up to 60%). As at end of 2018, EPD has installed 519 chargers, among which 364 are medium chargers, at 425 parking spaces (representing 7% of the relevant parking spaces) at those government car parks managed by the TD and the GPA which are open for public use. The details of and expenditure on enhancing public charging facilities at the above car parks in the past 3 years are as follows:

Year	No. of public electric vehicle (EV) charging facilities enhanced	Expenditure (\$ million)
2016-17	Upgrading 174 standard chargers to medium chargers and installation of 5 medium charging posts at outdoor car parks	2.94
2017-18	Upgrading 96 standard chargers to medium chargers	1.32
2018-19	**	**

** The EPD completed the work for upgrading the standard chargers provided at the car parks of the TD and the GPA which are open for public use to medium chargers in February 2018. Apart from 61 standard chargers located at the TD car parks which will be demolished and 94 chargers which have both standard and medium charging functions, standard chargers at the car parks of the TD and the GPA that are open for public use have all been upgraded to medium chargers.

2. The Government will allocate \$120 million to extend the public EV charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the TD, the GPA and the Leisure and Cultural Services Department which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. The anticipated number of installations and estimated expenditure are as follows:

Year	No. of proposed additional medium public EV charging facilities	Estimated expenditure (\$ million)
2019-20	About 170 medium chargers	17
2020-21	About 600 medium chargers	60
2021-22	About 430 medium chargers	43

Remarks:

The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

- End -

CONTROLLING OFFICER'S REPLY

ENB169

(Question Serial No. 2031)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is stated in paragraph 165 of the Budget Speech that the Government will continue to promote wider use of electric vehicles (EVs) and explore ways to encourage the installation of EV charging facilities at car parks in existing buildings. Would the Administration advise on the following:

- (1) What are the parties, manpower and resources expected to be involved in the new plan of exploring the installation of additional EV charging facilities?
- (2) Apart from relaxing the eligibility criteria of the "One-for-One Replacement" Scheme for electric private cars, will the Government consider introducing more measures to strengthen its efforts in promoting the development of EVs?
- (3) As the number of EVs is increasing gradually at present, the recycling and disposal of EV batteries will become more and more important. What are the details of the Administration's current work for recycling waste batteries?

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 8)

Reply:

(1) The Government will allocate \$120 million to extend the public electric vehicle (EV) charging networks at government car parks in the coming 3 years, including installation of additional medium chargers at the car parks managed by the Transport Department, the Government Property Agency and the Leisure and Cultural Services Department which are fully or partly open to the public. Over 1 000 additional public chargers are expected to be in place by 2022, bringing the total number of chargers to about 1 700. The anticipated number of facilities and estimated expenditure are as follows:

Year	No. of proposed additional medium public EV charging facilities	Estimated expenditure (\$m)
2019-20	About 170 medium chargers	17
2020-21	About 600 medium chargers	60
2021-22	About 430 medium chargers	43

Remarks: The number of EV charging facilities listed in the table is a preliminary estimate and the actual number will be affected by factors such as available electricity at venues, availability of venues and other restrictions.

We will also explore suitable locations to set up pilot quick charging stations for EVs. In parallel, the Government will also study the setting up of a smart system for EV charging and explore feasible measures to promote the provision of EV charging-enabling infrastructure or chargers in existing private buildings. The Environmental Protection Department (EPD) will create the following 7 posts in 2019-20 to take up the relevant work:

Post	Pay Scale	Net Increase of Posts
Environmental Protection Officer/ Assistant Environmental Protection Officer	Master Pay Scale Point 27 - 44 (Environmental Protection Officer) Master Pay Scale Point 16 - 21 (Assistant Environmental Protection Officer)	2 (for 3 years)
Electrical and Mechanical Engineer/ Assistant Electrical and Mechanical Engineer	Master Pay Scale Point 32 - 44 (Electrical and Mechanical Engineer) Master Pay Scale Point 18 - 27 (Assistant Electrical and Mechanical Engineer)	3 (for 3 years) 1 (for 5 years)
Electrical Inspector	Master Pay Scale Point 24 - 33	1 (for 5 years)
Total		7

We will also identify suitable on-street parking spaces to install EV chargers on a trial basis. This initiative will be undertaken by the EPD with existing resources. There is no separate breakdown of expenditure involved in this aspect.

(2) Apart from the Government's relaxation of the eligibility criteria of the "One-for-One Replacement" Scheme for electric private cars (e-PCs) and the above plan for enhancing EV charging facilities to encourage the public to choose e-PCs when they need to buy private cars, as regards electric commercial vehicles (e-CVs), we are also reviewing the subsidy scope of the Pilot Green Transport Fund (PGTF) to further promote wider use of green innovative transport technologies by the transport sectors, including e-CVs. The EPD is reviewing the scope of the PGTF along the following directions:

- Whilst the current conditions for approving subsidy for the PGTF trials (i.e. trials of technologies that stand a good chance of coping with the local operational requirements and can be adopted by the relevant transport sectors for wider use upon successful trial) should be retained, we will review if improvements can be made in various areas such as extending the subsidy scope to cover those vehicle types not yet included, applicants' eligibility, time

required for vetting applications, subsidy levels, limits on the number of applications for each type of technologies and conditions for receiving the subsidy (including the time for trial of the relevant technologies).

- The review should also explore means to encourage wider use of those technologies that have been proved by the trials to be relatively mature and suitable for adoption locally (e.g. whether subsidy should be provided to the trades for procuring the products for use and not for trial). We also need to map out the specifications and criteria for implementation.

The EPD will consult the trades, stakeholders and the Panel on Environmental Affairs of the Legislative Council after drawing up details of the review contents and the relevant proposals with the aim of completing the review in 2019.

(3) Waste EV batteries have to be properly handled under the Waste Disposal Ordinance. Most EV manufacturers or agents have currently engaged licensed collectors to collect/handle their waste EV batteries. After proper preliminary treatment, these waste EV batteries are exported to appropriate treatment facilities in Japan, Korea or Belgium for proper handling and/or recycling. Although the age of most EVs in Hong Kong remains low and the number of retired EV batteries remains small at this stage, as EVs will become more popular in future, the EPD is exploring with EV suppliers the issues of proper collection and handling of waste EV batteries so as to enhance environmental protection.

- End -

CONTROLLING OFFICER'S REPLY

ENB170

(Question Serial No. 2044)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding local recycling, would the Administration advise this Committee on the following:

- (1) The respective quantities of waste paper, aluminum cans and plastic bottles collected by three-colour recycling bins across the territory in the past 2 years;
- (2) The percentage of recyclables collected in three-colour recycling bins in the total quantity of recyclables across the territory;
- (3) Does the Department have any plan to review the effectiveness of the three-colour recycling bins so as to increase or reduce the number of the bins in different districts? If yes, what are the details?

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 21)

Reply:

(1) & (2) In the past 2 years, the Government placed about 16 000 sets of waste separation bins throughout the territory, including public places, schools, government quarters, country parks, and housing estates as well as commercial and industrial (C&I) buildings which had participated in the Source Separation of Waste Programme. Apart from the recycling bins (RBs) provided by the Government, additional RBs are also placed by many housing estates or C&I buildings on their own, and arrangements have been made by them with the downstream recyclers for the collection and treatment of the recyclables. We do not have the number of these RBs, hence we do not have information on the quantities of recyclables collected by RBs across the territory nor their percentage in the total quantity of recyclables in Hong Kong.

(3) Having regard to the objectives of facilitating waste reduction and resource recovery, and the effective implementation of municipal solid waste (MSW) charging, and the premise of striking a balance between the need of upholding environmental hygiene and cost-effectiveness in the use of public resources, the Steering Group on the Modification of Recycling and Refuse Collection Facilities in Public Places (the Steering Group) was set up

by the Environment Bureau in 2016 under the chairmanship of the Secretary for the Environment. The Steering Group comprises members drawn from the relevant sectors^{Note 9}, and is tasked with reviewing the distribution and design of recycling and refuse collection facilities in public places in a more systematic manner, and recommending modifications. In respect of the review on the number and distribution of RBs and litter containers (LCs) in public places, having regard to a set of general planning parameters recommended by a consultancy study, relevant government departments have put forward an adjustment plan. It is expected that the number of RBs will be increased by 45% while the number of LCs will be reduced by 40% in public places by the time when MSW charging is implemented, thereby enhancing the overall RB to LC ratio in public places from 1:14 to 1:6.

The consultant engaged by the Steering Group has come up with the conceptual design of the new RBs and LCs in public places and is tapping the views of frontline staff and relevant stakeholders before putting up the recommendations to the Steering Group for consideration.

- End -

^{Note 9} Including design and planning, academia, business, non-profit-making groups, district personalities, as well as relevant government departments.

CONTROLLING OFFICER'S REPLY

ENB171

(Question Serial No. 3288)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Environmental Protection Department (EPD) will roll out a pilot scheme to provide collection service of food waste generated from commercial and industrial (C&I) sources in 2019-20. In this connection:

1. please provide the specific details and implementation timetable of the pilot scheme, including the manpower and expenditure to be involved, the estimated total quantity of food waste collected each year, how the collected food waste will be treated and used, and whether the pilot scheme will be implemented by outsourced contractors;
2. please explain how the Department will promote and publicise the scheme to the C&I sectors to attract more enterprises to participate.

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 49)

Reply:

(1) To promote proper recycling of food waste and achieve the target of turning waste to energy, the Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. The pilot scheme will mainly involve collection of food waste generated by commercial and industrial (C&I) sectors, including the continued provision of food waste collection service for public markets and cooked food venues under the Food and Environmental Hygiene Department (FEHD), as well as wet markets and shopping centres managed by the Hong Kong Housing Authority (HA). The pilot scheme will also include free food waste collection service for all primary and secondary schools, and tertiary institutions in Hong Kong starting from the second quarter of this year through those school lunch suppliers or the canteens of the tertiary institutions which are interested to join the scheme.

Organic Resources Recovery Centre Phase 1 (O • PARK1) has come into operation since 1 July 2018 and can treat 200 tonnes of food waste daily. Since then, 40 public markets and cooked food venues under the FEHD and 9 shopping centres and wet markets under the

HA have started source separation and collection of food waste. The food waste collection contractor of the FEHD delivers source-separated food waste from the above 49 premises to the O • PARK1 for treatment every day. We are discussing with the relevant government departments on extending the free food waste collection service to other public markets, cooked food venues and shopping centres under the FEHD and the HA and other facilities, for example, more wholesale markets under the Agriculture, Fisheries and Conservation Department (AFCD) and hospitals under the Hospital Authority, etc. under the above pilot scheme.

Besides, in February this year, the Environmental Protection Department (EPD) invited school lunch suppliers to participate in the pilot scheme on free food waste collection service by collecting the food waste generated from their supply of lunch for primary and secondary schools and food left uneaten by students, and delivering such food waste to the O • PARK1. About 10 school lunch suppliers have indicated their interest in participating in the above pilot scheme at present. The contractor of the O • PARK1 engaged by the EPD is getting in contact with the interested school lunch suppliers to discuss the food waste collection arrangements. It is expected that the food waste collection service can be launched in the second quarter of this year.

In addition, the EPD is getting in touch with the canteens of the tertiary institutions to discuss various feasible options to provide free food waste collection service for them under the pilot scheme. Most tertiary institutions have indicated their interest in participating in the above pilot scheme.

We will also explore the provision of free food waste collection service for some of the C&I establishments which have been proactively delivering their food waste from different districts to the O • PARK1 at present. The number of establishments involved and the scale of collection are subject to the treatment capacities of the food waste recycling facilities.

The EPD is working with the Drainage Services Department (DSD) to examine the use of existing and planned sewage treatment works (STW) to take forward “food waste/sewage sludge anaerobic co-digestion” technology. The first “food waste/sewage sludge anaerobic co-digestion” trial scheme (the Trial Scheme) will be carried out at the Tai Po STW and can treat 50 tonnes of food waste daily. We are planning to allocate a portion of the treatment capacities of the O • PARK1 and the Trial Scheme at the Tai Po STW to provide free collection and recycling services for a portion of the domestic food waste. Priority will be given to food waste from housing estates with experience in food waste separation and recycling, such as the 35 private housing estates that have participated in the “Food Waste Recycling Projects in Housing Estates” under the Environment and Conservation Fund (ECF). These housing estates have received funding support from the ECF for installing on-site food waste treatment facilities, organising relevant educational and promotional activities, and putting source separation and recycling of food waste into practice. We will take the initiative to invite these housing estates to join the aforesaid pilot scheme on free food waste collection service.

Apart from that, we are planning to extend the “food waste/sewage sludge anaerobic co-digestion” trial scheme to cover the Sha Tin STW for commissioning in 2022. Having regard to the experience gained from the above pilot scheme, we will conduct a trial on

collection of domestic food waste in Sha Tin to test the operational and facilitation requirement for carrying out separation at source, collection and recycling of domestic food waste at different types of private and public housing estates, villages and composite commercial/residential buildings. We are seeking funding approval from the Legislative Council for construction of the Organic Resources Recovery Centre Phase 2 (ORRC2). Upon commissioning of the ORRC2, we will not only be able to further extend the free food waste collection service to cover more C&I establishments, but will also allocate a portion of its treatment capacity to recycle the domestic food waste collected for free from the households and villages within the area.

The implementation schedule of the above free food waste collection services will largely depend on the completion dates of the food waste recycling facilities. With the gradual completion of such facilities in future, we plan to extend the food waste collection services to cover all districts and sectors in Hong Kong in a prompt manner.

The estimated expenditure for implementing the pilot scheme to provide free food waste collection service in 2019-20 is about \$55 million.

7 additional non-directorate professional staff of the EPD (including Environmental Protection Officers and Environmental Protection Inspectors) will be dedicated to implementing source separation and collection of food waste.

(2) As mentioned above, we will take the initiative to contact the relevant government departments and organisations of different sectors to invite them to join the pilot scheme on free food waste collection service, such as school lunch suppliers, canteens of the tertiary institutions, public markets and shopping centres under FEHD and the HA, wholesale markets under the AFCD, hospitals and housing estates that have participated in the “Food Waste Recycling Projects in Housing Estates”, etc. In addition, the EPD will continue to encourage more C&I establishments to separate food waste at source, collect and deliver food waste to ORRCs for treatment through briefing sessions. We will also provide training for establishments interested in practising source separation of food waste. About 190 C&I establishments have participated in such training at present. The EPD will also arrange a contractor to provide suitable guidance and training for operators of public market stalls, cooked food venues and HA shopping centres, including advising them on how to practise source separation, collection and delivery of food waste.

- End -

CONTROLLING OFFICER'S REPLY

ENB172

(Question Serial No. 3213)

Head: (60) Highways Department
Subhead (No. & title): (-) Not Specified
Programme: (1) Capital Projects
Controlling Officer: Director of Highways (Jimmy P M CHAN)
Director of Bureau: Secretary for the Environment

Question:

Regarding the retrofitting of noise barriers on existing roads, will the Administration inform this Committee of the following -

The estimate for 2019-20 has earmarked provisions for retrofitting noise barriers on Long Tin Road and Ma Wang Road only. What measures will the Government implement to expedite the commencement of the remaining noise barriers retrofitting works? Has the Government set a target for the number of barriers retrofitting works to be commenced each year?

Asked by: Hon KWOK Wai-keung (LegCo internal reference no.: 12)

Reply:

The whole programme for retrofitting noise barriers on existing roads in Hong Kong involves many sections of roads and is massive in scale, and therefore has to be implemented in stages. Given that the funding arrangements of government works must follow the established procedures, and that due consideration has to be given to all relevant factors, the Government is unable to set a target for the number of noise barriers retrofitting works to be commenced each year. Nevertheless, the Government has been looking for ways to expedite the commencement of noise barriers retrofitting works. To this end, the Highways Department had engaged a consultant to conduct a feasibility study for a number of noise barriers retrofitting works under planning. The consultancy report has provided preliminary feasible options for the projects and relevant details on the advance design to enable faster and smoother work at the detailed design stage upon obtaining funding approval for the detailed design in the future. Moreover, to save time, the Government is also combining the detailed design work for noise barriers retrofitting works on different road sections.

- End -

CONTROLLING OFFICER'S REPLY

ENB173

(Question Serial No. 3181)

Head: (100) Marine Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Port Services

Controlling Officer: Director of Marine (Maisie CHENG)

Director of Bureau: Secretary for the Environment

Question:

The quantity of floating refuse collected in Rambler Channel has consistently reached new heights. What were the various measures implemented by the Government for preventing the generation of and handling the floating refuse in Rambler Channel and the expenditure involved for the past 5 years? Has the Government developed any new programmes or allocated additional resources for addressing the problem in view of the increasing quantity of floating refuse?

Asked by: Hon CHAN Han-pan (LegCo internal reference no.: 47)

Reply:

1. The Marine Department (MD) signed the existing contract for marine refuse cleansing services with the contractor for a term of 5 years commencing from 1 October 2017 and ending 30 September 2022, involving a contract expenditure of about \$447 million. This represents an increase of about \$258 million, or 136% in the contract expenditure when compared with the previous five-year contract. Under the new contract, the contractor provides a fleet of about 80 vessels for marine refuse cleansing, representing an increase of 10 vessels, or 14%, when compared with the previous contract. Among which, 8 are new vessels, including 6 fast response boats, 1 catamaran equipped with mechanical refuse cage and 1 vessel fitted with motor scooper. These vessels help enhance the efficiency and effectiveness in cleaning up marine refuse.
2. Currently, the contractor is providing a fleet of vessels of various types to clean up marine refuse in Hong Kong waters on a daily basis (including Sundays and public holidays), which includes offering domestic refuse collection service to vessels berthed in typhoon shelters, anchorages and small boat anchorage areas. The contract for the marine refuse cleansing services includes cleaning up floating refuse, collecting domestic refuse from vessels, managing refuse collection points and transporting refuse to landfills for disposal, etc. Since the expenditure for collecting the floating refuse in Rambler Channel forms part of the overall contract cost for the marine refuse cleansing services, there is no separate breakdown for such item.

3. The MD has increased a total of 5 Marine Inspector IIs and 2 patrol launches since 2017-18 to expand the staff establishment and equipment for conducting sea patrols to 10 Marine Inspector IIs and 4 patrol launches, with a view to stepping up inspection of cleanliness at sea across the territory and monitoring of the work performance of the contractor, as well as allocating resources in accordance with the actual needs to address the floating refuse problems in various districts. Moreover, the MD is planning to commence a trial run of floating booms in this year, which tackle the issue of marine refuse by intercepting floating refuse, in waters causing no obstruction to vessel traffic.

4. On the whole, the Government will continue to implement a series of measures to tackle the marine refuse problem, which include expanding cleanup actions for marine refuse, stepping up inspection, monitoring and cleaning up of marine refuse blackspots, providing additional facilities to prevent refuse from entering the marine environment, as well as strengthening cooperation with neighbouring cities, under the coordination of the Inter-departmental Working Group on Marine Environmental Management. The Government will also promote clean shorelines and waste reduction at source by means of publicity and educational campaigns, various Clean Shorelines Liaison Platform and the Environment and Conservation Fund. As for the resources required for such initiatives, the Government has already earmarked an additional provision of about \$40 million in 2019-20 for the departments concerned (including the Agriculture, Fisheries and Conservation Department, the Environmental Protection Department, the Food and Environmental Hygiene Department and the Leisure and Cultural Services Department) to enhance the equipment and to provide additional facilities and staffing in order to take forward the various improvement measures mentioned above.

- End -

CONTROLLING OFFICER'S REPLY

ENB174

(Question Serial No. 1383)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (2) Power
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

Regarding the promotion of the local use of solar energy, would the Government advise this Committee on the following:

1. What is the current percentage of output of electricity generated locally by solar energy?
2. How many solar panels are there in government buildings? What are their respective locations and annual power generation?
3. It is mentioned in the Budget that another \$1 billion will be set aside for departments to install renewable energy facilities. What are the details? What are the new selected sites for installation of additional solar panels?
4. To promote the development of renewable energy and use of energy-efficient building installations, tax incentives are provided for capital expenditure spent on the related installations. In this connection, what were the number of applications, the amounts of expenditure involved and the details in the past 5 years?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 30)

Reply:

1. According to the "Hong Kong Energy End-use Data", the amount of renewable energy (RE) currently accounts for roughly 0.1% of the "electricity" consumption, including the solar energy used to heat water and electricity generated by photovoltaic panels. We do not have their breakdowns.
2. The solar panel projects completed by the Architectural Services Department in the past 5 years (from 2014-15 to 2018-19) are tabulated below:

Name of government buildings/ public facilities	Completion date	Annual power generation (kWh)*
Construction of a station for the new Terminal Doppler Weather Radar	July 2014	4 000
District open space, sports centre and library in Area 74, Tseung Kwan O	November 2014	20 000
Kwun Tong promenade (stage 2)	December 2014	31 000
Reprovisioning of Cape Collinson Crematorium	December 2014	3 000
Redevelopment of Kwun Tong Swimming Pool Complex and Kwun Tong Recreation Ground	January 2015	15 000
Community Green Station (New Territories East)	January 2015	3 000
Relocation of part of the offices of the Department of Justice to the Main and East Wings of the Former Central Government Offices	March 2015	25 000
Construction of Trade and Industry Tower in Kai Tak Development Area	April 2015	28 000
Redevelopment of Victoria Park Swimming Pool Complex	July 2015	39 000
Redevelopment of Fire Services Training School	October 2015	36 000
West Kowloon Law Courts Building	November 2015	49 000
Po Leung Kuk Stanley Ho Sau Nan Primary School	December 2015	6 000
Public library and indoor recreation centre in Area 3, Yuen Long	March 2016	9 000
Sports centre, community hall and district library in Area 14B, Sha Tin	March 2016	11 000
Reprovisioning of Yaumatei Specialist Clinic at Queen Elizabeth Hospital	June 2016	16 000
Redevelopment of Tai Lam Centre for Women	November 2016	25 000
Tung Wah Group of Hospitals Ma Kam Chan Memorial Primary School (in Area 36, Fanling)	July 2017	5 000
A school for social development for girls at Choi Hing Road, Kwun Tong, Kowloon	August 2017	3 000
Hong Kong Children's Hospital	September 2017	5 000
Two special schools at Sung On Street, To Kwa Wan	December 2017	3 000

Name of government buildings/ public facilities	Completion date	Annual power generation (kWh)*
Relocation of New Territories West Regional Office and Water Resources Education Centre of Water Supplies Department to Tin Shui Wai	February 2018	24 800
Staff quarters for Immigration Department at Heng Lam Street, Kowloon	September 2018	4 300
Pun U Association Wah Yan Primary School/North Point Methodist Primary School on Pak Fuk Road	September 2018	7 900
A special school near Hoi Lai Estate, Sham Shui Po	September 2018	5 000
Rank and file quarters for Customs and Excise Department at Yau Yue Wan Village Road, Tseung Kwan O	October 2018	19 700
Government Complex in Area 14 (Siu Lun), Tuen Mun	February 2019	6 300

* The figure denotes the estimation of annual power generation made during the design stage of the solar panel projects.

3. We set aside a total of \$1 billion in the financial years 2017-18 and 2018-19 for departments to install RE facilities at government buildings, venues and community facilities. Responses have been positive. In support of the Policy Address, another \$1 billion is set aside in the 2019-20 Budget for departments to further install relevant facilities. We will, in accordance with the established practice, invite departments to submit plans for their proposed RE installation projects. Details of the new projects are not yet available at this stage.

4. The yearly number of applications received by the Inland Revenue Department (IRD) for concessionary tax deductions in relation to environmental protection installations and the total deductions granted since the 2012/13 year of assessment are set out in the table below:

Year of assessment	Number of cases in which applications were made for deductions	Total deductions (\$million)
2016/17	7	32.2
2015/16	9	25.1
2014/15	12	21.7
2013/14	17	21.3
2012/13	23	78.5

The IRD does not have the yearly statistics for the 2017/18 year of assessment as the assessment period has not yet ended. As the enhanced tax incentive proposed in last year's Budget has only been implemented since the 2018/19 year of assessment, the IRD does not have the statistics at this juncture.

- End -

CONTROLLING OFFICER'S REPLY

ENB175

(Question Serial No. 1309)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (3) Sustainable Development
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

Under this programme, one of the responsibilities of the Environment Bureau (ENB) is to promote sustainable development in Hong Kong. In this connection, please advise this Committee on the amount of expenditure used in carrying out the related work in 2018-19 and its effectiveness. Please provide a breakdown on the programmes and the outcomes. What are the work plans and timetable of the ENB for promoting sustainable development in Hong Kong in 2019-20? What is the estimated expenditure?

Asked by: Hon CHUNG Kwok-pan (LegCo internal reference no.: 51)

Reply:

To promote public awareness of sustainable development, the Environment Bureau (ENB) is assisting the Council for Sustainable Development (SDC) in carrying out public education and publicity activities. The major programmes are as follows:

(1) Sustainable Development School Outreach Programme

This programme aims at promoting the concepts and practices of sustainable development among secondary school students through organising talks, workshops and drama performances in schools. In the 2018/19 school year, a total of 86 schools enrolled for 17 talks, 12 workshops and 81 drama performances, with an estimated participation of 24 000 teachers and students. The expenditure involved in the financial year 2018-19 was about \$760,000.

(2) Sustainable Development School Award Programme

This programme aims at encouraging schools to participate in and organise sustainable development related activities so that students can put sustainable development concepts into practice in schools and in the community. A total of 60 schools have enrolled for the current round (2018/19 and 2019/20 school years) of the programme, with an estimated participation of 100 000 teachers, students and members of the community. The expenditure involved in the financial year 2018-19 was about \$780,000.

(3) Sustainable Development Promotion Award for Students of Higher Education Institutions

This award aims at encouraging students of higher education institutions to organise and implement projects to apply sustainable development practices in daily lives and promote relevant messages in the community. There are 12 entries for the current round of the award. The expenditure involved in the financial year 2018-19 was about \$60,000.

(4) Sustainable Development Fund

Projects funded by the Sustainable Development Fund (the Fund) aim at enhancing public awareness of the principles of sustainable development and encouraging sustainable practices among members of the public. The ENB is responsible for monitoring the operation of the Fund. A total of 50 applications were received in the recent thirteenth round of applications for the Fund, among which 7 projects have been approved with a total grant of about \$6.5 million. The revised estimated expenditure in the financial year 2018-19 for the Fund was about \$3.8 million. We will continue to monitor the implementation of the approved projects, and start the preparatory work for the fourteenth round of applications for the Fund in the financial year 2019-20.

The ENB has organised Sustainable Development workshops and Computer-Aided Sustainability Evaluation Tool (CASET) training courses internally within the Government, so as to enhance the awareness of government employees about the concept of sustainable development and their ability in applying the sustainability evaluation tool. About 260 participants participated in 7 workshops and 5 training courses in 2018 and the expenditure involved was \$30,000.

The above education, publicity and training work on sustainable development will continue to be implemented in 2019-20. The ENB and the Fund have earmarked \$850,000 and \$3.5 million respectively for such work and the specific allocations will be subject to the actual needs of each programme.

- End -

CONTROLLING OFFICER'S REPLY

ENB176

(Question Serial No. 2848)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (3) Sustainable Development
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

The Financial Secretary stated in the Budget Speech that “Lantau Tomorrow is a grand vision. The Government will take forward the projects concerned in phases to open up more land for improving our living environment and quality as well as meeting the need for social development.” Please advise whether the Environment Bureau (ENB) has conducted environmental assessments for the Lantau Tomorrow Vision and the projects in North Lantau and on the artificial islands in the Central Waters, and whether assessments have been conducted to see if these plans adhere to the principle of sustainable development. If yes, what are the details? If no, what are the reasons?

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 34)

Reply:

The Development Bureau (DEVB) is responsible for conducting environmental and sustainability assessments for Lantau Tomorrow. The DEVB expects that the detailed project studies of the artificial islands in the Central Waters will include environmental and sustainability assessments.

- End -

CONTROLLING OFFICER'S REPLY**ENB177****(Question Serial No. 1494)**Head: (137) Government Secretariat : Environment BureauSubhead (No. & title): (-) Not SpecifiedProgramme: (2) PowerControlling Officer: Permanent Secretary for the Environment (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

During 2019-20, the Environment Bureau will continue to promote the Charter on External Lighting and the Guidelines on Industry Best Practices for External Lighting Installations, and continue to support the Working Group on External Lighting (WGEL) to conduct the review of the Charter on External Lighting. Would the Administration advise on the following:

- 1) The number of complaints received about light pollution in various districts in the past 3 years;
- 2) The Charter on External Lighting has been implemented for many years. What is its effectiveness?
- 3) How can the Administration follow up on the subjects of the complaints, like the business establishments installed with huge illuminated signboards, effectively?

Asked by: Hon IP LAU Suk-ye, Regina (LegCo internal reference no.: 40)Reply:

(1) and (3) The numbers of complaints against external lighting received by the Environmental Protection Department (EPD) in the past 3 years are as follows:

District	2016	2017	2018
Central and Western	29	30	44
Wan Chai	54	51	41
Eastern	16	28	37
Southern	14	5	25
Yau Tsim Mong	56	53	56
Sham Shui Po	18	19	36
Kowloon City	24	39	33
Wong Tai Sin	1	8	5

District	2016	2017	2018
Kwun Tong	12	10	16
Tsuen Wan	6	1	23
Tuen Mun	11	13	24
Yuen Long	25	17	28
North	11	8	13
Tai Po	1	8	16
Sai Kung	4	27	32
Sha Tin	30	14	15
Kwai Tsing	18	20	28
Islands	5	4	5
Total	335	355	477

Upon receipt of complaints against light nuisance caused by external lighting, the EPD would relay the complainants' concerns and requests to the persons responsible for the lighting installations in question, and advise them to refer to the Guidelines on Industry Best Practices for External Lighting Installations (the Guidelines) and take appropriate measures to minimise the impact of the lighting installations on the residents in the vicinity. Most of the persons responsible for the lighting installations would, upon receipt of complaints, adopt measures to minimise light nuisance as far as practicable.

(2) Since the Charter on External Lighting (the Charter) took effect in April 2016, nearly 5 000 participants from different sectors, including building management, property development, hotels and catering, retail, laundry, banking, telecommunications and real estate agencies, as well as schools, public utilities and public/non-governmental organisations, have signed the Charter. Although the Charter is a voluntary document, most of the participants take their pledge seriously. Our on-site compliance checks conducted in 2017 and 2018 show that over 99% of the participants have followed the switch-off requirement.

To review the effectiveness of the Charter, the Government reorganised the Working Group on the Promotion of the Charter of External Lighting into the Working Group on External Lighting (WGEL) in August 2018, and expanded its scope of work to include promotion of the Charter, reviewing its effectiveness and advising the Government on more options to effectively manage external lighting. The WGEL is now engaging consultancies through the Environment Bureau to conduct an opinion survey to gauge the views of various sectors and members of the public towards the current situation and regulation of external lighting; and to look into regulatory arrangements adopted by other economies and cities for external lighting installations and consider whether there are any outside experiences, measures and standards that Hong Kong can learn from. In addition, we plan to measure the changes of illumination level in different districts in Hong Kong to assess the effectiveness of the Charter. The WGEL expects to complete the review and submit its recommendations to the Government in the first half of 2020.

- End -

CONTROLLING OFFICER'S REPLY**ENB178****(Question Serial No. 1495)**Head: (137) Government Secretariat : Environment BureauSubhead (No. & title): (-) Not SpecifiedProgramme: (2) PowerControlling Officer: Permanent Secretary for the Environment (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

During 2019-20, the Environment Bureau will continue to encourage the wider application of renewable energy (RE) projects at government buildings and facilities and promote the development of RE in the private sector.

1) How is the application of the RE projects at government buildings at present? What are the financial commitments involved?

2) What are the measures to be taken by the Administration to promote the development of RE in the private sector? What are the financial commitments involved and the progress?

Asked by: Hon IP LAU Suk-ye, Regina (LegCo internal reference no.: 41)Reply:

1. Currently, the types of renewable energy (RE) projects applied at government buildings and facilities include: photovoltaic (PV) systems, solar water heating systems, wind power systems, waste-to-energy systems, biogas and hydropower systems, etc. The numbers of RE projects installed at newly-built government buildings by the Architectural Services Department and the power generated by the projects concerned in the past 5 years are tabulated below. The total expenditure on RE projects was about \$64.34 million.

Project Completion year	Number of buildings	Annual power generation (kWh)*
<u>PV system⁺</u>		
2014	6	84 000
2015	8	201 000
2016	4	61 000
2017	4	16 000
2018	5	62 000
<u>Solar water heating system</u>		
2014	1	133 000

Project Completion year	Number of buildings	Annual power generation (kWh)*
2015	4	434 000
2016	5	190 000
2017	4	580 000
2018	1	12 000
Wind power system⁺		
2015	3	5 000

+ Excluding small-scale RE installations such as lighting systems used in open spaces and public parks.

* The figure denotes the estimation of annual power generation made during the design stage of the RE projects.

2. The Government has been striving to create conditions to facilitate the development of RE by the private sector. Under the Scheme of Control Agreements signed between the Government and the power companies, the two power companies formally launched the Feed-in Tariff (FiT) Schemes in October 2018 and January 2019 respectively to provide financial incentives to encourage the private sector to invest in distributed RE systems. In addition, we have a series of new initiatives in place to further support the development of RE by the community. For instance, we have suitably relaxed the requirements in relation to installation of solar PV systems on the rooftops of New Territories Exempted Houses. Moreover, we are pursuing legislative amendments to provide exemption from the requirements to apply for business registration and pay profits tax in respect of participation in and the payments received under the FiT Schemes. We have also launched Solar Harvest to assist eligible schools and welfare non-governmental organisations in installing small-scale RE systems. The Environment Bureau handles the above-mentioned work with its existing manpower and resources.

- End -

CONTROLLING OFFICER'S REPLY

ENB179

(Question Serial No. 2600)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (2) Power
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

One of the aims of the Administration's energy policy is to ensure safe, reliable and efficient energy supply at reasonable prices while minimising the environmental impact caused by the production and use of energy through the established monitoring arrangements for the operation of the two power companies and the town gas supply company. In this connection, would the Administration please advise on the following:

1. What mechanism does the Administration have currently to ensure that the electricity tariffs remain at "reasonable prices"?
2. What are the current fuel mix and costs of various fuels of the two power companies?
3. What are the staff establishment and expenditure allocated currently by the Administration for overseeing fuel procurement of the power companies?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 12)

Reply:

1. Under the Scheme of Control Agreements (SCAs), the two power companies have to submit development plans to the Government regularly for approval of their capital expenditures. With the support of an independent energy consultant, the Government will critically examine the need, timing and cost effectiveness of the capital investment proposals in order to ensure that there are genuine needs for these projects and to avoid excessive, premature, unnecessary or unreasonable investments.

In determining the annual tariff adjustments with the two power companies, the Government will critically examine the tariff proposals of the two power companies in order to ensure that the electricity tariffs are maintained at a reasonable level. The Government will review with the two power companies whether their projected electricity sales, capital expenditures and operating expenditures, etc. are reasonable, and will compare them with the projections made for the relevant year in the latest approved development plans. Regarding fuel costs, the Government will also examine the fuel prices in the tariff proposals and analyse whether the projections of the two power companies are reasonable and in line with the trend in the international market with the support of an independent energy consultant.

The Government will act as a stringent gatekeeper under the framework of the SCAs to ensure that the electricity tariffs are maintained at a reasonable level so as to safeguard the interests of consumers.

2. We cannot disclose the breakdown of fuel costs of the two power companies since it might weaken their bargaining power with fuel suppliers, resulting in higher fuel costs to be borne by the public. In 2018, the fuel mix and actual total fuel costs of CLP Power Hong Kong Limited (CLP) and The Hongkong Electric Company, Limited (HKE) are as follows:

	CLP	HKE
<u>Fuel type</u>		
Coal	38%	68%
Natural gas	26%	32%
Nuclear	35%	-
Oil and renewable energy	1%	0%
	100%	100%
Actual total fuel costs (\$ million)	13,102 (Note)	4,511

Note: The actual total fuel costs of CLP include fuel costs incurred in local and Mainland sales

3. Overseeing the fuel procurement of power companies is part of the duties of the Financial Monitoring Division (FMD), and therefore we cannot identify the manpower and actual expenses for this work separately. The establishment of FMD is as follows:

Rank	Number
Assistant Director of Accounting Services	1
Senior Treasury Accountant	2
Treasury Accountant	2
Accounting Officer I	2
Personal Secretary I	1
Personal Secretary II	1
Total	9

- End -

CONTROLLING OFFICER'S REPLY**ENB180****(Question Serial No. 2499)**Head: (137) Government Secretariat : Environment BureauSubhead (No. & title): (-) Not SpecifiedProgramme: (1) Director of Bureau's OfficeControlling Officer: Permanent Secretary for the Environment (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

The Office of the Secretary for the Environment is responsible for providing support to the Secretary for the Environment (SEN) in undertaking political work, providing administrative support, the planning and co-ordination of all arrangements for the Secretary's public, media and community functions. Would the Administration please provide the following:

(a) Please set out the details of SEN's political work from 2014-15 to 2018-19:

	Name of work	Nature/details	Date/time	Breakdown on expenditure	Current progress	The then SEN
1.						
2.						
3.						

(b) Please set out the details of the local and overseas functions attended by SEN from 2014-15 to 2018-19:

	Name of public/media/community function	Purpose of attending the function/duties	Date/time	The then SEN	Entourage members (names/post titles)	Breakdown on expenditure
1.						
2.						

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 42)Reply:

The Secretary for the Environment (SEN) attends a wide range of local functions from time to time to liaise with different sectors of the community in order to seek their views on environmental policies and initiatives and solicit support for the Bureau's work. We do not compile statistics on the local functions attended by SEN, therefore the information required is not available. Expenses (if any) incurred by SEN's attendance at such

functions have already been reflected in the operational expenses of the ENB. Details of the overseas duty visits made by SEN are provided at the Annex.

Overseas Duty Visits made by the Secretary for the Environment

Date of visit	Purpose of visit	Places of visit	No. of accompanying officers from the Director of Bureau's Office	Days of visit	Total expenses of SEN and accompanying officers from the Director of Bureau's Office (Note 1) (\$)	Ticket expenses (Note 1 and Note 2) (\$)	Accommodation expenses (Note 1 and Note 2) (\$)	Other expenses (Note 1, Note 2 and Note 3) (\$)
2014-15 (9)	Meetings and exchanges on environmental protection, energy and related policies; attending international conferences	Mainland China, USA, Macao	1-2 persons	1-8 days	442,000	288,000	60,000	94,000
2015-16 (7)	Same as above	Mainland China, France, Italy, Philippines, Germany, Macao	1-3 persons	1-10 days	844,000	494,000	173,000	177,000
2016-17 (10)	Same as above	Mainland China, Japan, Mexico, USA, Macao	1-2 persons	1-8 days	558,000	306,000	63,000	189,000
2017-18 (6)	Same as above	Mainland China, France, Germany	0-2 persons	2-5 days	551,000	373,000	70,000	108,000
2018-19 (5) (Upto mid-March 2019)	Same as above	Mainland China, Macao, Japan, USA	1-2 persons	1-6 days	438,000	206,000	76,000	156,000

- Note 1: Information provided up to mid-March 2019. The remaining expenses are not included.
- Note 2: Expenses include those of accompanying officers from the Director of Bureau's Office.
- Note 3: Other expenses include meals, local transportation and other miscellaneous expenses reimbursable under the Civil Service Regulations.

- End -

CONTROLLING OFFICER'S REPLY**ENB181****(Question Serial No. 1874)**Head: (137) Government Secretariat : Environment BureauSubhead (No. & title): (-) Not SpecifiedProgramme: (2) PowerControlling Officer: Permanent Secretary for the Environment (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

According to the *Hong Kong's Climate Action Plan 2030+*, starting from April 2017, the target of electricity consumption powered by renewable energy (RE) at new schools and in educational buildings will be upgraded from 1% to 1.5%. In this connection, please advise on the following:

(1) Since April 2017, what are the number of new schools and educational buildings with RE power generation installations and their percentage in the total number of new schools and educational buildings?

(2) Please set out in the following table the details of the RE installation projects in the participating schools and educational buildings mentioned above:

Name of building	Contents of project	Location of the RE installations	Year of service	Cost	Installed capacity	Annual total electricity generated	Average electricity generation in a year	Whether the school/ educational building has joined the Feed-in Tariff (FiT) Scheme

(3) What are the Administration's estimated expenditure on the promotion of RE installations at new schools and in educational buildings and the details in 2019-2020?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 206)

Reply:

(1) and (2) Since April 2017, the Architectural Services Department (ArchSD) has completed 5 renewable energy (RE) power generation installation projects at new schools and in educational buildings. The details are as follows:

Name of building	Contents of project	Location of the RE installations	Year of service	Cost	Installed capacity (kW)	Annual total electricity generated	Average electricity generation in a year (kWh)*
Tung Wah Group of Hospitals Ma Kam Chan Memorial Primary School (Area 36, Fanling)	Photovoltaic system	Rooftop	3 rd quarter of 2017	\$490,000	8	As ArchSD does not have record on the electricity generated, such information is not available.	5 200
A school for social development for girls at Choi Hing Road, Kwun Tong, Kowloon	Photovoltaic system and solar water heating system	Rooftop	3 rd quarter of 2017	\$910,000	7		6 000
Two special schools at Sung On Street, To Kwa Wan	Photovoltaic system and solar water heating system	Rooftop	4 th quarter of 2017	\$570,000	13		6 200
Pun U Association Wah Yan Primary School/North Point Methodist Primary School on Pak Fuk Road	Photovoltaic system	Rooftop	3 rd quarter of 2018	\$1,200,000	8		7 900
A special school near Hoi Lai Estate, Sham Shui Po	Photovoltaic system	Rooftop	3 rd quarter of 2018	\$600,000	8.5		5 000

*The figure denotes the estimation of annual power generation made during the design stage of the RE projects.

Regarding the percentage of new schools and educational buildings with RE power generation installations in the total number of new schools and educational buildings, the ArchSD does not have the relevant figures.

School sponsoring bodies may decide on their own whether to join the Feed-in Tariff Scheme. The ArchSD is unable to provide such information.

(3) 4 new school projects with RE power generation installations are expected to be completed by the ArchSD in 2019-20, and the estimated expenditure on these installation works is about \$2.1 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB182

(Question Serial No. 1884)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in the 2019-20 Budget that the Government set aside a total of \$ 1 billion in its previous 2 Budgets to reinforce its drive to install renewable energy (RE) installations at government buildings, venues and community facilities, and another \$1 billion will be allocated. In this connection, please advise on the following:

(1) In the past 2 years, what were the amounts of funding granted by the Administration? What were the RE projects completed with such funding? What were the cost, installed capacity, estimated and actual annual power generation, estimated payback period, as well as the estimated and actual quantity of carbon emissions reduced of each project?

(2) Apart from the completed projects mentioned above, what projects are under preparation? What are the cost, installed capacity, estimated annual power generation, estimated payback period, as well as the estimated and actual quantity of carbon emissions reduced of these projects?

(3) What are the relevant application and vetting procedures for government bureaux and departments to install RE installations with the reserved funding? What conditions must the applications meet for them to be approved (for example, a certain level that the power generation efficiency must reach, or the duration that the payback period must not exceed)?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 215)

Reply:

(1) The Government set aside a total of \$1 billion in the financial years 2017-18 and 2018-19 for departments to install renewable energy (RE) facilities at government buildings, venues and community facilities.

The amount of funding approved in the financial year 2017-18 was about \$125 million. The details are as follows:

Project	Reserved funding (\$m)	Installed capacity (kW)	Estimated annual power generation (kWh)
Installation of an additional combined heat and power generation system and re-installation of an electricity distribution network at Tai Po Sewage Treatment Works	29.8	635#	2 000 000
Installation of an additional mini-turbine at Yuen Long Sewage Treatment Works	6.2	65#	180 000
Provision of a grid-connected solar energy system at Stonecutters Island Sewage Treatment Works	10	100*	73 000
Provision of solar energy systems at some rainwater and sewage treatment facilities	30	300*	284 700
Installation of solar energy systems at Hoi Ha Wan Marine Park Visitor Centre, Tai Mo Shan Country Park Visitor Centre and Aberdeen Tree Centre	7.5	37.5*	4 500
Installation of a solar energy system at the Hong Kong Wetland Park	4.5	22.5*	2 700
Installation of solar energy systems at 18 parks under the Leisure and Cultural Services Department	23	13*	11 000
Installation of solar energy systems at the Hong Kong Auxiliary Police Force Headquarters and the Hong Kong Police College	14	45*	40 000

*Estimated total installed capacity

#Actual total installed capacity

The amount of funding approved in the financial year 2018-19 was about \$235 million for installation of RE facilities at government schools, leisure, cultural services and recreation facilities, government offices, sewage treatment works and other government facilities.

The relevant departments are conducting technical assessment to ascertain the feasibility, cost, installed capacity and estimated annual power generation of individual projects.

As the above projects have not yet been completed, the records of the actual power generation are not yet available at present, and we are unable to estimate the quantity of carbon emissions reduced.

As regards the estimated payback period, we would like to point out that payback period is not the only criterion for evaluating the effectiveness of RE systems. Some unquantifiable values (such as the reduced reliance on the use of fossil fuels for power generation and less pollution caused to the environment, and the demonstration effects of the systems to the public, etc.) have not been taken into account. Therefore, the duration of the payback period may not fully and accurately reflect the actual effectiveness of the systems. Moreover, the actual power generated by RE systems such as solar photovoltaic (PV) panels may vary with the weather and sufficiency of sunlight in the district, as well as the specific installation details such as the tilting of PV panels. The actual reduction in energy cost as a result of the installation of solar water heating system also depends on the utilisation and operation patterns of the buildings, which will lead to a discrepancy in estimation of the payback period.

(2) and (3) Another \$1 billion will be set aside in the 2019-20 Budget for departments to further install the relevant facilities. We will invite departments to submit project plans in accordance with the established practice. When examining the plans, we will consider the power generation potential, costs of the projects as well as whether the projects have demonstration effects, etc. As we will receive applications for new projects later, we are unable to provide details of the projects at present.

- End -

CONTROLLING OFFICER'S REPLY**ENB183****(Question Serial No. 1885)**

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (3) Sustainable Development

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Council for Sustainable Development (SDC) provides training programmes for bureaux and departments on the sustainable development (SD) principles and the sustainability assessment system, and promotes public awareness of the principles of SD. In this connection, please advise on the following:

- (1) The government departments for which the SDC provided the training programmes, as well as the mode of training, number of participants, content, effectiveness and expenditure in each of the past 5 years;
- (2) The community education programmes held by the SDC, their target groups, number of participants, content, effectiveness and expenditure in each of the past 5 years; and
- (3) What are the details of the work, estimated expenditure and manpower of the SDC in 2019-2020?

Asked by: Hon LEUNG Kenneth (LegCo internal reference no.: 216)

Reply:

(1) In the past 5 years, the Environment Bureau (ENB) provided training programmes to government bureaux and departments on the sustainable development (SD) principles and the sustainability assessment system in the form of workshops and training courses. The details are as follows:

Year	2014	2015	2016	2017	2018
Number of times	10	15	13	15	12
Number of participants	About 250	About 220	About 210	About 320	About 260
Expenditure on venue	About \$20,000	About \$50,000	About \$30,000	About \$40,000	About \$30,000

(2) The ENB provides secretariat support to the Council for Sustainable Development (SDC), and assists the SDC in implementing education and publicity programmes to promote public awareness of the principles of SD. The main relevant work in the past 5 years is set out below:

Financial year	2014-15	2015-16	2016-17	2017-18	2018-19
Sustainable Development School Outreach Programme (Note 1)	This programme aims at promoting the concepts and practices of SD among secondary school students through organising talks, workshops and drama performances in schools.				
Number of participating schools	52	57	78	82	86
Number of participating teachers and students	About 15 000	About 11 000	About 22 000	About 24 000	Estimated to be about 24 000
Number of talks	21	22	21	16	17
Number of workshops	18	11	11	9	12
Number of drama performances	39	50	69	80	81
Expenditure involved	About \$470,000	About \$580,000	About \$600,000	About \$760,000	About \$760,000
Sustainable Development School Award Programme (Note 2)	This programme aims at encouraging schools to participate in and organise SD related activities so that students can put SD concepts into practice in schools and in the community. As this is a biennial programme, the expenditure was calculated by combining the expenditures for the two years.				
Number of participating schools	52		52		60
Number of participating teachers, students and members of the community	About 100 000		About 100 000		Estimated to be about 100 000
Expenditure involved	About \$820,000		About \$810,000		About \$780,000

Financial year	2014-15	2015-16	2016-17	2017-18	2018-19
Sustainable Development Promotion Award for Students of Higher Education Institutions	/		This award aims at encouraging students of higher education institutions to organise and implement projects to apply SD practices in daily lives and promote relevant messages in the community.		
Number of participating students	Not applicable	Not applicable	98		47
Number of entries (teams)			19		12
Expenditure involved			About \$230,000		About \$60,000
Promotion of public engagement activities			<u>Public Engagement on Promotion of Sustainable Consumption of Biological Resources</u> Community education activities included arranging roving exhibitions, producing trendy picture cards and educational short videos, organising guided shopping tours and cooking demonstrations, etc. These activities were part of the services provided by the public relations agency. We do not have the breakdowns for these activities.		<u>Public Engagement on Long-term Decarbonisation Strategy</u> This activity is currently under preparation.

Note 1: The numbers of participating schools, teachers and students of this programme and the numbers of talks, workshops and drama performances were calculated based on each school year; whereas the expenditures involved were calculated based on financial year. As the 2018/19 school year has not yet finished, the number of participating teachers and students for that relevant round is an estimated number.

Note 2: The numbers of participating schools, teachers, students and members of the community of this programme were calculated based on the relevant round (which included two school years);

whereas the expenditure involved for the relevant round included the expenditures for the two relevant financial years. As the 2018/19 school year has not yet finished and the 2019/20 school year has not yet started, the number of participating teachers, students and members of the community for that relevant round is an estimated number.

The SDC is also responsible for vetting applications for the Sustainable Development Fund (SDF) and monitoring the use of the SDF. Funding support can enhance public awareness of the principles of SD, and encourage sustainable practices among members of the public. In the past 5 years, (2014-15 to 2018-19), the SDF approved a total of 3 rounds of grants, including 6 projects in 2014 with a total grant of about \$8.23 million; 4 projects in 2016 with a total grant of about \$5.14 million; and 7 projects in 2018 with a total grant of about \$6.48 million, and the total grant was about \$19.85 million. The details are set out at the Annex.

(3) The major work of SDC in 2019 is to launch the public engagement (PE) on “Long-term Decarbonisation Strategy”. The SDC plans to issue the PE document in the first half of 2019. This will be followed by the public interaction stage during which a series of public interaction events will be organised. Having regard to the views collected, the SDC will formulate recommendations and submit its report to the Government. The expenditure for the whole public engagement exercise includes consultancy fees, publicity and other expenses (e.g. the expenditure for organising public interaction events, etc.), and the estimates for 2019-20 is about \$5.08 million.

In addition, the SDC will continue to conduct education and publicity work to promote SD. The work in this aspect mainly includes the Sustainable Development School Outreach Programme, the Sustainable Development School Award Programme, and the Sustainable Development Promotion Award for Students of Higher Education Institutions, etc. The estimated expenditure in 2019-20 is \$850,000. The estimated expenditure of the SDF in 2019-20 is \$3.5 million, similar to that in 2018-19. The above-mentioned work is supported by 13 staff members of the Council Secretariat.

Projects approved for funding under SDF from 2014-15 to 2018-19

Project name	Amount approved (\$)	Commencement date	Nature of project	Main target groups
Tin Shui Wai Sustainable Development Community Academy	1,376,650	April 2015	Environmental education project for the community	General public
Use Less Love More – Kowloon City Promoting Sustainable Development Project	1,164,369	May 2015	Environmental education project for the community	General public
“Save for More, Love to all” Sustainable Social Development and Care Project	1,339,148	July 2015	Environmental education project for the community	General public
Development of Hong Kong Green Purchasing Guidelines for Food & Beverage (F&B) Sector	1,859,000	June 2015	Environmental education project for enterprises	General public and the business sector
Sustainable One-stop Food Waste Regeneration	971,490	April 2015	Environmental education project for the community	General public
Reduce, Reuse, Community Engagement, Household Food Waste Recycling Program	1,515,960	March 2015	Environmental education project for the community	General public
Fostering Sustainable Consumption for Hong Kong Business and the Community	1,518,300	February 2017	Environmental education project for the community and enterprises	General public and the business sector
“Love & Sustainability” Community Engagement Project	866,975	March 2017	Community project	General public

Project name	Amount approved (\$)	Commencement date	Nature of project	Main target groups
Promoting Sustainable Seafood Through Seafood Guide Programme	1,250,249	February 2017	Environmental education project for the community and enterprises	General public and the business sector
Know it and Do it! A Project to Promote Sustainable Lifestyle by Women	1,502,194	March 2017	Community project	General public
“E” Pioneer Project for Promoting Sustainable Consumption of Biological Resources	1,267,692	March 2019	Environmental education project for the community	General public
Be the Ranger of Sustainable Bio-resources	476,400	February 2019	Environmental education project for the community	General public
Sustainable Consumption Behaviour Study	1,200,000	October 2019	Research project	-
Green Tourism, Green Lives: Promoting Sustainability in Hong Kong’s Hospitality Industry	1,035,000	February 2019	Environmental education project for the community and enterprises	General public and the business sector
‘Imagine Sai Kung’ Sustainable Development Campaign*	114,059	-	Environmental education project for the community	-
No More Plastic Action	1,700,300	January 2019	Environmental education project for the community	General public
Lets – Less Movement	686,940	February 2019	Environmental education project for the community	General public

*The approved project was withdrawn by the organisation.

- End -

CONTROLLING OFFICER'S REPLY**ENB184****(Question Serial No. 2002)**

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Environment Bureau's main responsibilities under the programme of power include promoting the adoption of renewable energy (RE). It is proposed in the Budget that another \$1 billion will be allocated for departments to continue to install RE facilities at government buildings, venues and community facilities. Please provide the locations where RE facilities have been installed, and the specific locations, plans and timetables for installing RE facilities using the additional allocation.

Asked by: Hon LIAO Cheung-kong, Martin (LegCo internal reference no.: 35)

Reply:

The Government set aside a total of \$1 billion in the financial years 2017-18 and 2018-19 for departments to install renewable energy (RE) facilities at government buildings, venues and community facilities. Responses have been positive.

The amount of funding approved in the financial year 2017-18 was about \$125 million. The details are as follows:

Project	Reserved funding (\$m)	Installed capacity (kW)	Estimated annual power generation (kWh)
Installation of an additional combined heat and power generation system and re-installation of an electricity distribution network at Tai Po Sewage Treatment Works	29.8	635#	2 000 000

Installation of an additional mini-turbine at Yuen Long Sewage Treatment Works	6.2	65#	180 000
Provision of a grid-connected solar energy system at Stonecutters Island Sewage Treatment Works	10	100*	73 000
Provision of solar energy systems at some rainwater and sewage treatment facilities	30	300*	284 700
Installation of solar energy systems at Hoi Ha Wan Marine Park Visitor Centre, Tai Mo Shan Country Park Visitor Centre and Aberdeen Tree Centre	7.5	37.5*	4 500
Installation of a solar energy system at the Hong Kong Wetland Park	4.5	22.5*	2 700
Installation of solar energy systems at 18 parks under the Leisure and Cultural Services Department	23	13*	11 000
Installation of solar energy systems at the Hong Kong Auxiliary Police Force Headquarters and the Hong Kong Police College	14	45*	40 000

* Estimated total installed capacity

Actual total installed capacity

The above projects are in progress and have not yet been completed.

The amount of funding approved in the financial year 2018-19 was about \$235 million for installation of RE facilities at government schools, leisure, cultural services and recreation facilities, government offices, sewage treatment works and other government facilities. The relevant departments are conducting technical assessment to ascertain the feasibility and detailed plans of individual projects.

In support of the Policy Address, the 2019-20 Budget has set aside another \$1 billion for departments to further install the relevant facilities. As we will invite departments to submit project plans later, details of the projects cannot be provided at this stage.

- End -

CONTROLLING OFFICER'S REPLY

ENB185

(Question Serial No. 2017)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

In 2018-19, the work of the Environment Bureau (ENB) included reviewing the scope of the Mandatory Energy Efficiency Labelling Scheme (MEELS) and completing legislative processes pursuant to the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598) to include five additional categories of products under MEELS. In addition, during 2019-20, the ENB will consider the further expansion of MEELS to cover additional types of products to further energy saving. Would the Administration advise on the details, indicators and timetable of the above scheme?

Asked by: Hon SHIU Ka-fai (LegCo internal reference no.: 42)

Reply:

In accordance with the Energy Saving Plan for Hong Kong's Built Environment 2015~2025+, the Government plans to review the Mandatory Energy Efficiency Labelling Scheme (MEELS) twice by end of 2025 to include more types of products for further promotion of energy saving. The Environment Bureau (ENB) and the Electrical and Mechanical Services Department (EMSD) completed amendments to the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598) in 2018 to implement the third phase of MEELS. The additional categories of products covered under MEELS are televisions, electric storage water heaters, induction cookers, washing machines (with a rated washing capacity exceeding 7 kilograms (kg) but not exceeding 10 kg), and room air conditioners of the reverse cycle type (i.e. air conditioners with both heating and cooling functions).

The ENB and the EMSD are examining the energy consuming products that may be included in the fourth phase of MEELS. In selecting products for inclusion in MEELS, we will take into account various factors, including overseas experiences, international testing standards, estimated energy consumption of the products concerned, potential energy savings and stakeholders' views, etc. The relevant work is expected for completion within 2019. The EMSD will proceed to consult the trades and the general public afterwards.

- End -

CONTROLLING OFFICER'S REPLY

ENB186

(Question Serial No. 2018)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (700) General non-recurrent

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

As the revised estimated expenditure for the Electricity Charges Relief Scheme for 2018-19 is \$425 million, what are the Administration's estimated percentages of residential units and commercial and industrial institutions benefiting from the scheme respectively?

Asked by: Hon SHIU Ka-fai (LegCo internal reference no.: 43)

Reply:

To alleviate the impact of tariff increase on households during the transition to a low carbon future, the Government will grant an electricity charges relief of \$50 per month to each eligible residential electricity account from January 2019 to December 2023. Those who can benefit from the Electricity Charges Relief Scheme are all residential households.

- End -

CONTROLLING OFFICER'S REPLY

ENB187

(Question Serial No. 0262)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (2) Power
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

It is mentioned in Programme (2) that the Bureau continued to promote environmental protection and energy conservation in government buildings, and will continue to promote building energy efficiency and oversee the implementation of electricity saving projects for government buildings and facilities for the purpose of achieving the target of 5% saving in the electricity consumption of government buildings from 2015-16 to 2019-20. In this connection, please advise on the following:

- i. What specific measures has the Administration put in place to promote building energy efficiency (in government and private buildings) and environmental protection as well as energy conservation in buildings (government and private buildings)? How were these measures implemented in the past 5 years? What were the numbers of participating government buildings and private buildings?
- ii. To achieve the target of 5% saving in the electricity consumption of government buildings, the \$600 million reserved has been used to implement electricity saving projects. What are the details and timetables of such projects?
- iii. Besides targeting on existing old buildings, what environmental protection and energy conservation measures has the Administration put in place for new buildings? What were the numbers of new buildings that had adopted the Government's relevant measures in the past 5 years?

Asked by: Hon TSE Wai-chuen, Tony (LegCo internal reference no.: 4)

Reply:

Regarding parts (i) and (ii) of the question, the Government will tighten the statutory requirements on building energy efficiency, including reviewing the Building Energy Code (BEC) once every 3 years, to promote energy saving in buildings. The second review on BEC was completed with the new edition gazetted on 16 November 2018. The new edition will come into full force in mid-August this year. The 2018 edition of BEC can achieve a further energy saving of 18% compared with the 2012 edition. All government and private buildings under the Buildings Energy Efficiency Ordinance (Cap. 610) are required to comply with BEC.

To further encourage energy efficiency and conservation in private buildings, starting from the 2018/19 year of assessment, the capital expenditure incurred in purchasing renewable energy installations and building energy efficiency installations can enjoy a further tax incentive with full tax deduction in the first year of purchase instead of 5 years. Regarding building energy efficiency installations, the energy efficiency performance of the buildings concerned must be better than the statutory energy efficiency requirements and the buildings should achieve stipulated ratings under a recognised green building certification scheme (e.g. BEAM Plus). We will also continue to promote retro-commissioning and other energy saving measures to drive the development of green buildings.

The Government has set a target to reduce electricity consumption in government buildings by 5% from 2015-16 to 2019-20, using comparable operating conditions in 2013-14 as the base. In this connection, we have completed energy audits for about 340 major government buildings and earmarked some \$900 million to implement the energy saving projects progressively. In 2017-18 and 2018-19, the Architectural Services Department (ArchSD) and the Electrical and Mechanical Services Department were allocated a funding of some \$80 million and \$430 million respectively for conducting energy saving projects in various government departments, including the retrofitting of more energy-efficient lighting and control systems, light emitting diode lighting and floodlights, and more energy-efficient air-conditioning and management systems, etc. All energy saving projects will be completed progressively by 2019-20.

Regarding part (iii) of the question, to support the green building policy of the Government and to combat climate change, the ArchSD will follow the requirements of the Development Bureau Technical Circular No. 2/2015 and the Environment Bureau Circular Memorandum No. 3/2015 in its development of new government buildings. The ArchSD will adopt more environmental protection and energy conservation measures where technically feasible having regard to the actual circumstances of each project, such as the surrounding environment of a site.

In the past 5 years, the numbers of new government building projects completed by the ArchSD in accordance with the above technical circular and circular memorandum are as follows:

Year of completion	Number of new building projects
2014	7
2015	12
2016	10
2017	6
2018	9

- End -

CONTROLLING OFFICER'S REPLY

ENB188

(Question Serial No. 2402)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “overseeing the implementation of the various programmes and schemes under the post-2018 SCAs”:

1. Please set out by year the expenditures, staff establishment and ranks of officials for monitoring the two power companies’ use of assets (including but not limited to land assets) (for example, whether the assets were used for power generation business) in the past 5 years. Will there be any changes in 2019-20?
2. Currently, has the Environment Bureau or any other government department conducted site visits/spot checks on the use of assets of the two power companies? If yes, what are the details?
3. The Government indicated last year that it would study in detail the feasibility of letting out lands to the two power companies at nominal rent or on Short Term Tenancy (STT) in future. What are the manpower and ranks of officials responsible for the above study? What is the current progress of the study? When will the outcome of the study be announced?

Asked by: Hon WU Chi-wai (LegCo internal reference no.: 18)

Reply:

1. Monitoring the two power companies’ assets is part of the duties of the Financial Monitoring Division (FMD) of the Environment Bureau (ENB) and the Electricity Team of the Electrical and Mechanical Services Department (EMSD), and we do not have a relevant breakdown on the manpower and expenditure involved. As the posts of the Electricity Team are created under Head 42 – Electrical and Mechanical Services Department, the staff concerned are not under the establishment of the ENB. The staff establishment of FMD of this Bureau in the past 5 years and in 2019-20 is as follows:

Rank	Number
Assistant Director of Accounting Services	1
Senior Treasury Accountant	2
Treasury Accountant	2
Accounting Officer I	2
Personal Secretary I	1
Personal Secretary II	1
Total	9

2. Each year, when the ENB and the EMSD conduct auditing reviews and tariffs reviews for the two power companies, we will review various matters related to fixed assets. For instance, we will review the actual and estimated capital expenditures, and the progress and expenditures of approved projects, as well as ascertain the reasons for changes in fixed assets, etc. We will follow up on the matters as and when necessary, to ensure that the projects are in compliance with the approved development plans. For the enforcement of the Electricity Ordinance (Cap. 406), the EMSD will inspect the power supply systems of the two power companies regularly to ensure the safe and reliable operation of the systems.

In addition, as the assets of the two power companies are situated on private lands, the Lands Department and the various District Lands Offices will, upon receipt of complaints or referrals, deploy staff to conduct on-site inspections to determine whether the land lease conditions have been breached.

3. As for whether to let out lands to the power companies at nominal rent or on Short Term Tenancy, this involves complicated issues such as land policy for public utilities and government revenue, etc. The Government is still studying the feasibility and there is no conclusion at the moment. The study is mainly conducted by the FMD of the ENB. As this study is only part of the duties of the FMD, we do not have a relevant breakdown on the manpower involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB189

(Question Serial No. 0841)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (001) Salaries

Programme: (1) Director of Bureau's Office

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the salaries, allowances, job-related allowances and related expenses to be incurred by the Office of the Secretary for the Environment in 2019-20, please tabulate the following information -

(1) the (i) salaries; (ii) allowances; (iii) job-related allowances; (iv) Mandatory Provident Fund (MPF) contribution; and (v) Civil Service Provident Fund contribution of (a) the Secretary for the Environment (SEN); (b) the Under Secretary for the Environment (USEN); and (c) the Political Assistant (PA) to SEN in this financial year;

	(i) Salaries	(ii) Allowances	(iii) Job-related allowances	(iv) MPF contribution	(v) Civil Service Provident Fund contribution
(a) SEN					
(b) USEN					
(c) PA to SEN					

(2) the estimated expenditure on the allowances for (a) SEN; (b) USEN; and (c) PA to SEN in this financial year, including the following 5 categories of expenditures: (i) their medical and dental benefits; (ii) the medical and dental benefits of their spouses; (iii) their leave passage allowances; (iv) the leave passage allowances of their spouses; and (v) cars and chauffeur services;

	(i) Medical and dental benefits	(ii) Medical and dental benefits of spouses	(iii) Leave passage allowances	(iv) Leave passage allowances of spouses	(v) Cars and chauffeur services
(a) SEN					
(b) USEN					
(c) PA to SEN					

(3) the estimated expenditures on job-related allowances for (a) SEN; (b) USEN; and (c) PA to SEN in this financial year, including the following 3 categories of expenditures: (i) official entertainment; (ii) passage for duty visits; and (iii) security arrangements.

	(i) Official entertainment	(ii) Passage for duty visits	(iii) Security arrangements
(a) SEN			
(b) USEN			
(c) PA to SEN			

Asked by: Hon YEUNG Alvin (LegCo internal reference no.: 67)

Reply:

For budgetary purposes, we have reserved \$4.08 million, \$3.06 million and \$1.43 million respectively for the salaries of the Secretary for the Environment (SEN), the Under Secretary for the Environment (USEN) and the Political Assistant (PA) to SEN, as well as \$18,000 for Mandatory Provident Fund (MPF) contribution for each of them in 2019-20.

In 2019-20, we have earmarked about \$200,000 and \$600,000 respectively for expenditures on official entertainment and overseas duty visits for the Director of Bureau's Office. SEN, USEN and PA/SEN and their dependants are entitled to the medical and dental benefits applicable to civil servants and their dependants. SEN is provided with the free use at his discretion of a car and driver in Hong Kong, while the use of government cars by USEN and PA/SEN is governed by rules and regulations applicable to civil servants at comparable levels. In 2019-20, no provisions have been earmarked for other allowances and civil servant MPF contributions for SEN, USEN and PA/SEN and their spouses mentioned in the question.

- End -

CONTROLLING OFFICER'S REPLY**ENB190****(Question Serial No. 2039)**Head: (137) Government Secretariat : Environment BureauSubhead (No. & title): (-) Not SpecifiedProgramme: (2) PowerControlling Officer: Permanent Secretary for the Environment (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

(1) Please set out the numbers of light pollution complaints handled by the Bureau in the past 3 years, as well as the numbers of cases with the problems complained of successfully resolved. Please list the above numbers in 18 districts in tabular form.

(2) Regarding the promotion plans for the Charter on External Lighting and the Guidelines on Industry Best Practices for External Lighting Installations, what are the resources and expenditure to be allocated in 2019-20?

Asked by: Hon YUNG Hoi-yan (LegCo internal reference no.: 16)Reply:

(1) The numbers of complaints against external lighting received by the Environmental Protection Department (EPD) in the past 3 years are as follows:

District	2016	2017	2018
Central and Western	29	30	44
Wan Chai	54	51	41
Eastern	16	28	37
Southern	14	5	25
Yau Tsim Mong	56	53	56
Sham Shui Po	18	19	36
Kowloon City	24	39	33
Wong Tai Sin	1	8	5
Kwun Tong	12	10	16
Tsuen Wan	6	1	23
Tuen Mun	11	13	24
Yuen Long	25	17	28

District	2016	2017	2018
North	11	8	13
Tai Po	1	8	16
Sai Kung	4	27	32
Sha Tin	30	14	15
Kwai Tsing	18	20	28
Islands	5	4	5
Total	335	355	477

Upon receipt of complaints against light nuisance caused by external lighting, the EPD would relay the complainants' concerns and requests to the persons responsible for the lighting installations in question, and advise them to refer to the Guidelines on Industry Best Practices for External Lighting Installations (the Guidelines) and take appropriate measures to minimise the impact of the lighting installations on the residents in the vicinity. Most of the persons responsible for the lighting installations would, upon receipt of complaints, adopt measures to minimise light nuisance as far as practicable.

(2) The Environment Bureau (ENB) has been committed to promoting the Guidelines and the Charter on External Lighting (the Charter). For instance, the ENB held a total of 30 discussion sessions between May 2016 and February 2018 to appeal to Charter participants and members of the relevant professional bodies, trade associations and public organisations to comply with the Guidelines when planning for or managing their external lighting installations, and to adopt the good practices stated in the Guidelines. The content of discussion included operating hours for lighting installations, control on lighting, light nuisance control measures, energy efficiency measures, lighting installation project design planning and glare prevention.

Following the appointment of the Working Group on External Lighting (WGEL) in August 2018, the ENB has been working closely with the WGEL and liaising with the relevant trade associations and non-governmental organisations to invite owners or responsible persons of external lighting installations to sign the Charter. The ENB has also invited shopping malls, advertising companies, trade associations, professional bodies, etc. to encourage, through their network, other companies, business contacts and partners, clients, etc. to sign up their premises with external lighting installations to the Charter. The ENB will continue with the above work.

In addition, the ENB has published a list of participants on the Charter's website and has distributed labels and certificates to participants for display at their properties/shops to show that they have signed the Charter, as well as to raise public awareness of the Charter. We plan to hold an award ceremony later this year to commend participants who have fulfilled the switch-off pledge.

The above work is undertaken by the existing staff of the ENB. As the staff members concerned are also responsible for other duties, we do not have a separate breakdown. As for other promotion costs and expenditures on the events, the estimated expenditure for 2019-20 is \$1.4 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB191

(Question Serial No. 4714)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Would the Government advise on the respective numbers of plastic refuse bags used by the Government and contractors in managing country parks and the related expenditure in 2018-19, as well as the respective estimated number of refuse bags to be used and the related expenditure in 2019-20? What were the quantities of leaf and tree litter collected within country parks and disposed of at landfills over the past year?

Asked by: Hon CHAN Chi-chuen (LegCo internal reference no.: 226)

Reply:

The refuse collected in country parks is mostly dirty wastes such as tissues, containers or packaging bags containing leftovers or drink, and food residue, etc. The Agriculture, Fisheries and Conservation Department (AFCD) or its contractors normally lay litter containers with plastic refuse bags to facilitate the collection and transportation of wastes to the appropriate location for handling.

In managing country parks, the number of plastic refuse bags used in 2018-19 by AFCD is about 121 000, while the number of plastic refuse bags used by AFCD's contractors is about 306 000. It is estimated that the number of plastic refuse bags used by AFCD and that by AFCD's contractors for such purposes in 2019-20 will be similar to that of last year. The estimated expenditures of AFCD on plastic refuse bags in 2018-19 and 2019-20 are \$140,000 and \$130,000 respectively. Since the contractors are responsible for the provision of plastic refuse bags for their litter collection and related duties in country parks, AFCD does not have any information on their cost of refuse bags.

Most of the yard wastes (e.g. tree branches, leaves, etc.) generated from vegetation maintenance in country parks are stockpiled in nearby natural habitats to provide niches for wildlife. When they decompose, nutrients will be released back to the nature. Some tree logs are recycled to make furniture or decorative materials for the recreational facilities in country parks such as animated features, waymarks and benches, etc. In 2018, no yard

wastes arising from vegetation maintenance in country parks were disposed of at landfill sites.

- End -

CONTROLLING OFFICER'S REPLY**ENB192****(Question Serial No. 4715)**Head: (22) Agriculture, Fisheries and Conservation DepartmentSubhead (No. & title): (000) Operational expensesProgramme: (2) Nature Conservation and Country ParksControlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)Director of Bureau: Secretary for the EnvironmentQuestion:

What was the overall abundance of Chinese white dolphins (CWDs) in the 4 waters where they were mainly sighted, namely Southwest Lantau, West Lantau, Northwest Lantau and Northeast Lantau over the past 2 years? Has the Government assessed whether the reclamation project carried out for the construction of the Airport's third runway has affected and led to a decrease in the abundance of CWDs? What is the effectiveness of setting up the Brothers Marine Park? Besides, what is the present progress of designation of the proposed marine parks at Southwest Lantau and Soko Islands respectively?

Asked by: Hon CHAN Chi-chuen (LegCo internal reference no.: 227)Reply:

The estimated abundance of Chinese white dolphins (CWDs) in Southwest Lantau, West Lantau, Northwest Lantau and Northeast Lantau over the past 2 years is tabulated as follows:

Calendar year	Abundance				
	Southwest Lantau	West Lantau	Northwest Lantau	Northeast Lantau	Total
2017	10	16	21	0	47
2018	(The data is being analysed and is not available yet)				

Under the proposed Expansion of the Hong Kong International Airport into a Three-Runway System project, the project proponent is required to carry out a comprehensive environmental monitoring and audit (EM&A) programme which includes systematic surveys on CWDs in Southwest Lantau, West Lantau, Northwest Lantau and Northeast Lantau waters. Action and limit levels and an event action plan for CWDs have also been devised to audit the environmental performance of the project. The monitoring results of the EM&A programme so far did not exceed the action or limit levels, nor did it

trigger the event action plan for CWDs. There was thus no indication that the project has caused a decline in dolphin abundance.

The management measures implemented at The Brothers Marine Park (BMP), including restrictions on vessel speed, control of fishing activities and regulation of recreational activities, would help enhance fisheries resources and improve the habitat of marine life (including CWDs). A passive acoustic monitoring initiated since 2017 on the spatial and temporal patterns of CWD occurrence in BMP has confirmed that although the dolphins were seldom sighted in BMP during the daytime, they did regularly occur there at night, albeit at a low level, probably attributed to the effects of construction activities. It is expected that the dolphins will return to their previous occurrence localities, such as the waters around The Brothers Islands, once the short-term disturbance associated with the construction activities is over.

Regarding the proposed Southwest Lantau Marine Park (SWLMP), the Government announced by notice in the Gazette on 15 March 2019 that the Country and Marine Parks Authority (the Authority) has deposited copies of the approved map, certified as true copies of the original by the Authority, of SWLMP in the Land Registry, the Marine Department headquarters and the Agriculture, Fisheries and Conservation Department headquarters. The Government's target is to designate SWLMP within 2019. In addition, the Government proposes to combine the proposed Soko Islands Marine Park and the proposed marine park for the Integrated Waste Management Facilities Phase 1 into a single marine park of approximately 2 000 hectares, namely the South Lantau Marine Park (SLMP), to allow more effective management and operation of the marine park in the future. We aim to designate the proposed SLMP by 2020.

- End -

CONTROLLING OFFICER'S REPLY

ENB193

(Question Serial No. 3460)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the issue of local wild pigs over the past 3 years, would the Government inform this Committee on the following:

- (a) What were the numbers of complaints received on the appearance of or nuisance caused by wild pigs each year?
- (b) Was there any report received on wild pigs damaging public property and injuring people?
- (c) What were the numbers and expenditures involved in the neutering treatment under the contraception and relocation pilot programme?
- (d) What were the numbers of prosecutions instituted against members of the public feeding wild pigs?
- (e) What measures are currently put in place to control wild pigs?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 50)

Reply:

- (a) and (b) The number of complaints and injury reports related to wild pigs received by the Agriculture, Fisheries and Conservation Department (AFCD) over the past 3 years is tabulated below:

Financial year	Number of reports on the appearance of or nuisance caused by wild pigs (Number of injury reports)
2016-17	643 (2)
2017-18	787 (4)
2018-19 (as of January 2019)	819 (8)

AFCD does not have the breakdown of cases of vandalism caused by wild pigs.

- (c) AFCD tried to implement the pilot Capture and Contraception/Relocation Programme (CCRP) to handle the nuisance caused by wild pigs in urban areas since late 2017. The number of wild pigs captured, administered with contraceptive vaccine, surgically sterilised and/or relocated to remote countryside under the CCRP over the past 2 years (as of February 2019) is tabulated below:

Financial year	Number of wild pigs			
	Captured	Administered with contraceptive vaccine	Surgically sterilised	Relocated to remote countryside
2017-18	51	14	0	40
2018-19 (as of February 2019)	104	41	15	71

AFCD's expenditure on the implementation of CCRP for wild pigs over the past 2 years is tabulated below:

Financial year	Expenditure (\$ million)
2017-18	3.8
2018-19 (revised estimate)	6.4

- (d) Kam Shan, Lion Rock and Shing Mun Country Parks, part of Tai Mo Shan Country Park, Tai Po Kau Nature Reserve, a section of Tai Po Road along Caldecott Road and Piper's Hill section of Tai Po Road are specified places under the Wild Animals Protection Ordinance (Cap. 170) at which the feeding of any wild animals are prohibited (feeding ban area). The number of prosecutions against illegal feeding of wild animals (including wild pigs) by members of the public over the past 3 years is tabulated below:

Financial year	2016-17	2017-18	2018-19 (as of February 2019)
Number of prosecutions against illegal feeding of wild animals (including wild pigs)	74	40	20

- (e) In order to alleviate the nuisance caused by wild pigs in residential areas more effectively, AFCD has conducted a comprehensive review on the strategy for the management of wild pigs and taken measures in a multi-pronged approach. Such measures include managing wild pig nuisance, reducing food attraction for wild pigs, educating the public to stop feeding wild animals as well as enhancing public awareness towards wild pigs. AFCD will also establish an advisory group comprising experts from various fields to advise on the management of wild pigs. Details are set out in Legislative Council Paper No. CB(1)487/18-19(05).

- End -

CONTROLLING OFFICER'S REPLY

ENB194

(Question Serial No. 5079)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (-) Not Specified

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

- (a) What were the expenditures on the promotion of organic cultivation and intensive greenhouse production incurred by the Agriculture, Fisheries and Conservation Department (AFCD) over the past 5 years, as well as the estimated expenditure on the same aspects in 2019-20?
- (b) Please advise on the details of the provision for the Biodiversity Education Centre in Hong Kong in 2019-20.
- (c) Please advise on the expenditure on organic fertilisers among the total expenditure on fertilisers involved in seedling production in the 2019-20 Estimates.
- (d) Please advise on AFCD's expenditures involved in the promotion of public education and publicity on nature conservation over the past 5 years, as well as the estimated expenditure on the same aspects in 2019-20.
- (e) What were AFCD's expenditures involved in the management, maintenance and improvement of facilities in country parks, special areas, marine parks and marine reserves over the past 5 years, as well as the estimated expenditure on the same aspects in 2019-20?
- (f) Over the past 5 years, what were the expenditures incurred by AFCD on collecting refuse in country parks? What was the total volume of refuse collected by AFCD? What were the numbers of prosecutions related to littering in country parks initiated by AFCD? What is AFCD's estimated expenditure on education and publicity on protection of country parks in 2019-20 and its details?
- (g) What were AFCD's specific expenditures involved in the study of country park extension in Hong Kong over the past 5 years?

- (h) What is AFCD's specific expenditure involved in the study of country park extension in Hong Kong in 2019-20?
- (i) Please advise on the AFCD's expenditures involved in the management of stray animals and the promotion of animal welfare over the past 5 years, as well as the estimated expenditure on the same aspects in 2019-20.
- (j) Please set out in detail the complaints on wild pigs received and the numbers of wild pigs caught by the Government each year over the past 5 years.
- (k) Please set out in detail the numbers of cattle being relocated to new sites from their original habitat by the Government each year over the past 5 years.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 114)

Reply:

- (a) The expenditure of the Agriculture, Fisheries and Conservation Department (AFCD) on the promotion of organic cultivation and intensive greenhouse production over the past 5 years and the estimated expenditure in this respect in 2019-20 is tabulated below.

Financial year	Organic cultivation (\$ million)	Intensive greenhouse production (\$ million)
2014-15	5.6	4.9
2015-16	5.8	4.9
2016-17	6.4	7.1
2017-18	7.0	7.4
2018-19 (revised estimate)	9.1	7.9
2019-20 (estimate)	9.1	7.9

- (b) In 2019-20, AFCD has earmarked \$4.4 million for the management and operation of the Woodside Biodiversity Education Centre. This includes expenditure on educational programmes, cleansing, security, building maintenance and staff cost.
- (c) The provision earmarked for the purchase of fertilisers for seedling production in 2019-20 is \$50,600, of which \$30,000 will be used on organic fertilisers.
- (d) AFCD's expenditure on the promotion of public education and publicity on nature conservation over the past 5 years and the estimated expenditure in this respect in 2019-20 is tabulated below.

Financial year	Expenditure (\$ million)
2014-15	43
2015-16	41

Financial year	Expenditure (\$ million)
2016-17	50
2017-18	68
2018-19 (revised estimate)	72
2019-20 (estimate)	71

- (e) AFCD's expenditure on the management, maintenance and improvement of facilities in country parks, special areas, marine parks and marine reserve over the past 5 years and the estimated expenditure in this respect in 2019-20 is tabulated below.

Financial year	Expenditure (\$ million)
2014-15	174
2015-16	178
2016-17	194
2017-18	185
2018-19 (revised estimate)	219
2019-20 (estimate)	226

- (f) AFCD's expenditure on keeping country parks clean and the volume of refuse collected in country parks by AFCD over the 5 years are tabulated below.

Financial year	Expenditure (\$ million)	Volume of refuse collected in country parks (tonnes)
2014-15	46	3 800
2015-16	54	3 600
2016-17	48	3 500
2017-18	48	3 200
2018-19 (revised estimate)	50	3 000

The number of prosecutions related to littering under the Country Parks and Special Areas Regulations (Cap. 208A) over the past 5 years is tabulated below.

Calendar year	Number of prosecutions
2014	126
2015	135
2016	61
2017	62
2018	165

In 2019-20, AFCD will conduct a series of education and publicity programmes on protection and promotion of country parks for students and the general public. These public engagement programmes include school visits, eco-tours,

guided tours at visitor centres and education centres, thematic exhibitions, educational workshops, trail maintenance workshops, tree planting days, volunteer scheme, etc. A provision of \$24 million has been earmarked in 2019-20 for work in this area.

- (g) and (h) The assessment on the suitability of sites for country park extension forms part of AFCD's work in the planning and management of country parks. There is no separate breakdown on the manpower and expenditure involved.
- (i) AFCD's expenditure on the management of stray animals and the promotion of animal welfare over the past 5 years and the estimated expenditure in this respect in 2019-20 is tabulated below.

Financial year	Expenditure (\$ million)
2014-15	52.1
2015-16	50.5
2016-17	53.7
2017-18	60.3
2018-19 (revised estimate)	68.8
2019-20 (estimate)	66.6

- (j) The number of complaints on wild pigs received and the number of wild pigs caught by the Government over the past 5 years are tabulated below.

Financial year	Number of reported cases of wild pig appearance/nuisance	Number of wild pigs caught (head)
2014-15	396	13
2015-16	510	37
2016-17	643	62
2017-18	787	142
2018-19 (as of January 2019)	819	165

- (k) The number of cattle captured and relocated/returned over the past 5 years is tabulated below.

Calendar year	Number of cattle captured[^] (head)	Number of cattle relocated / returned[^] (head)
2014	94	60
2015	88	70
2016	114	69
2017	105	72
2018	128	80

[^] The figures include repeated capture and relocation/return of the same cattle.

- End -

CONTROLLING OFFICER'S REPLY

ENB195

(Question Serial No. 6286)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding strengthening the control of trade in endangered species:

- (a) With the passage of the Protection of Endangered Species of Animals and Plants (Amendment) Bill 2017 by the Legislative Council last year, the implementation of the Ordinance is now at the second stage, under which the import and re-export of pre-Convention (i.e. the Convention on the International Trade in Endangered Species of Wild Fauna and Flora) ivory (except antique ivory) have been banned and the possession of pre-Convention ivory (except antique ivory) for commercial purposes in the local market is subject to licensing control. In this connection, what were the details of the implementation of Steps 1 and 2 of the Ordinance in the past year? Please provide relevant law enforcement data, including the imported and exported pre-Convention and post-Convention worked ivory seized and the number of licences issued for the commercial possession of pre-Convention ivory, since the implementation of the Ordinance.
- (b) Regarding the licensing control of international trade in endangered species and curbing of illegal trade in endangered species in Hong Kong, please give details of the expenditures and manpower involved over the past 3 years and the forthcoming year.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 335)

Reply:

- (a) The Legislative Council enacted the Protection of Endangered Species of Animals and Plants (Amendment) Ordinance 2018 (the Amendment Ordinance) on 31 January 2018. The Amendment Ordinance took effect on 1 May 2018. Starting from 1 August 2018, all import and export of ivory (save for antique ivory) for commercial

purposes have been banned. A licence to possess is required for keeping pre-Convention ivory¹⁰ for commercial purposes. Agriculture, Fisheries and Conservation Department (AFCD) will scrutinise the applications and inspect the commercial stocks of pre-Convention ivory by recording weight, taking photographs and putting on tamper-proof hologram stickers. In addition, AFCD has also implemented a series of measures that aimed at curbing smuggling and strengthening the control of local trade in ivory. The measures included enhancing inter-departmental collaboration and stepping up joint operations and intelligence exchange with the Customs and Excise Department and overseas law enforcement agencies such as Interpol; deploying sniffer dogs to detect ivory at import and export control points to assist detecting and preventing smuggling of ivory; and using hi-tech radiocarbon dating analysis to determine the age and hence the legality of ivory.

On the other hand, AFCD has carried out a series of publicity and education activities to publicise the phase-out plan of the local ivory trade and the new penalty regime among the general public, travellers and traders. These include issuing circular letters, press releases and Facebook posts; distributing handbills and displaying posters at various import and export control points; broadcasting TV and radio announcements of public interest on cross-boundary coaches and YouTube Channel; as well as conducting education visits to licensed ivory shops and other art and craft shops. Internationally, AFCD has also notified the World Trade Organization and all Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Between May and December 2018, a total of 336 kg of ivory was seized from illegal import/export, amongst which about 6.5 kg was pre-Convention ivory. 12 licences have been issued for the possession of about 2.6 tonnes of pre-Convention ivory for commercial use as at the end of 2018.

- (b) The expenditure and manpower involved in carrying out licensing control of international trade in endangered species, including elephant ivory and curbing of illegal trade in endangered species in Hong Kong over the past 3 years and the coming year are tabulated below.

Financial year	2016-17	2017-18	2018-19 (revised estimate)	2019-20 (estimate)
Expenditure (\$ million)	36.2	42.5	47.5	47.5
Manpower (number of staff)	51	55	57	57

- End -

¹⁰ Ivory that was acquired before the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) started to apply to elephants.

CONTROLLING OFFICER'S REPLY

ENB196

(Question Serial No. 6287)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the management of country parks, please advise on the following:

- (a) What were the expenditures of the Agriculture, Fisheries and Conservation Department (AFCD) on the management, maintenance and improvement of facilities in country parks, special areas, marine parks and the marine reserve over the past 5 years, as well as AFCD's estimated expenditure in the same aspects in 2019-20?
- (b) Over the past 5 years, what were the expenditures incurred by AFCD on collecting refuse in country parks? What was the total volume of refuse collected by AFCD? What were the numbers of prosecutions initiated by AFCD for littering in country parks? What is the estimated expenditure to be incurred by AFCD in 2019-20 for education and publicity on protection of country parks and its details? Please advise on AFCD's expenditures involved in the promotion of public education and publicity on nature conservation over the past 5 years, as well as AFCD's estimated expenditure in the same aspects in 2019-20.
- (c) Please advise on AFCD's expenditures involved in the promotion of public education and publicity on nature conservation over the past 5 years, as well as AFCD's estimated expenditure in the same aspects in 2019-20.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 336)

Reply:

- (a) The expenditure of the Agriculture, Fisheries and Conservation Department (AFCD) on the management, maintenance and improvement of facilities in country parks, special areas, marine parks and marine reserve over the past 5 years and the estimated expenditure in 2019-20 is tabulated below.

Financial year	Expenditure (\$ million)
2014-15	174
2015-16	178
2016-17	194
2017-18	185
2018-19 (revised estimate)	219
2019-20 (estimate)	226

(b) and (c) AFCD's expenditure on keeping country parks clean and the volume of refuse collected in country parks over the 5 years are tabulated below.

Financial year	Expenditure (\$ million)	Volume of refuse collected in country parks (tonnes)
2014-15	46	3 800
2015-16	54	3 600
2016-17	48	3 500
2017-18	48	3 200
2018-19 (revised estimate)	50	3 000

Over the past 5 years, the number of prosecutions related to littering under the Country Parks and Special Areas Regulations (Cap. 208A) is tabulated below.

Calendar year	Number of prosecutions
2014	126
2015	135
2016	61
2017	62
2018	165

In 2019-20, AFCD will conduct a series of education and publicity programmes on protection and promotion of country parks for students and the general public. These public engagement programmes include school visits, eco-tours, guided tours at visitor centres and education centres, thematic exhibitions, educational workshops, trail maintenance workshops, tree planting days, volunteer scheme, etc. A provision of \$24 million has been earmarked in 2019-20 for work in this area.

The expenditure on education and publicity on nature conservation over the past 5 years and the provision earmarked for 2019-20 is tabulated below.

Financial year	Expenditure (\$ million)
2014-15	43
2015-16	41
2016-17	50
2017-18	68
2018-19 (revised estimate)	72
2019-20 (estimate)	71

- End -

CONTROLLING OFFICER'S REPLY

ENB197

(Question Serial No. 6296)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the illegal felling or plucking of endangered trees and plants in the Hong Kong countryside, what were the numbers of cases detected by the Government over the past 3 years?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 345)

Reply:

The number of cases involving illegal felling or plucking of endangered trees and plants in the countryside over the past 3 years is tabulated below.

Calendar year	Number of cases
2016	54
2017	53
2018	41

- End -

CONTROLLING OFFICER'S REPLY**ENB198****(Question Serial No. 4821)**Head: (22) Agriculture, Fisheries and Conservation DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) Nature Conservation and Country ParksControlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)Director of Bureau: Secretary for the EnvironmentQuestion:

It is stated in Programme 2 Nature Conservation and Country Parks that “the feasibility of the incorporation of selected country park enclaves into country parks will be explored”. In this regard, please inform this Committee of the following:

Please tabulate the details of the enclaves being explored by the Government currently, including (i) the locations of the enclaves, (ii) the respective country parks that the enclaves to be incorporated into, (iii) the sizes of the enclaves (hectare), (iv) the work progress, (v) the schedule of the work.

(i) Location of enclave	(ii) Respective country park that the enclave to be incorporated into	(iii) Size of the enclave (hectare)	(iv) Work progress	(v) Schedule of the work

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1066)Reply:

Currently, there are 19 enclaves that have not been incorporated into country park areas or not covered by any statutory plans. Information of these enclaves is tabulated below:

Item	Site Name	Adjoining Country Parks	Area (Ha)
1	Site near Chuen Lung	Tai Mo Shan Country Park	10
2	Site near Tso Kung Tam		9
3	Tsing Fai Tong	Tai Lam Country Park	26
4	Sheung Tong		10

Item	Site Name	Adjoining Country Parks	Area (Ha)
5	Sheung Fa Shan		26
6	Ping Shan Chai	Pat Sin Leng Country Park	15
7	Hung Shek Mun Tsuen	Plover Cove Country Park	10
8	Lai Tau Shek		10
9	Tei Tong Tsai	Lantau South Country Park	15
10	Tsin Yue Wan		4
11	Yi Tung Shan		7
12	Man Cheung Po		2
13	Site near Peaked Hill		5
14	Tung Sam Kei	Sai Kung East and Sai Kung West Country Parks	4
15	Nam Shan Tung		5
16	Lai Chi Chong		16
17	Tai Hom		5
18	Wong Chuk Long		4
19	Site near Wong Mau Kok		3

The Agriculture, Fisheries and Conservation Department will continue to assess whether these enclaves are suitable for incorporation into country parks in accordance with the established principles and criteria, and put forward incorporation proposals for the suitable enclaves in accordance with the statutory procedures stipulated in the Country Parks Ordinance (Cap. 208).

- End -

CONTROLLING OFFICER'S REPLY

ENB199

(Question Serial No. 4845)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

In view of the frequent illegal felling of Incense Trees in Hong Kong in recent years, does the Agriculture, Fisheries and Conservation Department have any plan to conduct a territory-wide survey on Incense Trees? What measures will be taken to prevent the illegal tree-felling from deteriorating? What is the estimated expenditure on the work in the coming year?

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1521)

Reply:

Incense Tree is a native tree species commonly found in mature woodlands behind rural villages and lowland forests in Hong Kong. The Agriculture, Fisheries and Conservation Department (AFCD) has been conducting surveys and studies over the years to gather information on the distribution of local plant species, including Incense Trees. However, there is practical difficulty in conducting a specific territory-wide population survey on this species due to its widespread distribution and difficult access.

To strengthen the protection of Incense Trees against illegal felling, AFCD has implemented a species-specific action plan for Incense Trees which covers a series of measures. Such measures include:

- (i) establishment of a special task force to conduct targeted patrol of sites at which important populations of Incense Trees are present, in addition to regular patrols in country parks and special areas;
- (ii) working closely with the Hong Kong Police Force in gathering and exchanging intelligence, conducting joint law enforcement operations at black spots and investigation of illegal tree felling cases, and enhancing the awareness and vigilance

of the public about such offences through social media channels as well as various education and publicity programmes;

- (iii) enhancing liaison and cooperation with concern groups and villagers living near Incense Trees for intelligence gathering and reporting of any illegal felling activities;
- (iv) conducting a pilot scheme using Infrared Sensor Camera Traps to monitor illegal felling of Incense Trees at several strategic locations;
- (v) installing tree guards to prevent felling or vandalism of important individuals of Incense Trees;
- (vi) dressing the wounds of damaged trees with anti-fungal paint to suppress the formation of agarwood in order to discourage illegal harvesting;
- (vii) organising training sessions to help frontline staff of the Police and the Customs and Excise Department to identify Incense Trees/agarwood and detect illegal activities;
- (viii) launching a pilot scheme to deploy quarantine detector dogs to facilitate detection of agarwood smuggling at land boundary control points;
- (ix) stepping up the extensive planting of Incense Trees in country parks. Since 2009, about 10 000 seedlings of Incense Trees have been produced and planted every year to assist in the re-stocking of this species in Hong Kong; and
- (x) supporting various research studies and activities to conserve this native species and enhance public awareness in this aspect.

In addition, long-term monitoring of important populations of Incense Trees is in place to monitor its conservation status and check on the effectiveness of the protection measures. The resources involved in implementing the above measures were absorbed in the allocation for nature conservation and management of country parks, hence no separate breakdown on the expenditure involved is available. However, AFCD has made an additional provision of \$6.3 million in 2019-20 to enhance the support for the above measures.

- End -

CONTROLLING OFFICER'S REPLY

ENB200

(Question Serial No. 4849)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

At present, it is very difficult for the disabled to use the country park facilities as most of the paths and facilities are not disabled-friendly. Please provide the following information:

- (a) Please set out in detail the existing barrier-free status of country parks, including the names of the country parks, the districts in which they are located, the barrier-free facilities available, country trails, and names of the dams.
- (b) Please set out in detail the country parks where barrier-free facilities are not yet available.
- (c) Is there any government policy to facilitate the development of barrier-free country parks for persons with disabilities and those in need?

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1525)

Reply:

- (a) Barrier-free facilities in the country parks and their respective locations are listed at the **Annex**.
- (b) Barrier-free facilities are not yet available in the Lam Tsuen Country Park, Plover Cove (Extension) Country Park, Lantau North Country Park, Lantau North (Extension) Country Park, Kiu Tsui Country Park and Shek O Country Park.
- (c) In order to enhance the accessibility of county park facilities and services for persons with disabilities, the Agriculture, Fisheries and Conservation Department (AFCD) has implemented various measures including upgrading or providing barrier-free facilities in existing or new premises, as well as undertaking retrofitting programmes (such as the construction of ramps and installation of handrails along the footpaths to accessible

toilets, etc.). Officers in charge of the country park venues and facilities are also appointed as Access Officers by AFCD to facilitate the implementation of accessibility measures and provision of services for persons with disabilities. In addition, AFCD has commissioned a consultancy study on enhancing the recreation and education potential of country parks for public enjoyment. In the ongoing public consultation, we are seeking the public's views on various proposals (including the suggestion of enhancing the physically handicapped and able-bodied sites and facilities) to increase the accessibility of country parks for persons with disabilities.

- End -

Barrier free facilities/Facilities with barrier free design	Country parks/Other areas	Site/Venue/Location
Barbecue sites	Sai Kung West Country Park	Pak Tam Chung Physically Handicapped and Able-Bodied (P.H.A.B.) Site Tai Mong Tsai No. 4 Barbecue Site
	Sai Kung East Country Park	Wong Shek No. 1 Barbecue Site
	Clear Water Bay Country Park	Tai Hang Tun Barbecue Site
	Ma On Shan Country Park	Ma On Shan Barbecue Site
		Nai Chung Barbecue Site
	Shing Mun Country Park	Shing Mun No. 4 Barbecue Site
		Shing Mun No. 5 Barbecue Site
	Tai Mo Shan Country Park	Rotary Barbecue Site
	Tai Lam Country Park	Shek Kong No. 2 Barbecue Site
		Shek Kong No. 3 Barbecue Site
		Shek Kong No. 6 Barbecue Site
		Shek Kong No. 10 Barbecue Site
		Shek Kong No. 11 Barbecue Site
		Chuen Lung No. 2 Barbecue Site
		Tai Tong No. 1 Barbecue Site Sham Tseng Barbecue Site
Pat Sin Leng Country Park	Hok Tau No. 6 Barbecue Site	
Aberdeen Country Park	Aberdeen Physically Handicapped and Able-Bodied (P.H.A.B.) Site	
Tai Tam Country Park	Tai Tam No. 2 Barbecue Site	
	Tai Tam Tuk No. 4 Barbecue Site	
Picnic sites	Tsiu Hang Special Area	Lions Nature Education Centre
	Shing Mun Country Park	Shing Mun No. 6 Picnic Site
		Shing Mun No. 10 Picnic Site
Visitor centres	Sai Kung West Country Park	Sai Kung Country Park Visitor Centre
	Clear Water Bay Country Park	Clear Water Bay Country Park Visitor Centre
	Tai Mo Shan Country Park	Tai Mo Shan Country Park Visitor Centre
	Aberdeen Country Park	Aberdeen Tree Centre
	Tsiu Hang Special Area	Lions Nature Education Centre
	Hong Kong Wetland Park	Hong Kong Wetland Park Visitor Centre
	Other Areas Outside Country Park	Woodside Biodiversity Education Centre
Ngong Ping Nature Centre		
Hong Kong Global Geopark Volcano Discovery Centre		
Toilets	A total of 52 at various locations within Country Parks and Special Areas	Hong Kong Wetland Park Other locations of the toilets could be downloaded from AFCD's website: http://www.afcd.gov.hk/english/country/cou_vis/cou_vis_rec/cou_vis_dis.html

CONTROLLING OFFICER'S REPLY

ENB201

(Question Serial No. 4850)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

What policy does the Government have in place to facilitate drivers with disabilities to access the country park areas with a view to resolving the problem of lack of public transport for them to access the park areas? Please set out the application procedures for permits to access country parks for drivers with disabilities.

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1526)

Reply:

In order to enhance the accessibility of country park facilities and services for persons with disabilities, the Agriculture, Fisheries and Conservation Department (AFCD) has implemented various measures including upgrading or providing barrier-free facilities in existing or new premises, as well as undertaking retrofitting programmes (such as construction of ramps and installation of hand railings along the footpaths to accessible toilets, etc). Most of these barrier-free facilities/premises are either directly accessible by taxi and point-to-point rebus or connected to nearby car parks by accessible ramps with hand railings. In some places (such as the Lions Nature Education Centre in the Tsiu Hang Special Area and the Hong Kong Wetland Park), designated parking spaces for persons with disabilities are provided.

According to the Country Parks and Special Areas Regulations (Cap. 208A), it is required to apply for a permit in advance for bringing a vehicle into a country park or special area. The relevant application procedures and guidelines are published on AFCD's website (www.afcd.gov.hk). Applications will be assessed against the established guidelines and considered on their individual merits.

- End -

CONTROLLING OFFICER'S REPLY**ENB202****(Question Serial No. 4852)**Head: (22) Agriculture, Fisheries and Conservation DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) Nature Conservation and Country ParksControlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide the number of toilets in various country parks over the territory and the total number as well as the number and proportion of barrier-free toilets installed.

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1528)Reply:

There are 64 flushing toilets in country parks and special areas of which 52 of them (i.e. 81%) are provided with barrier-free cubicles. The distribution of flushing toilets in various country parks and special areas is set out below.

Country Parks/Special Areas	Number of flushing toilets	Number of flushing toilets with barrier-free cubicles
Aberdeen Country Park	1	1
Clear Water Bay Country Park	2	2
Kam Shan Country Park	1	1
Lantau North Country Park	1	1
Lantau South Country Park	1	1
Lion Rock Country Park	1	0
Lung Fu Shan Country Park	1	0
Ma On Shan Country Park	3	3
Pat Sin Leng Country Park	7	6
Plover Cove Country Park	2	2
Pok Fu Lam Country Park	1	0
Sai Kung East Country Park	5	2
Sai Kung West Country Park	8	7
Sai Kung West (Wan Tsai Extension) Country Park	2	2

Country Parks/Special Areas	Number of flushing toilets	Number of flushing toilets with barrier-free cubicles
Shing Mun Country Park	4	4
Tai Lam Country Park	5	5
Tai Mo Shan Country Park	2	2
Tai Tam Country Park	3	2
Tai Tam (Quarry Bay Extension) Country Park	2	2
Hong Kong Wetland Park (Special Area)	8	6
Tai Po Kau Nature Reserve (Special Area)	1	0
Tsiu Hang (Special Area)	3	3
Total	64	52

Besides flushing toilets, the Agriculture, Fisheries and Conservation Department has provided 121 hired portable toilets (of which 7 are barrier-free portable toilets) and 42 dry toilet pits at remote locations lacking supplies of water and electricity to meet the needs of country park visitors.

- End -

CONTROLLING OFFICER'S REPLY

ENB203

(Question Serial No. 7282)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Given the recent intrusion of wild pigs into urban areas, attacking passers-by, foraging for food and causing traffic disruption in various districts on Hong Kong Island, will AFCD allocate additional resources or introduce new measures to resolve this issue, such as strengthening the control and contraception of wild pigs?

Asked by: Hon CHEUNG Kwok-kwan (LegCo internal reference no.: 38)

Reply:

In order to control the nuisance caused by wild pigs in residential areas more effectively, the Agriculture, Fisheries and Conservation Department (AFCD) has conducted a comprehensive review on the strategy for the management of wild pigs and taken measures in a multi-pronged approach. Such measures include managing wild pig nuisance, reducing food attraction for wild pigs, educating the public to stop feeding wild animals as well as enhancing public awareness towards wild pigs. AFCD will also establish an advisory group comprising experts from various fields to advise on the management of wild pigs. Details are set out in Legislative Council Paper No. CB(1)487/18-19(05). AFCD has earmarked an additional provision of \$4 million and 20 staff for this area of work in 2019-20.

- End -

CONTROLLING OFFICER'S REPLY

ENB204

(Question Serial No. 3573)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the nuisances caused by wild monkeys to nearby residents or visitors, please advise on the following:

- (a) What were the manpower and expenditures involved in public education and promotion of the feeding ban over the past 3 years (2016-17 to 2018-19)?
- (b) What were the numbers of complaints received by the Department about nuisances of or attacks by wild monkeys over the past 3 years (2016-17 to 2018-19)?
- (c) What were the manpower and expenditures involved in the investigation and study on the control of wild monkeys, as well as the administration of contraceptive and neutering treatment to wild monkeys over the past 3 years (2016-17 to 2018-19)?
- (d) What are the manpower and estimated expenditure involved in the above work in 2019-20?
- (e) What are the present progress and details of the management plan for monkeys?

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 13)

Reply:

- (a) The expenditure incurred by the Agriculture, Fisheries and Conservation Department (AFCD) in public education and publicity for the prohibition of feeding wild animals such as monkeys and wild pigs over the past 3 year is as follows:

Financial year	Expenditure (\$ million)
2016-17	0.6
2017-18	2.2
2018-19 (revised estimate)	2.2

As the relevant work forms part of AFCD's work on handling the nuisance caused by wild animals (including monkeys, wild pigs, etc.), there is no separate breakdown on the manpower involved in the aforesaid work.

- (b) The information on monkey nuisance/attack received by AFCD over the past 3 years is tabulated below.

Financial year	2016-17	2017-18	2018-19
Number of complaints about monkey nuisance/attack	527	399	355 (as of January 2019)

- (c) AFCD's expenditure and manpower involved in handling monkey nuisance over the past 3 years are tabulated below.

Financial year	Expenditure (\$million)	Manpower
2016-17	4.2	12
2017-18	5.2	12
2018-19 (revised estimate)	5.6	12

In addition, AFCD's contractor (the Ocean Park Conservation Foundation) arranged regular neutering operations for monkeys in Kam Shan, Lion Rock and Shing Mun Country Parks, involving about 10 contractor's staff in each operation.

- (d) AFCD estimates that the manpower and expenditure involved in handling monkey nuisance and carrying out neutering operations for monkeys in 2019-20 will be comparable to those in 2018-19.
- (e) AFCD is highly concerned about the nuisance caused by monkeys in residential areas. Upon receiving relevant reports, AFCD will deploy staff to the scene as soon as possible to chase away or capture the monkeys, and offer advice and education leaflets to the concerned public or management offices after investigating the situation and causes of monkey occurrence. Moreover, AFCD will set up traps to capture the lingering monkeys in residential areas to reduce the persistent nuisance caused by them. AFCD would also contact other government departments to follow up the problems arising from monkey nuisance, such as environmental hygiene problems. If necessary, AFCD will arrange talks for the concerned residents or management offices on the handling of monkey nuisance and drawbacks of feeding monkeys and not handling refuse properly. Furthermore, AFCD has been carrying out contraceptive/neutering operations for monkeys in Kam Shan, Lion Rock and Shing Mun Country Parks since 2007. Regular surveys are also conducted to monitor changes in the monkey populations.

AFCD will start reviewing the work on the handling of monkey nuisance in 2019-20, and then consider, as appropriate, updating the management plan for handling nuisance caused by monkeys.

- End -

CONTROLLING OFFICER'S REPLY

ENB205

(Question Serial No. 4371)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding Incense Trees, the relevant questions are as follows:

- (a) Please set out in tabular form the numbers of cases related to the felling of Incense Trees and the smuggling of *Aquilaria* species (agarwood), the numbers of persons arrested and prosecutions, the ordinance(s) contravened, the maximum and minimum penalties, the total amount of fine, and the weights and numbers of Incense Trees or trees of the *Aquilaria* species (agarwood) involved, over the past 5 years.
- (b) The Government mentioned last year that the trial of using infrared sensor camera traps to monitor illegal felling of Incense Trees was still in progress and that it was extending the trial to cover more strategic locations. Please advise on the expenditure involved as well as the effectiveness of the trial.
- (c) Please advise on the details of the other initiatives on the conservation of Incense Trees as well as the expenditure and manpower involved in the coming year.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 65)

Reply:

- (a) Over the past 5 years, all criminal cases involving illegal felling of Incense Trees were handled by the Hong Kong Police Force (the Police) under the Theft Ordinance (Cap. 210), the Summary Offences Ordinance (Cap. 228) or the Crimes Ordinance (Cap. 200). The relevant statistics are tabulated below.

Calendar year	Number of			Penalty (imprisonment / months)		Estimated number of trees involved
	Cases	Persons arrested	Prosecutions	Maximum	Minimum	
2014	134	65	26	55	3	240
2015	120	16	5	35	30	249
2016	54	22	8	30	2	172
2017	53	9	1	30	30 [#]	102
2018	41	1	0	Not applicable [^]	Not applicable [^]	78

[#] There was only 1 convicted case in 2017.

[^] No prosecution was instituted in 2018.

Moreover, all species of *Aquilaria* including Incense Trees are listed in Appendix II to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Under the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586), all imports and exports of agarwood specimens must be accompanied with a valid CITES licence. Any person who plans to import and export agarwood specimens must hold the relevant licence. The numbers of illegal imports and exports of agarwood over the past 5 years are tabulated below.

Calendar year	Number of		Penalty		Quantity of seizure (kg)
	Cases	Prosecutions	Maximum	Minimum	
2014	29	2	Imprisonment of 10 months	Imprisonment of 10 months [^]	1 035
2015	13	1	A fine of \$40,000	A fine of \$40,000 [#]	184
2016	11	2	A fine of \$21,000	A fine of \$5,000	134
2017	12	4	Imprisonment of 6 weeks	Imprisonment of 3 weeks	414
2018	41	8	Imprisonment of 24 months	Imprisonment of 6 weeks [*]	244

[^] The penalties for the 2 cases of successful conviction were the same.

[#] There was only 1 case of successful conviction.

^{*} The case also involved the smuggling of 0.01 kg worked ivory.

- (b) The trial of using Infrared Sensor Camera Traps (ISCTs) to monitor illegal felling of Incense Trees is still in progress. In March 2018, after receiving signals from the ISCTs, the Police arranged a timely follow-up and caught a suspect red-handed for harvesting agarwood. The Agriculture, Fisheries and Conservation Department (AFCD) has extended the trial to cover more strategic locations and will review the effectiveness upon completion of the trial. An estimated expenditure of \$1.2 million was involved in the extended ISCT trial in 2018-19.

- (c) To strengthen the protection of Incense Trees against illegal felling, AFCD has implemented a species-specific action plan for Incense Trees which covers a series of measures (including the ISCT trial scheme as mentioned above). Such measures include:
- (i) establishment of a special task force to conduct targeted patrol of sites at which important populations of Incense Trees are present, in addition to regular patrols in country parks and special areas;
 - (ii) working closely with the Police in gathering and exchanging intelligence, conducting joint law-enforcement operations at black spots and investigation of illegal tree felling cases, and enhancing the awareness and vigilance of the public about such offences through social media as well as various education and publicity programmes;
 - (iii) enhancing liaison and cooperation with concern groups and villagers living near Incense Trees for intelligence gathering and reporting of any illegal felling activities;
 - (iv) installing tree guards to prevent felling or vandalism of important individuals of Incense Trees;
 - (v) dressing the wounds of damaged trees with anti-fungal paint to suppress the formation of agarwood in order to discourage illegal harvesting;
 - (vi) organising training sessions to help frontline staff of the Police and the Customs and Excise Department to identify Incense Trees/agarwood and detect illegal activities;
 - (vii) launching a pilot scheme to deploy quarantine detector dogs to facilitate detection of agarwood smuggling at land boundary control points;
 - (viii) stepping up the extensive planting of Incense Trees in country parks. Since 2009, about 10 000 seedlings of Incense Trees have been produced and planted every year to assist in the re-stocking of this species in Hong Kong; and
 - (ix) supporting various research studies and activities to conserve this native species and enhance public awareness in this aspect.

In addition, long-term monitoring of important populations of Incense Trees is in place to monitor its conservation status and check on the effectiveness of the protection measures. The resources involved in implementing the above measures were absorbed in the allocation for nature conservation and management of country parks, hence no separate breakdown on the expenditure involved is available. However, AFCD has made an additional provision of \$6.3 million in 2019-20 to enhance the support for the above measures.

- End -

CONTROLLING OFFICER'S REPLY

ENB206

(Question Serial No. 6126)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding venues under the management of the Agriculture, Fisheries and Conservation Department (AFCD), please provide the following information:

- (a) Please set out by the 18 districts and in tabular form the numbers of automated external defibrillators (AEDs) available in each district.
- (b) Please set out by the 18 districts and in tabular form the venues managed by AFCD without installation of AEDs and the reasons for that.
- (c) Please set out by the 18 districts and in tabular form the venues managed by AFCD with installation of AEDs and the numbers of staff working at such venues who have received training on the use of AEDs.

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 97)

Reply:

- (a) to (c) At present, 4 country park visitor centres and the Hong Kong Wetland Park are equipped with Automated External Defibrillators (AEDs). The number of staff who have received training on the use of AEDs and work in venues with AEDs is tabulated below.

District	Venues with AEDs	Number of	
		AEDs equipped	Staff with relevant training
Sai Kung	Sai Kung Country Park Visitor Centre, Lions Nature Education Centre, and Clear Water Bay Country Park Visitor Centre	3	15
Tsuen Wan	Tai Mo Shan Country Park Visitor Centre	1	9
Yuen Long	Hong Kong Wetland Park	2	4

Country park visitor centres which are not equipped with AEDs are tabulated below:

District	Venues not equipped with AEDs
Tsuen Wan	Shing Mun Country Park Visitor Centre
Eastern	Woodside Biodiversity Education Centre
Southern	Aberdeen Tree Centre
Islands	Ngong Ping Nature Centre

As most of the recreation sites in country parks are located in the countryside with no office and shelter, there is practical difficulty in providing AEDs at these venues. The Auxiliary Medical Service (AMS) deploys personnel for first aid coverage and ambulance services at some popular locations in country parks on all Sundays and public holidays. The first aid stations and ambulance services provided by AMS are equipped with AEDs and will provide assistance to visitors when necessary. The Agriculture, Fisheries and Conservation Department will closely monitor the usage of the recreation sites in country parks and review the need to enhance the facilities to meet visitors' needs from time to time.

- End -

CONTROLLING OFFICER'S REPLY

ENB207

(Question Serial No. 6320)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Would the Department set out the following information over the past 10 years:

- (a) The address, construction cost, size and number of cubicles of the public toilet with the lowest construction cost.
- (b) The address, construction cost, size and number of cubicles of the public toilet with the highest construction cost.
- (c) The average cost of constructing a public toilet.
- (d) The average cost of constructing a toilet cubicle.
- (e) The average cost of constructing each square metre of a public toilet.

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 53)

Reply:

- (a) and (b) Over the past 10 years, 2 new public toilets were constructed in country parks and the details are tabulated below:

Year of opening	Location	Construction cost (\$ million)	Number of cubicles	Area (m²)
2011	Pak Tam Chung (within Sai Kung West Country Park)	4.75	13	135
2017	East Dam of High Island Reservoir (within Sai Kung East Country Park)*	1.32	5	34
Total		6.07	18	169

* Due to the site constraints, this toilet is an assembled toilet modular without connection to public sewer or installation with a sewage treatment system. The sewage is temporarily stored in a holding tank and disposed of through desludging service.

- (c) The average cost of constructing a public toilet was \$3.04 million.
- (d) The average cost of constructing a toilet cubicle was \$0.34 million.
- (e) The average cost of constructing each square metre of a public toilet was \$40,000.

- End -

CONTROLLING OFFICER'S REPLY

ENB208

(Question Serial No. 6322)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Would the Department set out in tabular form the following information regarding the public toilets managed by the Department by the 18 districts:

- (a) the names and addresses of the public toilets;
- (b) the years of construction;
- (c) the years in which the last refurbishment works were conducted;
- (d) the construction costs;
- (e) the utilisation rates;
- (f) the cleaning frequencies (per day and per week);
- (g) the numbers of cleaning staff; and
- (h) the numbers of replenishment of toilet paper and liquid soap per week.

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 55)

Reply:

- (a) to (f) The requested information is tabulated below:

(a) Location ¹	(b) Year of construction	(c) Year of last refurbishment ²	(d) Construction cost ³ (\$ million)	(e) Utilisation rate ⁴	(f) Cleaning frequency (time per day/week)
North District					
Hok Tau Campsite (PSL/C/301) Flushing Toilet (PB942)	1986	2009	Information not available (N/A)	Moderate	4/28
Hok Tau Barbecue Site (PSL/B/308) Flushing Toilet (PB992)	1988	2009	N/A	Moderate	4/28
Lau Shui Heung (PSL/R/302) Flushing Toilet (PB997)	1989	2009	N/A	Moderate	4/28
Nam Chung (PSL/R/50B) Flushing Toilet (PB1084)	1997	N/A	1.2	Low	4/28
Bride's Pool Road Barbecue Site (PC/B/601) Flushing Toilet (PB938)	1986	2017	N/A	High	4/28
Bride's Pool Road Barbecue Site (PC/B/002) Flushing Toilet (PB998)	1989	2016	N/A	High	4/28
Tai Po District					
Tai Mei Tuk Barbecue Site (PC/B/001) Flushing Toilet (PB711)	1979	2014	N/A	High	4/28
Chung Pui Barbecue Site (PSL/B/012) Flushing Toilet (PB870)	1982	2016	N/A	High	4/28
Tai Mei Tuk Ranger Office Flushing Toilet (PB653)	1976	N/A	N/A	Low	4/28
Tai Po Kau Nature Reserve Flushing Toilet (PB940)	1986	N/A	N/A	High	4/28
Nai Chung Barbecue Site (MOS/B105) Flushing Toilet (PB1076)	1996	N/A	1.0	Moderate	4/28
Sai Sha Road Barbecue Site (SKW/B/010) Flushing Toilet (PB979)	1987	N/A	N/A	High	4/28
Wan Tsai South Campsite (SKW/C/309) Flushing Toilet (PB1114)	1999	N/A	N/A	High	4/28
Wan Tsai West Campsite (SKW/C/308) Flushing Toilet (PB1110)	1999	N/A	N/A	High	4/28
Hau Tong Kai Campsite (SKW/C/307) Flushing Toilet (PB1034)	1982	N/A	N/A	Moderate	2/14
Tai Tan Barbecue Site (SKW/B/304) Flushing Toilet (PB1020)	1992	N/A	N/A	High	4/28
Wong Shek Barbecue Site (SKW/B/301) Flushing Toilet (PB980)	1987	N/A	N/A	High	4/28

(a) Location ¹	(b) Year of construction	(c) Year of last refurbishment ²	(d) Construction cost ³ (\$ million)	(e) Utilisation rate ⁴	(f) Cleaning frequency (time per day/week)
Pak Tam Au Flushing Toilet (PB1334)	2004	N/A	2.0	High	4/28
Shing Mun Lead Mine Pass Picnic Site (SM/P/010) Flushing Toilet (PB993)	1988	N/A	N/A	Moderate	4/28
Yuen Long District					
Tai Tong Barbecue Site (TL/B/101) Flushing Toilet (PB999)	1989	N/A	N/A	Low to High (Seasonal)	4/28
Tai Tong Barbecue Site (TL/B/106) Flushing Toilet (PB1118)	1998	N/A	2.0	Low to High (Seasonal)	4/28
Tai Tong Barbecue Site (TL/B/103) Flushing Toilet (PB1276)	2005	N/A	2.5	Low to High (Seasonal)	4/28
Kap Lung Catch Water Road Barbecue Site (TL/B/406) Flushing Toilet (PB725)	1979	N/A	N/A	Low to High (Seasonal)	4/28
Tai Mo Shan Country Park Visitor Centre Flushing Toilet (PB1011)	1991	N/A	N/A	Moderate	4/28
Wetland Park Flushing Toilet (8 Units)	2006	N/A	No separate breakdown as it was included in the total construction cost of the Wetland Park.	High	4/28
Tsuen Wan District					
Sham Tseng BBQ site (ST/B/002), Tsing Lung Tau Flushing Toilet (PB1335)	2003	N/A	2.0	Moderate to high	4/28
Shing Mun Country Park Kiosk Flushing Toilet (PB680)	1978	2017	N/A	High	4/28
Tai Mo Shan Country Park Kiosk Flushing Toilet (PB856)	1982	N/A	N/A	High	4/28
Kwai Tsing District					
Shing Mun Picnic Site (SM/P/006) Flushing Toilet (PB871)	1982	2017	N/A	Moderate	4/28
Shing Mun Barbecue Site (SM/B/008) Flushing Toilet (PB977)	1987	N/A	N/A	Moderate	4/28

(a) Location ¹	(b) Year of construction	(c) Year of last refurbishment ²	(d) Construction cost ³ (\$ million)	(e) Utilisation rate ⁴	(f) Cleaning frequency (time per day/week)
Sha Tin District					
Cheung Yuen Road Flushing Toilet (PB978)	1987	N/A	N/A	High	4/28
Hung Mui Kuk Barbecue Site (LR/B/102) Flushing Toilet (PB1003)	1990	2017	N/A	High	4/28
Ma On Shan Barbecue Site (MOS/B/103) Flushing Toilet (PB1000)	1989	2010	N/A	Moderate	4/28
Wong Tai Sin District					
Jat's Incline Morning Walkers Garden Flushing Toilet (PB1260)	2006	N/A	3.0	High	4/28
Sai Kung District					
Pak Tam Chung Car Park Flushing Toilet (PB849)	1982	N/A	N/A	High	4/28
Pak Tam Chung Picnic Garden Flushing Toilet (PB923)	1984	N/A	N/A	High	4/28
Pak Tam Chung Picnic Garden Flushing Toilet (PB1316)	2011	N/A	4.8	Moderate	4/28
Pak Tam Chung Barbecue Site (SKW/B/206) Flushing Toilet (PB1130)	2002	N/A	1.5	High	4/28
Sai Wan Village Flushing Toilet	N/A	N/A	N/A	Low	1/7
Sai Wan Beach Flushing Toilet	N/A	N/A	N/A	High	1/7
High Island East Dam Assembled Modular Toilet	2017	N/A	1.3	Moderate	1/7
Tai Mong Tsai Barbecue Site (SKW/B/003) Flushing Toilet (PB944)	1986	N/A	N/A	High	4/28
Lions Nature Education Centre, Visitor Centre Flushing Toilet (PB1070)	1991	N/A	N/A	High	4/28
Lions Nature Education Centre, Carpark, Flushing Toilet (PB1039)	1993	N/A	1.0	High	4/28
Lions Nature Education Centre, Deaf Cafeteria, Flushing Toilet (PB1074)	1991	N/A	N/A	High	4/28
Clear Water Bay Barbecue Site (CWB/B/001) Flushing Toilet (PB726)	1980	N/A	N/A	Moderate	4/28

(a) Location ¹	(b) Year of construction	(c) Year of last refurbishment ²	(d) Construction cost ³ (\$ million)	(e) Utilisation rate ⁴	(f) Cleaning frequency (time per day/week)
Clear Water Bay Barbecue Site (CWB/B/001) Flushing Toilet (PB1090)	1998	N/A	1.5	Moderate	4/28
Central & Western District					
Lung Fu Shan Picnic Site (LFS/P/001) (Picnic site of Pinewood Battery) Flushing Toilet (PB1092)	N/A	N/A	N/A	Moderate	4/28
Southern District					
Aberdeen Barbecue Site (ABD/B/008) Flushing Toilet (PB668 & PB894)	1977	2002	N/A	Moderate	4/28
Pok Fu Lam Country Park Entrance Flushing Toilet (PB1014)	1991	2008	N/A	Moderate	4/28
Tai Tam Tuk Flushing Toilet (PB1089)	1998	N/A	N/A	High	4/28
Eastern District					
Tai Tam Reservoir Road Tai Tam Barbecue Site (TT/B/007) Flushing Toilet (PB1017)	1992	2012	1.0	Moderate	4/28
Mount Parker Road Barbecue Site (QB/B/102) Flushing Toilet (PB893)	1981	2003	N/A	High	4/28
Tai Fung Au Flushing Toilet (PB1009)	1990	2003	N/A	High	4/28
Woodside Biodiversity Education Centre Flushing Toilet	2012	N/A	No separate breakdown as it was included in the total construction cost of the Centre.	Moderate	4/28
Island District					
Nam Shan Barbecue Site (LN/B/001) Flushing Toilet (PB763)	1982	N/A	N/A	Moderate	4/28
Nam Shan Campsite (LS/C/001) Flushing Toilet (PB764)	1982	N/A	N/A	Moderate	4/28

¹ There is no public toilet managed by the Agriculture, Fisheries and Conservation Department (AFCD) in Sham Shui Po, Kowloon City, Yau Tsim Mong, Tuen Mun, Wan Chai and Kwun Tong Districts.

² Only major renovation and refurbishment works are shown in the table above. Other maintenance works (e.g. repairing of water taps and electrical appliance, replacement of water pipeline, painting of wall, etc.) are carried out from time to time as and when

necessary. Information for works conducted more than 20 years ago is incomplete and thus not available.

³ Construction costs for most of the toilets constructed more than 20 years ago are incomplete and thus not available.

⁴ There are no objective and precise statistics on the utilisation rate of the toilets concerned. The utilisation rates tabulated above are divided into 3 categories (i.e. High, Moderate, Low) based on observation of the frontline staff.

(g) Cleansing of public toilets is conducted by staff (either cleaning workers of outsourced contractors or AFCD staff) who are also required to carry out other duties such as cleansing and litter collection in country parks or special areas. There is no separate breakdown on the number of staff only responsible for cleaning toilets.

(h) AFCD does not have the figures on the number of replenishments of toilet paper and liquid soap per week. The outsourced contractors and AFCD staff are required to check that there is toilet paper and sufficient liquid soap in the toilets and carry out replenishment as and when necessary.

- End -

CONTROLLING OFFICER'S REPLY

ENB209

(Question Serial No. 4504)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

The Government has suspended the wild pig hunting operations arranged by the civilian hunting teams since 2017 and replaced it with a pilot scheme for the contraception and/or relocation of the wild pigs caught.

- (a) Please set out in detail the respective numbers of cases about appearance of wild pigs or their causing nuisance, and reports on wild pigs injuring people, as well as the reasons for that over the past 5 years, with a breakdown by Hong Kong Island, Kowloon and the New Territories. Do the above figures indicate whether the spots are within the urban, rural or country park areas? If yes, please specify. Is it noted that there is a large number of repeated informants or locations where wild pigs appear?
- (b) As at December last year, the Agriculture, Fisheries and Conservation Department (AFCD) rendered contraceptive/sterilisation treatments to 54 wild pigs and the evaluation will be completed by the end of this year. What is the effectiveness as expected by AFCD? Are the manpower and expenditure sufficient? What will be the percentage of sterilised wild pigs against the total number of wild pigs across the territory by then?
- (c) The efficacy of the contraceptive drug lasts for about 4 to 6 years while a wild pig's life span ranges from 15 to 20 years. Will the scheme achieve the expected effectiveness in reducing the reproduction of wild pigs?

Asked by: Hon TAM Man-ho, Jeremy (LegCo internal reference no.: 212)

Reply:

- (a) Over the past 5 years, the number of reports on the sighting of or nuisance caused by wild pigs and the number of injury cases received by the

Agriculture, Fisheries and Conservation Department (AFCD) by district are tabulated below.

Financial year	Number of reports on the sighting of or nuisance caused by wild pigs (number of injury reports)			
	Hong Kong Island	Kowloon	New Territories	Total
2014-15	154 (0)	25 (0)	217 (0)	396 (0)
2015-16	211 (0)	35 (0)	264 (0)	510 (0)
2016-17	248 (2)	56 (0)	339 (0)	643 (2)
2017-18	374 (1)	26 (0)	387 (3)	787 (4)
2018-19 (as of January 2019)	403 (4)	34 (1)	382 (3)	819 (8)

According to the statistics, most of the injury cases occurred due to wild pigs being scared off by people. Some cases occurred because people were so frightened on seeing wild pigs that they fell down onto the ground.

In recent years, most of the reports on the appearance of or nuisance caused by wild pigs come from human settlements adjoining country parks or urban areas on Hong Kong Island or in the New Territories. These reports showed that the conflicts between people and wild animals are on the increase. This condition is related to the wild pig population density, the change of their foraging behaviour and higher tolerance towards wild pigs by people in the countryside.

- (b) and (c) The dedicated team for the management of wild pigs currently comprises 6 members. Besides, AFCD temporarily deployed 8 staff from other teams to render assistance. AFCD will deploy 26 staff (including the 6 of the dedicated team) to take up the wild pig management duties in 2019-20. In addition, AFCD will deploy additional staff when it conducts wild pig contraception/relocation operations.

Unlike wild pigs kept in captivity which may live longer, those in the field generally live less than 10 years. According to overseas studies, the efficacy of contraceptive vaccine lasts for a minimum of 4 to 6 years. Therefore, an injection of contraceptive vaccine for a wild pig in general should be effective throughout most of its life span. Currently, AFCD, in collaboration with the Department of Agriculture of the United States as well as the Department for Environment, Food and Rural Affairs of the United Kingdom, is conducting a field trial on the effectiveness of contraceptive vaccine in controlling the breeding of wild pigs. As wild pigs have to be observed for a minimum of 2 years after the injection of contraceptive vaccine for a preliminary assessment of the effectiveness of the vaccine, we therefore cannot make any presumption of its effectiveness at this stage. AFCD will monitor the wild pig population covered by the field trial to evaluate the effectiveness of the contraceptive vaccine at the end of 2019.

AFCD will make reference to the effectiveness of contraceptive vaccine in the field in order to decide the next step forward.

- End -

CONTROLLING OFFICER'S REPLY**ENB210****(Question Serial No. 5143)**Head: (22) Agriculture, Fisheries and Conservation DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) Nature Conservation and Country ParksControlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)Director of Bureau: Secretary for the EnvironmentQuestion:

Please inform, in tabular form, this Committee of the respective numbers of visitors of country parks and marine parks over the past 5 years:

Name of country park and marine park	Year				
	2014	2015	2016	2017	2018
Country park					
Shing Mun Country Park					
Kam Shan Country Park					
Lion Rock Country Park					
Aberdeen Country Park					
Tai Tam (Extension) Country Park					
Sai Kung East Country Park					
Sai Kung West Country Park (Wan Tsai Extension)					
Plover Cove (Extension) Country Park					
Lantau South Country Park					
North Lantau (Extension) Country Park					

Pat Sin Leng Country Park					
Tai Lam Country Park					
Tai Mo Shan Country Park					
Lam Tsuen Country Park					
Ma On Shan Country Park					
Kiu Tsui Country Park					
Shek O Country Park					
Pok Fu Lam Country Park					
Clear Water Bay Country Park					
Lung Fu Shan Country Park					
Marine park					
Hoi Ha Wan Marine Park					
Yan Chau Tong Marine Park					
Sha Chau & Lung Kwu Chau Marine Park					
Tung Ping Chau Marine Park					

Asked by: Hon TAM Man-ho, Jeremy (LegCo internal reference no.: 428)

Reply:

The Agriculture, Fisheries and Conservation Department (AFCD) regularly conducts visitor surveys at various locations including major entry points and recreational sites of country parks and marine parks to estimate the number of visitors. Since many country parks are geographically connected and visitors often visit or use more than one country parks in their trips, AFCD does not have the breakdown of visitor statistics for individual country parks. The number of visitors of country parks in 6 broad regions over the past 5 years is tabulated below:

Country parks by region/ Calendar year	Number of visitors (million)				
	2014	2015	2016	2017	2018
Hong Kong Island	2.9	3.0	3.0	2.9	2.8
Lantau Island	1.3	1.3	1.3	1.2	1.2
West New Territories	0.7	0.7	0.7	0.8	0.7
North New Territories	1.9	2.5	2.4	2.7	2.5
Central New Territories	1.1	1.4	1.6	1.6	1.7
East New Territories	3.3	4.3	4.0	3.8	3.4
Total	11.2	13.2	13.0	13.0	12.3

The number of visitors of marine parks over the past 5 years is tabulated below:

Marine parks/ Calendar year	Number of visitors (thousand)				
	2014	2015	2016	2017	2018
Hoi Ha Wan	53	45	38	36	34
Yan Chau Tong	20	18	23	25	22
Sha Chau and Lung Kwu Chau	4	4	2	2	3
Tung Ping Chau	43	38	32	34	31
Total	120	105	95	97	90

* The Brothers Marine Park was established in December 2016. The respective number of visitors of the marine park in 2017 and 2018 is about 2 000.

- End -

CONTROLLING OFFICER'S REPLY

ENB211

(Question Serial No. 4688)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the management of country parks, special areas, marine parks and marine reserve mentioned in this programme, would the Government advise this Committee on the following:

- (a) According to the departmental record, what was the number of hiking trails or country trails closed by private land owners due to disputes over the interface of various types of hiking trails or country trails with their private land in the past year? Please set out the trail sections and locations involved in such cases, as well as the suggested alternative routes for hikers.
- (b) Has any request been made to the land owners concerned for the reopening of the said sections? If yes, what are the details of the reopening? If not, what are the reasons?
- (c) Has assistance been sought from other government departments, e.g. the Lands Department, the Department of Justice, etc. to see if the land owners' practice is legal or an encroachment on government land? If yes, what are the details? If not, what are the reasons? Has the Lands Department carried out any investigations into encroachments on government land?

Asked by: Hon WU Chi-wai (LegCo internal reference no.: 138)

Reply:

- (a) In 2018, there were 2 cases of blockage of footpath on private land within country parks resulting in continuous temporary closure of hiking trails. The affected footpaths were Lantau Trail Section 7 near Yi O Village and the Ping Chau Country Trail on Tung Ping Chau.

- (b) The Agriculture, Fisheries and Conservation Department (AFCD) has liaised with the land owners with a view to resolving the blockage of footpaths. In the aforementioned 2 cases, alternative footpaths bypassing the affected sections have been provided for country park visitors. Relevant information on alternative routes has been posted on-site as well as on AFCD's website (https://www.hiking.gov.hk/pathinfo/announcement_eng.php).
- (c) We will maintain communication with the relevant government departments and stakeholders having regard to the specific circumstances of each case in a bid to provide clarification and settle disputes as soon as practicable.

- End -

CONTROLLING OFFICER'S REPLY**ENB212****(Question Serial No. 4689)**Head: (22) Agriculture, Fisheries and Conservation DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) Nature Conservation and Country ParksControlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the management of country parks, special areas, marine parks and the marine reserve mentioned in this programme, would the Government inform this Committee of the number of applications for permits and the number of approved cases regarding vehicles entering Sai Kung East and Sai Kung West Country Parks (Pak Tam Chung Barrier) each month, with a breakdown by ordinary vehicles and coaches over the past year.

Asked by: Hon WU Chi-wai (LegCo internal reference no.: 139)Reply:

The number of vehicle permits issued by the Agriculture, Fisheries and Conservation Department and the Home Affairs Department for ordinary vehicles and coaches to enter Sai Kung East and Sai Kung West Country Parks through the Pak Tam Chung barrier gate in 2018 is tabulated as follows:

Month	Number of vehicular permits issued	
	Ordinary vehicles	Coaches
January	2 344	238
February	2 010	133
March	2 959	305
April	2 862	257
May	2 934	209
June	2 563	190
July	2 857	314
August	2 803	222
September	2 633	109
October	3 236	307
November	2 803	391
December	2 978	304
Subtotal	32 982	2 979
Total	35 961	

- End -

CONTROLLING OFFICER'S REPLY

ENB213

(Question Serial No. 4690)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the enforcement of the Country Parks Ordinance (Cap. 208) and the management within country parks, please advise this Committee on the following:

- (a) What were the number of complaints related to the unlawful occupation of land within country parks received and the Government's follow-up actions over the past 2 years?
- (b) Section 16 of the Country Parks Ordinance provides that, in any case where the Authority is of the opinion that any use or proposed use of leased land within a country park substantially reduces the enjoyment and amenities of the country park as such, he may request the Land Authority to, by notice in writing, require discontinuance, modification of or prohibit the use. What was the number of notices issued under the Section, and how were they complied with, over the past 3 years?

Asked by: Hon WU Chi-wai (LegCo internal reference no.: 140)

Reply:

- (a) Over the past 2 years, the Agriculture, Fisheries and Conservation Department (AFCD) has received 10 complaint cases related to unlawful occupation of government land within country parks. In general, upon receipt of such complaints, AFCD will conduct follow-up investigations and initiate prosecutions under the legislation administered by it if there is sufficient evidence, and/or refer the cases to relevant departments for their actions. Depending on individual circumstances, AFCD may also erect warning notices, remove unauthorised items and reinstate the site as appropriate.
- (b) There has been no request made by the Country and Marine Parks Authority to the Land Authority under section 16 of the Country Parks Ordinance (Cap. 208) over the past 3 years.

- End -

CONTROLLING OFFICER'S REPLY

ENB214

(Question Serial No. 4101)

Head: (22) Agriculture, Fisheries and Conservation Department

Subhead (No. & title): (000) Operational expenses

Programme: (2) Nature Conservation and Country Parks

Controlling Officer: Director of Agriculture, Fisheries and Conservation
(Dr LEUNG Siu-fai)

Director of Bureau: Secretary for the Environment

Question:

Regarding the “the promotion of public education and publicity on nature conservation”, please advise this Committee on the operational expenses of the Agriculture, Fisheries and Conservation Department Official YouTube Channel (<https://www.youtube.com/channel/UCSeqNcpZEw0Rk40wNYV2OKA>) and Facebook page (<https://www.facebook.com/afcdgovhk>) (including video production, advertisements, daily operation, etc.) over the past year.

Asked by: Hon YEUNG Alvin (LegCo internal reference no.: 82)

Reply:

In 2018-19, the Agriculture, Fisheries and Conservation Department (AFCD) maintained a number of Facebook pages and YouTube Channels to promote the work of AFCD (including, but not limited to, nature conservation). These include the departmental Facebook page and YouTube Channel mentioned in the question, as well as those of the Hong Kong Wetland Park, Mr. B Classroom and country parks education programmes. The above-mentioned social media pages are integral parts of AFCD's overall public education and publicity work. We are not able to provide the breakdown on the resources involved in “the promotion of public education and publicity on nature conservation”.

- End -

CONTROLLING OFFICER'S REPLY**ENB215****(Question Serial No. 5775)**Head: (33) Civil Engineering and Development DepartmentSubhead (No. & title): ()Programme: (7) Management of Construction and Demolition MaterialsControlling Officer: Director of Civil Engineering and Development (Ricky C K LAU)Director of Bureau: Secretary for the EnvironmentQuestion:

1. Please advise of the total quantity of the public fill received locally for each of the previous 5 years (2014-2018).
2. Please set out in the tabular form the quantity of the public fill recycled as aggregates and granular materials for beneficial reuse in construction works for each of the previous 5 years:

	Quantity of the public fill recycled as aggregates (in tonnes)	Quantity of the public fill recycled as granular materials (in tonnes)
2014		
2015		
2016		
2017		
2018		

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 141)Reply:

1. The Government properly manages the inert construction and demolition (C&D) materials (also known as public fill) arising from various types of construction works through a multi-pronged approach, including promoting to the construction industry the reduction and reuse of public fill as much as possible. While part of the public fill are transferred to suitable construction sites for direct reuse, the rest are delivered to public fill reception facilities (including 2 temporary fill banks) for future reuse in reclamation or earth filling projects. The quantities of public fill received at public fill reception facilities in each of the past 5 years are tabulated as follows:

Year	Public Fill Received at Public Fill Reception Facilities (million tonnes)
2014	12.3
2015	16.0
2016	15.0
2017	13.3
2018	14.6*

*Provisional actual figure subject to adjustment

2. The Government promotes the reuse of public fill in suitable local construction projects as far as possible. In the past 5 years, the fill banks supplied public fill to more than 70 local construction projects, including the on-going Three-Runway System project and the Tung Chung New Town Extension project. The overall quantities supplied are tabulated as follows:

Year	Quantities Supplied (million tonnes)
2014	6.4
2015	0.7
2016	0.2
2017	0.3
2018	2.4*

*Provisional actual figure subject to adjustment

Note: The above figures do not include the public fill that is not delivered to the fill banks but directly delivered to other construction projects for reuse.

In addition, we also crush larger pieces of C&D materials into recyclable inert hard C&D materials (including recyclable aggregates and granular materials) for use in construction projects in light of their demands. The quantities of recycled inert hard C&D materials in the past 5 years are tabulated as follows:

Year	Recycled Inert Hard C&D Materials (million tonnes)
2014	0.04
2015	0.03
2016	0.02
2017	0.04
2018	0.12

Note: We do not have a breakdown of the recycled aggregates and granular materials.

- End -

CONTROLLING OFFICER'S REPLY**ENB216****(Question Serial No. 4398)**Head: (33) Civil Engineering and Development DepartmentSubhead (No. & title): ()Programme: (7) Management of Construction and Demolition MaterialsControlling Officer: Director of Civil Engineering and Development (Ricky C K LAU)Director of Bureau: Secretary for the EnvironmentQuestion:

Given that there will be quite a number of local reclamation works on the pipeline in future, the public fill may be recycled for use as reclamation materials. In this connection, would the Government inform this Council:

- a) of the quantity of the public fill locally generated over the previous 3 years;
- b) of the costs incurred in recycling the public fill for use as reclamation materials;
- c) of the proportion of the public fill currently used in the reclamation works under the Airport Three-Runway Project and Tung Chung New Town extension?

Asked by: Hon LUK Chung-hung (LegCo internal reference no.: 58)Reply:

a) The Government properly manages the inert construction and demolition (C&D) materials (also known as public fill) arising from various types of construction works through a multi-pronged approach, including promoting to the construction industry the reduction and reuse of public fill as much as possible. While part of the public fill are delivered to suitable local construction projects for direct reuse, the rest are delivered to public fill reception facilities (including 2 temporary fill banks) for storage and future reuse in reclamation or earth filling projects. The quantities of public fill locally generated and received at public fill reception facilities in each of the past 3 years are tabulated as follows:

Year	Public Fill Locally Generated (million tonnes)	Public Fill Received at Public Fill Reception Facilities (million tonnes)
2016	22.8	15.0
2017	17.9	13.3
2018	Figure being collated	14.6*

*Provisional actual figure subject to adjustment

b) The handling and other relevant expenditure involved in the reuse of public fill in reclamation are subject to the designs and construction needs of individual reclamation projects.

c) The Three-Runway System project and the Tung Chung New Town Extension project are collecting public fill from fill banks for reclamation. The projects will reuse public fill as far as practicable, and the actual reuse quantity will be subject to the works progress and needs.

- End -

CONTROLLING OFFICER'S REPLY

ENB217

(Question Serial No. 4399)

Head: (33) Civil Engineering and Development Department
Subhead (No. & title): ()
Programme: (7) Management of Construction and Demolition Materials
Controlling Officer: Director of Civil Engineering and Development (Ricky C K LAU)
Director of Bureau: Secretary for the Environment

Question:

It was mentioned that the Civil Engineering and Development Department continued to deliver surplus public fill for beneficial reuse in the Mainland. In this connection, would the Government inform this Council:

- a) whether the delivery of surplus public fill to the Mainland will incur costs; if yes, of the details;
- b) of the reasons why the Government did not supply the surplus public fill for use in local reclamation works;
- c) whether the Government has examined delivery of all the public fill locally generated for use in reclamation projects, given that there will be more local reclamation works in the pipeline in future; if yes, of the details?

Asked by: Hon LUK Chung-hung (LegCo internal reference no.: 59)

Reply:

a and b) The Government properly manages the inert construction and demolition materials (also known as public fill) arising from various types of construction works through a multi-pronged approach, including promoting to the construction industry the reduction and reuse of public fill as much as possible. While part of the public fill are delivered to suitable local construction projects for direct reuse, the rest are delivered to public fill reception facilities (including 2 temporary fill banks) for storage and future reuse in reclamation or earth filling projects. As local reuse could not absorb all the public fill generated in Hong Kong in recent years and the capacity of temporary fill banks is limited, the Government has been delivering surplus public fill to Taishan in the Guangdong Province for disposal since 2007. The quantities of the surplus public fill delivered to Taishan for disposal in the past 3 years are tabulated as follows:

Year	Quantities of the Surplus Public Fill Delivered to Taishan for Disposal (million tonnes)
2016	13.6
2017	13.5
2018	10.0*

*Provisional actual figure subject to adjustment

The Government's expenditure on the management of public fill in the past 3 financial years is tabulated as follows:

Financial Year	Expenditure (\$ million)
2016-17	1,175.3 (actual)
2017-18	1,032.2 (actual)
2018-19	949.3 (revised estimate)

The above expenditure mainly includes the operation and maintenance costs of public fill reception facilities, costs for the delivery of surplus public fill to the Mainland and for the supply of public fill stockpiled at the fill banks to local projects for reuse, associated staff costs and administrative expenses, as well as costs for the provision of required facilities for disposal of public fill at disposal sites. As the delivery of surplus public fill to the Mainland and the supply of public fill stockpiled in fill banks to local projects for reuse are both undertaken by a single contractor, there is no breakdown of the costs for individual operations in the contract.

c) The local construction industry annually generates a large quantity of public fill. As mentioned above, while part of the public fill are delivered to suitable local construction projects for direct reuse, the rest are delivered to the temporary fill banks for storage and future reuse in reclamation or earth filling projects. Both of the Three-Runway System project and the Tung Chung New Town Extension project under construction are absorbing public fill from the fill banks for reclamation.

- End -

CONTROLLING OFFICER'S REPLY

ENB218

(Question Serial No. 7269)

Head: (39) Drainage Services Department

Subhead (No. & title): Not specified

Programme: (2) Sewage Services

Controlling Officer: Director of Drainage Services (LO Kwok-wah)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned that in the coming financial year, the Drainage Services Department will “continue with the design and commence the construction of transforming King Yip Street nullah into Tsui Ping River”. In this connection, please advise this Committee of:

any odour level measured in the vicinity of each nullah across the territory. If yes, please list, by District Council District, the names of each nullah in Hong Kong and the respective figures by season. If not, what are the reasons?

Asked by: Hon TAM Man-ho, Jeremy (LegCo internal reference no.: 485)

Reply:

The Drainage Services Department (DSD) does not measure the odour level within each nullah across the territory. However, DSD inspects each nullah regularly as well as clears the rubbish and silts within the nullahs as necessary to ensure that the nullahs are clean and operating with no blockage.

- End -

CONTROLLING OFFICER'S REPLY

ENB219

(Question Serial No. 5155)

Head: (39) Drainage Services Department

Subhead (No. & title): Not specified

Programme: (2) Sewage Services

Controlling Officer: Director of Drainage Services (LO Kwok-wah)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned that in the coming financial year, the Drainage Services Department will “continue with the design and commence the construction of transforming King Yip Street nullah into Tsui Ping River”. However, to properly resolve the odour problem of this type of nullah and its surrounding area so as to attract more citizens to get closer to water bodies, we cannot solely depend on revitalisation works. The Drainage Services Department also needs to resolve the expedient connection issue after revitalisation. In this connection, please advise this Committee of the following:

1. regarding King Yip Street nullah, the number of expedient connection cases where sewers are connected to there, handled by the Drainage Services Department every year;
2. among the aforementioned figures, the number of cases discovered by the Drainage Services Department while conducting proactive inspections and the number of cases reported by the public;
3. the staff establishment for inspecting expedient connections.

Asked by: Hon TAM Man-ho, Jeremy (LegCo internal reference no.: 482)

Reply:

1. In the past five years, the Drainage Services Department (DSD) handled one case of expedient connection to public drainage in the catchment area of King Yip Street nullah.
2. The above case handled by DSD was referred by the Environmental Protection Department (EPD).
3. At present, DSD does not have any staff in its establishment specifically designated for the inspection of expedient connections. If suspected expedient connections are found in its regular inspection of public drainages, DSD will follow up and refer such cases to relevant departments (such as EPD and the Buildings Department) and co-operate with them in investigation according to their respective duties.

- End -

CONTROLLING OFFICER'S REPLY

ENB220

(Question Serial No. 5156)

Head: (39) Drainage Services Department

Subhead (No. & title): Not specified

Programme: (2) Sewage Services

Controlling Officer: Director of Drainage Services (LO Kwok-wah)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned that in the coming financial year, the Drainage Services Department will "continue with the design and commence the construction of transforming King Yip Street nullah into Tsui Ping River". However, to properly resolve the odour problem of this type of nullah and its surrounding area so as to attract more citizens to get closer to water bodies, we cannot solely depend on revitalisation works. The Drainage Services Department also needs to resolve the expedient connection issue after revitalisation. In this connection, please advise this Committee of the following:

1. the number of expedient connection cases handled by the Drainage Services Department every year by District Council District over the past five years;
2. among the aforementioned figures, the number of cases discovered by the Drainage Services Department while conducting proactive inspections and the number of cases reported by the public;
3. any measures in place to enhance the efficiency of handling expedient connection cases. If yes, what are the details? If not, what are the reasons?

Asked by: Hon TAM Man-ho, Jeremy (LegCo internal reference no.: 483)

Reply:

1. In the past five years, the Drainage Services Department (DSD) all together handled 78 cases of expedient connections to public drainage systems. Their distribution by District Council District is as follows:

Central & Western District: 3 cases in 2018 (3 cases in total)

Eastern District: 1 case in 2016 (1 case in total)

Southern District: 1 case in 2015; 1 case in 2017; 2 cases in 2018 (4 cases in total)

Wanchai District: 2 cases in 2017; 4 cases in 2018 (6 cases in total)

Kowloon City District: 1 case in 2015; 1 case in 2017; 3 cases in 2018 (5 cases in total)

Kwun Tong District: 7 cases in 2015; 1 case in 2016 (8 cases in total)

Sham Shui Po District: 3 cases in 2017; 1 case in 2018 (4 cases in total)

Yau Tsim Mong District: 1 case in 2015; 7 cases in 2016; 6 cases in 2017; 17 cases in 2018 (31 cases in total)

Wong Tai Sin District: 1 case in 2015; 1 case in 2016; 3 cases in 2017 (5 cases in total)

Islands District: no case in the past 5 years

Kwai Tsing District: no case in the past 5 years

North District: no case in the past 5 years

Sai Kung District: no case in the past 5 years

Sha Tin District: no case in the past 5 years

Tai Po District: no case in the past 5 years

Tsuen Wan District: 1 case in 2014; 3 cases in 2015; 1 case in 2017; 2 cases in 2018 (7 cases in total)

Tuen Mun District: no case in the past 5 years

Yuen Long District: 1 case in 2016; 3 cases in 2018 (4 cases in total)

2. Among the above 78 cases that have been handled, 13 were discovered by DSD during its proactive inspections, and one was reported to DSD by a member of the public. The other 64 cases were referred by the Environmental Protection Department (EPD).
3. Apart from regular inspection of public drainages, DSD has all along maintained close liaison with relevant departments such as EPD and proactively handled cases referred by it. DSD also ties in with its investigations in illegal discharge of sewage.

- End -

CONTROLLING OFFICER'S REPLY**ENB221****(Question Serial No. 7218)**Head: (42) Electrical and Mechanical Services DepartmentSubhead (No. & title): Not SpecifiedProgramme: (1) Energy Supply; Electrical, Gas and Nuclear Safety, (3) Energy Efficiency and Conservation, and Alternative EnergyControlling Officer: Director of Electrical and Mechanical Services (Alfred W H SIT)Director of Bureau: Secretary for the EnvironmentQuestion:

1. What are the respective numbers of electrical incidents reported to the Electrical and Mechanical Services Department (EMSD) in the past 5 years? What is the expenditure of the EMSD in 2019-20 for checking and repairing the electricity facilities in Hong Kong?

2. With regard to the renewable energy projects undertaken for the Government and public bodies, please provide information according to the format below:

	Name of Government Departments/ Public Bodies	Buildings/ Facilities Involved	Electricity and Cost Saving	Reduction in Carbon Emission
2016-2017				
2017-2018				
2018-2019				

3. With regard to the energy-saving projects undertaken for the Government and public bodies, please provide information according to the format below:

	Name of Government Departments/ Public Bodies	Buildings/ Facilities Involved	Electricity and Cost Saving	Reduction in Carbon Emission
2016-2017				
2017-2018				
2018-2019				

4. Please list the numbers of prosecutions and disciplinary actions taken by the EMSD in the past 5 years.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 115)

Reply:

1. The respective numbers of electrical incidents reported to the Electrical and Mechanical Services Department (EMSD) in the past 5 years are as follow:

Year	Number of Electrical Incidents
2018	382
2017	378
2016	427
2015	361
2014	401

The checking and repairing of electricity facilities are carried out by their responsible persons instead of the EMSD. As for the electricity facilities owned by the Government, checking and repairing are undertaken by the owner departments. The EMSD does not have information on the expenditure involved.

2. In pursuing the adoption of renewable energy (RE) and energy-saving projects, the Government will follow the Technical Circular on “Green Government Buildings” in incorporating RE and energy-saving facilities where technically feasible and cost effective, having regard to the actual conditions of the public works projects or the sites concerned. As these RE projects are funded by the provision for individual capital works projects, the Director of Electrical and Mechanical Services is not the controlling officer of the projects’ expenditure, and there is no need for the EMSD to allocate separate resources for the implementation of those projects. Hence, the information requested in the question is not available.

3. The table below sets out the energy-saving projects implemented by the EMSD for various government departments and public bodies from 2017-18 to 2018-19:

	Name of Government Departments/ Public Bodies	Buildings/ Facilities Involved	Electricity Saving#	Reduction in Carbon Emission
2018-2019	Customs and Excise Department, Civil Aviation Department,	Arts and cultural venues, court buildings, cooked	About 13.3 million kWh (estimated)	About 9 310 tonnes (estimated)
2017-2018	Civil Aid Service, Hong Kong Correctional Services Department, Department of Health, Education Bureau, EMSD, Food and Environmental Hygiene Department,	food centres, clinics, community centres, departmental headquarters, fire stations, government offices,	About 5.7 million kWh	About 3 990 tonnes

	Fire Services Department, Government Flying Service, Government Laboratory, Government Property Agency, Hong Kong Observatory, Hong Kong Police Force, Hong Kong Independent Commission Against Corruption, Immigration Department, Judiciary, Leisure and Cultural Services Department, Marine Department and Radio Television Hong Kong.	government quarters, municipal buildings, parks and playgrounds, police stations, correctional institutions, control points, recreation centres, schools, sports centres, swimming pools, ferry terminals, etc.		
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#Note: The EMSD does not collect information on the electricity cost of individual government departments.

As the EMSD started to implement the energy-saving and energy efficiency improvement projects from 2017-18, no statistics for 2016-17 are provided in the above table.

4. The numbers of prosecutions and disciplinary actions taken by the EMSD in accordance with the Electricity Ordinance (Cap. 406), Energy Efficiency (Labelling of Products) Ordinance (Cap. 598), Buildings Energy Efficiency Ordinance (Cap. 610) and Gas Safety Ordinance (Cap. 51) in the past 5 years are set out below:

Year	Number of Prosecutions Initiated	Number of Disciplinary Actions Taken [^]
2018	426	68
2017	946	41
2016	825	28
2015	812	28
2014	891	29

[^]Note: Disciplinary actions are not applicable to the Energy Efficiency (Labelling of Products) Ordinance.

- End -

CONTROLLING OFFICER'S REPLY

ENB222

(Question Serial No. 4098)

Head: (42) Electrical and Mechanical Services Department
Subhead (No. & title): (000) Operational Expenses
Programme: (3) Energy Efficiency and Conservation, and Alternative Energy
Controlling Officer: Director of Electrical and Mechanical Services (Alfred W H SIT)
Director of Bureau: Secretary for the Environment

Question:

It is estimated that the Electrical and Mechanical Services Department will complete 3 studies in relation to the “research and development on the application of innovative energy efficiency technologies”, which is the same as the number of studies in 2017 and 2018. Please:

1. list the topics and areas of the studies in 2017 and 2018 as well as the expenditure involved; and
2. list the topics and areas of the proposed studies in 2019 as well as the estimated expenditure.

Asked by: Hon YEUNG Alvin (LegCo internal reference no.: 38)

Reply:

The expenditure involved in the applied research studies on innovative energy efficiency and renewable energy technologies completed in 2017-18 and 2018-19 (3 studies each year) was about \$0.3 million and \$1.1 million respectively, while the estimated expenditure on the 3 studies to be carried out in 2019-20 is about \$2.1 million. The expenditure on each study depends on the nature of the technology concerned and the actual research works required.

The studies in 2017-18 included (i) applicability of cogeneration and trigeneration in Hong Kong; (ii) energy efficiency of variable-speed window-type room air conditioners; and (iii) energy efficiency and reliability of passive drivers for light-emitting diode (LED) lighting.

The studies in 2018-19 included (i) actual performance of electricity generation of photovoltaic panels in the local environment (including different orientations and tilt angles); (ii) energy efficiency and reliability of graphene LED lighting; and (iii) energy efficiency and reliability of permanent-magnet synchronous motors used in fan coil units of air-conditioning systems.

The studies to be carried out in 2019-20 include (i) energy efficiency and reliability of immersion cooling technology used in servers of data centres; (ii) thermal insulation performance of innovative solar control window films; and (iii) electricity generation performance and reliability of hybrid wind-solar power generators.

- End -

CONTROLLING OFFICER'S REPLY

ENB223

(Question Serial No. 4717)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

In the Matters Requiring Special Attention in 2019-2020 under this Programme, the Administration mentions that it will continue to implement the South East New Territories Landfill Extension Scheme and the North East New Territories Landfill Extension Scheme and to carry out the design and site investigation study on the West New Territories Landfill Extension Scheme. Would the Administration advise this Committee on the following:

1. What are the operational expenses, staff establishment and estimated annual expenditure on salaries for the above work for 2019-20?
2. What are the operational expenses, staff establishment and estimated annual expenditure on salaries of the Landfills and Development Group under the Environmental Protection Department for 2019-20?

Asked by: Hon CHAN Chi-chuen (LegCo internal reference no.: 229)

Reply:

1. We are pressing ahead with the implementation of the South East New Territories Landfill Extension Scheme and the North East New Territories Landfill Extension Scheme, as well as the design and site investigation study of the West New Territories Landfill Extension Scheme. In 2019-20, the estimated expenditure of the above extension schemes, including those for relevant design, study and works, is \$575 million in total. As the above tasks are mainly carried out by staff of the Environmental Infrastructure Division of the Environmental Protection Department (EPD), we do not have a breakdown on the manpower resources required for individual tasks.

2. The Landfills and Development Group (LDG) of the Environmental Infrastructure Division of the EPD is mainly responsible for managing the 3 existing strategic landfills, implementing the extension schemes and other work relating to the landfills. It is estimated that the operational expenditure associated with the 70 staff members at various levels in the LDG (including salary and other recurrent expenditure) is about \$57.36 million in 2019-20.

- End -

CONTROLLING OFFICER'S REPLY**ENB224****(Question Serial No. 3459)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

In the past 3 years, regarding local construction waste, would the Government advise this Committee on the following:

- i. The amount of public fill generated in Hong Kong and the capacity of the public fill reception facilities in each year;
- ii. The number of complaints received about illegal dumping of construction waste in public places or rural areas in each year;
- iii. The number of proactive inspections conducted to combat acts of illegal dumping of construction waste;
- iv. The number of prosecutions against the persons concerned, and the penalties imposed;
- v. What measures will be put in place to combat illegal disposal of construction waste in the future? What are the relevant manpower and expenditure?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 49)Reply:

(i)

The Government has been properly managing the inert construction and demolition materials (also known as public fill) arising from various types of construction works through a multi-pronged approach, including promoting to the construction industry the reduction and reuse of public fill as much as possible. While part of the public fill is directly reused in local construction projects, the rest is delivered to public fill reception facilities (including 2 temporary fill banks) for storage and future reuse in reclamation or earth filling projects. The quantities of public fill locally generated and received at public fill reception facilities in each of the past 3 years are as follows:

Year	Public Fill Locally Generated (million tonnes)	Public Fill Received at Public Fill Reception Facilities (million tonnes)
2016	22.8	15.0

2017	17.9	13.3
2018	Figure being collated	14.6*

* Provisional actual figure subject to adjustment

(ii) to (iv)

Cases of illegal disposal of construction waste include fly-tipping of construction waste on government land and illegal land filling of construction waste on private land. The number of public complaint cases on illegal disposal of construction waste handled by the relevant government departments (including the Environmental Protection Department (EPD), the Agriculture, Fisheries and Conservation Department, the Buildings Department, the Civil Engineering and Development Department, the Drainage Services Department, the Food and Environmental Hygiene Department, the Home Affairs Department, the Lands Department, the Planning Department and the Highways Department), as well as the number of inspections (including proactive inspections and complaints-follow up inspections), number of prosecutions and total fine in the past 3 years are tabulated below:

Fly-tipping of construction waste on government land

Year	2016	2017	2018
Number of public complaint cases ¹	8 225	10 507	9 876
Number of inspections	16 795	13 798	14 927
Number of prosecutions			
(1) Number of summonses issued	105	80	82
(2) Number of Fixed Penalty Notices (FPNs) issued ²	45	33	54
Total fine (\$m) ³	0.89	0.56	0.46

Notes:

¹ Including multiple complaints which may arise from a single case.

² The fine level of the FPN is \$1,500.

³ Total fine includes penalties for convictions by summonses and fixed penalties.

Illegal land filling of construction waste on private land

Year	2016	2017	2018
Number of public complaint cases ¹	571	397	376
Number of inspections	1 622	1 662	1 437
Number of prosecutions			
Number of summonses issued	52	96	105
Total fine (\$m)	1.22	1.34	2.42

Note:

¹ Including multiple complaints which may arise from a single case.

(v)

The EPD will continue to review its enforcement strategies from time to time, and will gradually increase the number of surveillance camera systems and flexibly deploy

installation of such systems at black spot locations to expand the surveillance coverage. We will deploy manpower resources flexibly having regard to risk assessments, work priorities and actual conditions in the districts to facilitate planning of inspections and pooling of efforts in enforcement in a more effective manner. We will also increase the number of inspections within and outside office hours as well as on public holidays according to the specific needs, and will continue to strengthen collaboration with other relevant departments to jointly carry out close monitoring and enforcement work. The relevant enforcement work is part of the routine duties of the EPD and the relevant government departments. We do not have separate figures for the manpower and expenditure involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB225

(Question Serial No. 3463)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding local air pollution, would the Government advise this Committee on the following:

1. What were the major sources of the local air pollutants in the past 5 years?
2. What is the current fuel mix for electricity generation? What is the anticipated change in the fuel mix for electricity generation in the coming 10 years?
3. What are the expenditures allocated by the two power companies for purchasing new gas-fired generating units?
4. Regarding water pollution, it is stated that the Government will continue to explore the feasibility of a pilot scheme on green ferry. What are the details?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 53)

Reply:

1. The Environmental Protection Department (EPD) compiles the Hong Kong Air Pollutant Emission Inventory (Emission Inventory) every year to analyse the distribution and trends of major air pollution sources in Hong Kong. The Emission Inventories for 2017 and 2018 are still under compilation. According to the Emission Inventory for 2016, the emission sources of major air pollutants in Hong Kong (sulphur dioxide, nitrogen oxides, respirable suspended particulates, fine suspended particulates and carbon monoxide) are mainly vessels, power plants and vehicles, whereas the main sources of volatile organic compounds emissions are non-combustion sources (including the use of paints, printing inks and consumer products such as hair sprays, adhesives, etc.). Please refer to the Annex for the percentages of emissions from various local major air pollutant emission sources in Hong Kong's total emissions from 2012 to 2016.
2. In the overall fuel mix for electricity generation in Hong Kong in 2018, coal-fired generation accounted for around 45%, gas-fired generation accounted for around 28%,

nuclear electricity imported from the Mainland and local renewable energy (RE) accounted for around 27%.

Having regard to the results of the Public Consultation on Future Fuel Mix for Electricity Generation in Hong Kong conducted in 2014, we announced in 2015 the fuel mix for 2020, which aims to increase the percentage of local gas-fired generation to around 50% and maintain the current arrangement of importing nuclear electricity from the Daya Bay Nuclear Power Station such that nuclear electricity import will account for around 25% of the overall fuel mix. We will also develop more RE, enhance our efforts to promote energy saving in the community and meet the remaining demand for electricity by coal-fired generation.

To achieve the carbon reduction target for 2030, when the existing coal-fired generating units gradually retire in the coming decade, the two power companies will replace them with generating units using natural gas and non-fossil fuel sources.

3. For the two new gas-fired generating units approved under the 2018-23 Development Plans, one will be constructed by CLP Power Hong Kong Limited while the other will be constructed by The Hongkong Electric Company, Limited. The estimated total capital expenditures are about \$6 billion and \$5 billion respectively.
4. The EPD is now discussing the specific contents and implementation details of the pilot scheme on green ferry with relevant departments. The specific implementation plan is not available for the time being. We will consult the trade and the relevant committees of the Legislative Council after working out the implementation plan of the pilot scheme.

The percentages of emissions from local major air pollutant emission sources
in Hong Kong's total emissions from 2012 to 2016*

2016						
Pollutant emission source	Sulphur dioxide	Nitrogen oxides	Respirable suspended particulates	Fine suspended particulates	Volatile organic compounds	Carbon monoxide
Public electricity generation	46%	29%	14%	9%	2%	6%
Road transport	<1%	18%	10%	11%	18%	54%
Navigation	49%	37%	38%	44%	17%	24%
Civil aviation	3%	7%	1%	1%	2%	7%
Other combustion sources	1%	10%	17%	20%	3%	9%
Non-combustion sources	-	-	20%	14%	58%	-
2015						
Public electricity generation	37%	28%	12%	8%	2%	6%
Road transport	<1%	19%	11%	12%	19%	55%
Navigation	59%	36%	40%	46%	15%	22%
Civil aviation	3%	6%	1%	1%	2%	7%
Other combustion sources	1%	10%	16%	19%	3%	10%
Non-combustion sources	-	-	20%	13%	59%	-
2014						
Public electricity generation	53%	34%	18%	11%	2%	7%
Road transport	<1%	19%	13%	15%	18%	54%
Navigation	44%	33%	38%	45%	17%	23%
Civil aviation	2%	5%	1%	1%	2%	6%
Other combustion sources	1%	8%	14%	17%	3%	9%
Non-combustion sources	-	-	16%	11%	58%	-
2013						
Public electricity	47%	31%	16%	10%	2%	6%

generation						
Road transport	<1%	23%	15%	17%	19%	62%
Navigation	51%	33%	38%	45%	14%	19%
Civil aviation	1%	5%	1%	1%	2%	5%
Other combustion sources	1%	9%	14%	17%	3%	9%
Non-combustion sources	-	-	16%	11%	60%	-
2012						
Public electricity generation	47%	29%	17%	10%	2%	5%
Road transport	<1%	27%	15%	17%	21%	71%
Navigation	50%	33%	39%	46%	13%	14%
Civil aviation	1%	5%	1%	1%	2%	4%
Other combustion sources	1%	7%	12%	15%	3%	6%
Non-combustion sources	-	-	16%	11%	60%	-

Notes: “-” represents not applicable

* The percentages may not add up to 100 due to rounding

- End -

CONTROLLING OFFICER'S REPLY**ENB226****(Question Serial No. 3465)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding collection of waste medicine in Hong Kong, will the Government advise this Committee on the following:

- (1) the quantity of medicines disposed of at landfills in each of the past 5 years;
- (2) the existing places for collecting waste medicine from the public;
- (3) whether there are any programmes for collecting waste medicine from the community. If yes, what are the details? If not, what are the reasons?
- (4) the quantity of waste medicine collected from organisations like hospitals and clinics;
- (5) the quantity of medicines disposed of by institutions;
- (6) the quantity and expenditure involved in handling waste medicine by the Government?

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 56)Reply:

(1)

In the past 5 years, the quantity of medicines disposed of at landfills is tabulated as follows:

Year	Quantity of medicines disposed of at landfills (tonnes)
2014	108
2015	0
2016	9
2017	4
2018	3

Apart from handling waste medicine by disposal at landfills, waste medicine can also be treated by incineration at the Chemical Waste Treatment Centre. In the past 5 years, the quantity of waste medicine treated at the Chemical Waste Treatment Centre is tabulated as follows:

Year	Quantity of waste medicine treated at the Chemical Waste Treatment Centre (tonnes)
2013	296
2014	370
2015	504
2016	695
2017	681
2018	848

(2) and (3)

In accordance with the Waste Disposal Ordinance (Cap. 354), waste medicine and injections generated by healthcare institutions such as hospitals and clinics are classified as chemical waste. The storage, collection, transport and disposal of such waste has to meet the stringent requirements laid down in the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C). These control measures do not apply to the disposal of medicine and injections arising from households. Given the generally small quantities of household residual medicine and injections, they are currently being handled together with general domestic solid wastes. The Government has no plans to provide household residual medicines collection services.

For safe medication practice, the Department of Health (DH) and the Hospital Authority (HA) would not use medicines returned from patients and would not collect unused medicines from patients. The DH and the HA would offer necessary advice upon patients' enquiries on disposal of unused medicines. The HA has established procedures for its pharmacies to dispose of medicines as chemical waste in accordance with the relevant regulation under the Waste Disposal Ordinance.

(4) and (5)

In the past 5 years, the quantity of waste medicine collected from organisations like hospitals, clinics and institutions is as follows:

Year	Quantity of waste medicine collected (tonnes)	
	From hospital and clinics [#]	From institutions [*]
2014	44	6
2015	45	7
2016	50	9
2017	58	11
2018	64	12

[#]including hospitals, clinics and other medical services.

^{*}including Residential Care Homes, Child Care Centres, Youth and Community Service Centres, and other Social Welfare Organisations

(6)

The quantity of waste medicine handled by the Government is listed at part (1) above. The expenditure involved in handling waste medicine by the Government is tabulated as follows:

Year	Expenditure involved in handling waste medicine at landfills (\$)	Expenditure involved in handling waste medicine at the Chemical Waste Treatment Centre (\$)
2013-14	12,900	2,400,200
2014-15	0	2,809,900
2015-16	1,100	3,959,100
2016-17	500	5,120,300
2017-18	400	6,596,400

- End -

CONTROLLING OFFICER'S REPLY**ENB227****(Question Serial No. 5487)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

In recent years, a number of waste management infrastructure facilities have commenced operation. The Department has also awarded a number of Design, Build and Operate (DBO) contracts for the relevant projects. In this connection, would the Administration provide in tabular form the following details of the contracts for the waste management facilities which were awarded under the DBO arrangement:

- Name of contract
- Name of contractor
- The value of the contract awarded
- Brief description of the contract
- Operating requirements (e.g. relevant indicators of waste management)
- Payment mechanism and monitoring mechanism

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 232)Reply:

The Environmental Protection Department (EPD) has developed a number of waste management facilities under the Design, Build and Operate (DBO) contract arrangement. The facilities that have commenced operation in the past 5 years and their contract details are as follows:

Name of contract (Commencement date of operation of the facility)	Contractor	Contract value	Brief description of the contract	Operating requirements	Payment mechanism and monitoring mechanism
Sludge Treatment Facility (STF) EP/SP/58/08 (1 April 2015)	VW-VES (HK) Limited	HK\$8,212.26 million	Design, build and operate a STF at Tsang Tsui, Tuen Mun	The design capacity of the STF is 2 000 tonnes of sewage sludge per day	• The part on construction works of the contract is paid through the milestone payment approach, while the

Name of contract (Commencement date of operation of the facility)	Contractor	Contract value	Brief description of the contract	Operating requirements	Payment mechanism and monitoring mechanism
					<p>part on operation of the contract involves 2 payments, namely the fixed operation fee and the quantity-based treatment fee.</p> <ul style="list-style-type: none"> Contract monitoring involves 2 areas: environmental performance and operational performance. During the construction works period, the resident site staff, the independent engineering consultant(s) and the EPD staff are responsible for overseeing the contractor; in the operational phase, the EPD on-site staff is responsible for monitoring the daily operation to ensure the service of the contractor complies with the contract requirements. The contractor is required to submit report monthly. The EPD will meet with the contractor monthly to review their service performance.
<p>Waste Electrical and Electronic Equipment (WEEE) Treatment Facility EP/SP/69/12 (21 October 2017)</p>	<p>ALBA Integrated Waste Solutions (Hong Kong) Limited</p>	<p>HK\$1,727.94 million</p>	<p>Design, build and operate a WEEE Treatment Facility located at the EcoPark, Tuen Mun</p>	<p>The design capacity of the WEEE Treatment Facility is 30 000 tonnes of waste regulated electrical equipment (REE) per year</p>	<ul style="list-style-type: none"> The part on construction works of the contract is paid through the milestone payment approach. For the operation part, the treatment fee is calculated based on the weight of various waste REE treated

Name of contract (Commencement date of operation of the facility)	Contractor	Contract value	Brief description of the contract	Operating requirements	Payment mechanism and monitoring mechanism
					<p>each month.</p> <ul style="list-style-type: none"> Contract monitoring involves 2 areas: environmental performance and operational performance. During the construction works period, the resident site staff, the independent engineering consultant(s) and the EPD staff are responsible for overseeing the contractor; in the operational phase, the EPD on-site staff is responsible for monitoring the daily operation to ensure the service of the contractor complies with the contract requirements. The contractor is required to submit report monthly. The EPD will meet with the contractor monthly to review their service performance.
Organic Waste Treatment Facilities Phase 1 EP/SP/61/10 (1 July 2018)	OSCAR BIOENERGY JOINT VENTURE	HK\$2,380.63 million	Design, build and operate a Food Waste Recycling Facility located at Siu Ho Wan, Lantau	The design capacity of the Food Waste Recycling Facility is 200 tonnes of food waste per day	<ul style="list-style-type: none"> The part on construction works of the contract is paid through the milestone payment approach, while the part on operation of the contract involves two payments, namely the fixed operation fee and the quantity-based treatment fee. Contract monitoring involves 2 areas: environmental performance and

Name of contract (Commencement date of operation of the facility)	Contractor	Contract value	Brief description of the contract	Operating requirements	Payment mechanism and monitoring mechanism
					<p>operational performance.</p> <ul style="list-style-type: none"> • During the construction works period, the resident site staff, the independent engineering consultant(s) and the EPD staff are responsible for overseeing the contractor; in the operational phase, the EPD on-site staff is responsible for monitoring the daily operation to ensure the service of the contractor complies with the contract requirements. The contractor is required to submit report monthly. The EPD will meet with the contractor monthly to review their service performance.

- End -

CONTROLLING OFFICER'S REPLY

ENB228

(Question Serial No. 5488)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

In recent years, the Department has engaged contractors under service contracts to provide waste management and collection services. For instance, glass management contracts were awarded in the past 2 years, and the scheduled pilot scheme on free collection and recycling services of waste plastics will be implemented. In this connection, would the Administration please provide in tabular form the following details of the contracts in which contractors were engaged to provide collection service under service contracts:

- Name of contracts
- Name of contractors
- The value of the contract awarded
- Brief description of the contract
- Operating requirements (e.g. relevant indicators of waste management)
- Payment mechanism and monitoring mechanism

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 233)

Reply:

The details of the contracts that the Environmental Protection Department (EPD) awarded in the past 2 years and is preparing to award in which contractors were/will be engaged under service contracts to provide waste management and collection service are set out in the following tables:

1. Awarded contracts

Name of contract	Glass management contract - Hong Kong Island and Islands	Glass management contract - New Territories	Glass management contract - Kowloon												
Name of contractor	Baguio Waste Management and Recycling Limited	Baguio Waste Management and Recycling Limited	Hong Kong Glass Reborn Limited												
Value of contract awarded (\$m)	170.8	102.5	91.5												
Brief description of contract	Each glass management contract has a contract period of 5 years. Under the contract, the contractor is required to provide glass container management service within its responsible catchment region, including establishing a glass container collection network, providing glass container collection service, arranging treatment of glass containers for reuse and recycling, and managing the overall service quality so as to ensure compliance with the contractual requirements.														
Operating requirements (e.g.: targets for processing relevant waste)	<p>The major targets for operating performance in the first year under the 3 glass management contracts are set out in the table below:</p> <table border="1"> <thead> <tr> <th>Glass management contract</th> <th>Target for operating performance in recovery quantity (tonnes)</th> <th>Target for coverage of liquor-licensed premises (%)</th> </tr> </thead> <tbody> <tr> <td>Hong Kong Island and Islands</td> <td>3 330</td> <td>24%</td> </tr> <tr> <td>New Territories</td> <td>2 340</td> <td>24%</td> </tr> <tr> <td>Kowloon</td> <td>3 330</td> <td>24%</td> </tr> </tbody> </table>			Glass management contract	Target for operating performance in recovery quantity (tonnes)	Target for coverage of liquor-licensed premises (%)	Hong Kong Island and Islands	3 330	24%	New Territories	2 340	24%	Kowloon	3 330	24%
Glass management contract	Target for operating performance in recovery quantity (tonnes)	Target for coverage of liquor-licensed premises (%)													
Hong Kong Island and Islands	3 330	24%													
New Territories	2 340	24%													
Kowloon	3 330	24%													
Payment mechanism and monitoring mechanism	<p>The Government will pay a service fee based on the quantity of glass recyclables collected and properly treated by the contractor.</p> <p>As for the monitoring mechanism, both glass management contractors have submitted their operation plans to the EPD and submit reports to the EPD every month according to the contractual requirements. The EPD holds regular meetings with the contractors each month to review their service performance. In addition, the contractors are required to submit collection records, total weight collected, weighing data, etc. to the EPD once every half a month for audit on a sampling basis. The EPD also conducts regular and surprise inspections to check on the contractors' collection of waste glass containers and their glass container treatment facilities.</p>														

2. Contract under planning

Name of contract	Contract for Pilot Scheme on Free Collection and Recycling Services of Waste Plastics from Non-commercial and Non-industrial Sources
Name of contractor	Not applicable
Value of contract awarded (\$m)	Not applicable
Brief description of contract	<p>To roll out a two-year Pilot Scheme on Collection and Recycling Services of Waste Plastics from Non-commercial and Non-industrial Sources (Pilot Scheme) in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin). The major scope of services includes the following:</p> <ul style="list-style-type: none"> ● Providing free collection service for waste plastics from non-commercial and non-industrial sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts; ● Setting up mobile collection points within the service areas of the Pilot Scheme to provide collection services for households without the provision of recycling facilities; ● Collecting waste plastics for further treatment, then producing recycled raw materials or products to be exported or supplied to the local market, so as to ensure that the waste plastics collected are properly handled; and ● Promoting the services and encouraging and educating the public to recycle properly. <p>We are tendering the waste plastics collection service of the Eastern District, with a view to rolling out the services in 2019. We will also invite tenders for waste plastics collection service in Kwun Tong and Sha Tin districts one after another later.</p>
Operating requirements (e.g.: targets for processing relevant waste)	<p>After making reference to the quantities of waste plastics collected from the existing recycling network (including the Programme on Source Separation of Domestic Waste, the Community Recycling Centres and the Community Green Stations) and the cyclical changes in the relevant data, we have set a baseline recycling quantity for each district under the Pilot Scheme as a target for processing. Besides, the service fee will be increased in tiers according to the quantity in excess of the baseline so as to encourage the contractors to proactively increase the quantities of waste plastics recovered and processed.</p>
Payment mechanism and monitoring mechanism	<p>Payment of a service fee will be based on the actual quantity of recycled raw materials or products that the contractors produce after treatment of waste plastics collected.</p> <p>The contractor is required under the contract to submit relevant operation plan and records (including weekly enquiry and service registration records, monthly operating reports and annual audit reports). In parallel, staff of the EPD will conduct routine and surprise inspections on the waste plastics collection and treatment processes to ensure that the collection and treatment services provided by the contractor comply with the contractual and relevant legal requirements.</p>

- End -

CONTROLLING OFFICER'S REPLY

ENB229

(Question Serial No. 5489)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Government has awarded a number of leases for lots in EcoPark Phase I and Phase II for waste recycling. In this connection, would the Administration please provide the following details of the relevant leases in tabular form:

- Lot
- Name of tenant
- Rent and lot area
- Types of waste being recovered and brief description of the technologies adopted
- The estimated daily quantity of waste recovered for the lease awarded, the actual average quantity of waste recovered since the commencement of operation, the percentage of the quantity of waste recovered by the tenant in the total quantity of that type of waste disposed of, and the percentage of the quantity of waste recovered by the tenant in the total quantity of that type of waste recovered
- Requirements of the lease on the tenant regarding the recycling service and the monitoring mechanism

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 234)

Reply:

The quantities of recyclables processed at the EcoPark in 2017 and 2018 reached 180 000 tonnes and 213 000 tonnes respectively. The recyclables with the highest quantities were waste metals, construction waste, waste electrical and electronic equipment and food waste.

Currently, a total of 12 land lots in the EcoPark have been let to private recyclers. The details are as follows:

Lot	Tenant	Lot area and monthly rent	Types of waste being recovered and brief description of the technologies adopted and promised throughput	Actual quantity processed in 2017 ⁽¹⁾	Percentage of the quantity processed in the total quantity of that type of waste disposed of in the territory in 2017	Percentage of the quantity processed in the total quantity of that type of waste recovered in the territory in 2017
Phase 1 Tenants						
T1	HP Telford Envirotech Group Limited	4 920m ² \$123,000	Sorting and recycling of waste plastics into strapping bands and other products 600 tonnes each month	Not applicable (The lease started in June 2018)	Not applicable	Not applicable
T2 and T3	Shiu Wing Steel Ltd.	9 500 m ² \$200,000	Sorting and shredding of waste ferrous metals, then sending them to Southeast Asia for the manufacturing of construction materials such as steel reinforcement bars 3 300 tonnes each month	35 100 tonnes	38.17%	4.21%
T4	Hong Kong Biomass (Wood) Collect and Recycle Company Limited	5 000 m ² \$128,000	Shredding of wooden pallets and wooden boards into wood chips for the manufacturing of wood fuel pellets 500 tonnes each month	750 tonnes (The lease started in May 2017)	0.69%	59.04%
T5	Champway Technology Ltd.	6 000 m ² \$90,500	Recycling of waste cooking oil collected from restaurants and food factories into biodiesel 610 tonnes each month	4 800 tonnes	Not applicable (No statistics on the quantity of waste cooking oil disposed of)	2.4%
T6	Baguio Waste Management & Recycling Ltd.	6 500 m ² \$150,000	Recycling of waste plastic bottles into plastic flakes, resins and other products 900 tonnes each month	Not applicable (The tenant is planning and designing the plant)	Not applicable	Not applicable

Lot	Tenant	Lot area and monthly rent	Types of waste being recovered and brief description of the technologies adopted and promised throughput	Actual quantity processed in 2017 ⁽¹⁾	Percentage of the quantity processed in the total quantity of that type of waste disposed of in the territory in 2017	Percentage of the quantity processed in the total quantity of that type of waste recovered in the territory in 2017
Phase 2 Tenants						
P1, P5, P6 and P7	Rocsky International Limited	19 000 m ² \$399,000	Recycling of local waste paper collected for the manufacturing of high-strength corrugated paper, semi-dry pulp and other materials 25 000 tonnes each month	Not applicable (The tenant is planning and designing the plant)	Not applicable	Not applicable
P8	On Fat Lung Innovative Resources Ltd.	4 400 m ² \$51,637	Recycling of waste rubber tyres into rubber pavers and related products 190 tonnes each month	Not applicable (The tenant commenced operation in December 2017)	Not applicable	Not applicable
P9 and P10	Hong Kong Batteries Recycling Centre Limited	10 000 m ² \$229,498	Dismantling of waste lead-acid batteries into recyclable components, extraction of lead components for conversion into lead slurry 300 tonnes each month	Not applicable (The tenant is installing the processing equipment)	Not applicable	Not applicable
P11	K. Wah Construction Products Ltd.	10 000 m ² \$172,123	Recycling of construction waste/waste glass into eco-pavers 3 500 tonnes of construction waste each month/ 183 tonnes of waste glass each month	8 600 tonnes of construction waste/ 1 700 tonnes of waste glass	Construction waste 0.56% Waste glass 1.60%	Construction waste 0.05% Waste glass 15.39%
P12	South China Reborn Resources (Zhongshan) Company Limited	10 000 m ² \$204,457	Recycling of food waste into high protein supplement for animal feed 2 800 tonnes each month	7 000 tonnes	0.52%	47.85%

Lot	Tenant	Lot area and monthly rent	Types of waste being recovered and brief description of the technologies adopted and promised throughput	Actual quantity processed in 2017 ⁽¹⁾	Percentage of the quantity processed in the total quantity of that type of waste disposed of in the territory in 2017	Percentage of the quantity processed in the total quantity of that type of waste recovered in the territory in 2017
P13	Chung Yue Steel Group Company Limited	10 000 m ² \$206,548	Sorting and shredding of waste ferrous metals, then sending them to Southeast Asia for the manufacturing of construction materials such as steel reinforcement bars 4 500 tonnes each month	118 500 tonnes	128.86% ⁽²⁾	14.21%
P14	E. Tech Management (HK) Ltd	5 000 m ² \$91,799	Repair and dismantling of waste electrical and electronic equipment components into different recyclable components 450 tonnes each month	Not applicable (The tenant commenced operation in March 2018)	Not applicable	Not applicable

Note:

(1) As the figures for the total quantities of waste disposed of and recovered in the territory in 2018 are still under compilation, we can only provide the figures for 2017.

(2) As waste metals are relatively easier to sort and collect at source and have a higher recycling value in the market, the quantity of waste metals recovered is usually higher than the quantity disposed of. The annual quantity of waste metals disposed of in 2017 was about 92 000 tonnes, whereas the quantity recovered was about 834 000 tonnes, and therefore the percentage was higher than 100%.

The Environmental Protection Department (EPD) has been closely monitoring the development and operation of the tenants' recycling businesses in the EcoPark. The operation of the tenants of the EcoPark must comply with the relevant laws and regulations and must meet the lease requirements, including the types of waste recovered, recycling processes and products, promised throughput, milestones related to site construction and commencement of operation and business and promised amount of capital invested, etc. In general, if the tenants encounter any development or operational problem, the EPD will first take proactive steps to follow up and understand their difficulties in order to provide appropriate assistance. In case of breach of any of the conditions in the lease agreements by the tenants, the EPD will issue warning letters to the tenants and consider taking appropriate legal actions, including termination of the lease agreements.

- End -

CONTROLLING OFFICER'S REPLY

ENB230

(Question Serial No. 5501)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Environment Bureau promulgated *A Food Waste and Yard Waste Plan for Hong Kong 2014-2022* (the Plan) in 2014, which sets out the Government's strategies to deal with organic waste. Separately, super typhoon Mangkhut caused extensive and severe damage to Hong Kong last year. There was a huge amount of broken or fallen trees, generating a high mass of tree waste. In this connection, what are the details of the Department's measures to improve and strengthen the treatment of yard waste in future? What are the estimated manpower and expenditure of the relevant plans?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 246)

Reply:

Last year, super typhoon Mangkhut caused extensive and severe damage to Hong Kong, resulting in a huge amount of broken or fallen trees and hence a surge in the volume of tree debris. The Government had to respond swiftly with a view to clearing up the tree debris as quickly as possible. To facilitate and expedite the clearance work conducted across the territory, the Government set up a temporary collection area in the Kai Tak Development Area for temporary stockpiling of fallen trees and branches collected and delivered by various sectors. From 21 September to 10 November 2018, the collection area received a total of around 8 200 truckloads of tree debris. The Government was well aware beforehand that such debris would require prompt treatment, otherwise it might cause environmental hygiene nuisance including mosquito breeding. The Environmental Protection Department (EPD) thus started to collaborate with the departments concerned from 28 September last year in delivering the tree debris in the collection area to appropriate facilities for treatment or disposal. The delivery exercise was completed on 27 November last year, with about 20 480 tonnes of tree debris delivered to the West New Territories (WENT) Landfill for disposal.

To speed up the handling of the large amount of tree debris generated during the attack of super typhoon Mangkhut and facilitate onward recycling, the EPD has thoroughly explored different proposals to utilise yard waste resource effectively as far as practicable, with

various feasible treatment trials in progress. For example, the EPD has procured an industrial grade wood shredder, which is placed on the government land near the T • PARK in Tuen Mun. The relevant departments have also delivered some 3 000 tonnes of tree debris (including some 2 300 tonnes of the tree debris temporarily stored in the collection area in Kai Tak) to the above site in order to have the tree debris shredded into wood chips for various uses. As at March 2019, the EPD has recovered/shredded about 1 200 tonnes of tree debris, of which about 610 tonnes of the shredded wood have been used as biomass solid fuel; about 130 tonnes have been used as soil cover at landfills; about 20 tonnes have been used as bulking agent for composting or as mulch for planting purposes; about 30 tonnes of wood logs have been given to interested parties, members of the public or local art creators and horticulturists for reuse or upcycling, including production of various displays for exhibition at the Hong Kong Flower Show 2019. There are about 400 tonnes of wood chips left pending arrangement for various uses. Besides, during the recovery/shredding of tree debris, we discovered that much tree debris was mixed with other materials, such as stones, metals, etc. Therefore, some 600 tonnes of related waste in the tree debris which was identified as unsuitable for recycling and reuse after sorting has been delivered to the WENT Landfill for disposal. Currently, sorting, shredding and recovery of the tree debris are still underway.

In the long run, the EPD will continue to encourage government departments to adhere to the principle of reduce, reuse and recycle in handling yard waste, and adopt various measures including installation of wood shredders and garden composters, to treat, recycle and reuse yard waste on site as far as practicable. The EPD will continue to work with the Development Bureau and relevant government departments in exploring the construction of yard waste shredding and recycling facilities, and consider the introduction of diverse proposals such as production of biochar, biomass solid fuel, bulking agent for composting, mulch for planting purposes and soil cover at landfills, etc. Subject to the outcome of the above trials, the EPD will consider incorporating these proposals in our long-term strategies on yard waste management. Moreover, the shredded wood or wood logs from the yard waste collected by government departments are available to interested parties or members of the public free of charge for suitable recycling or upcycling.

At present, the management of yard waste under the EPD is absorbed by deployment of its existing resources and manpower. The EPD will provide 2 additional non-directorate professional staff (including 1 Environmental Protection Officer and 1 Environmental Protection Inspector) to undertake yard waste management in future. The estimated expenditure for the above measures is about \$10 million in 2019-20.

- End -

CONTROLLING OFFICER'S REPLY

ENB231

(Question Serial No. 6022)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (-) Not Specified

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding its work in relation to the Code on Access to Information, will the Administration advise this Committee on the following:

1) concerning the requests for information under the Code on Access to Information received by the Environmental Protection Department for which only some of the required information was provided, please state in tabular form: (i) the content of the requests for which only some of the required information was provided; (ii) the reasons for providing some of the information only; and (iii) how the requests were eventually handled.

Year

(i) Content of the requests for which only some of the required information was provided	(ii) Reasons for providing some of the information only	(iii) How the requests were eventually handled

2) concerning the requests for information under the Code on Access to Information received by the Environmental Protection Department for which the required information was not provided, please state in tabular form: (i) the content of the requests refused; (ii) the reasons for refusal; and (iii) how the requests were eventually handled.

Year

(i) Content of the requests refused	(ii) Reasons for refusal	(iii) How the requests were eventually handled

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 266)

Reply:

Of the requests for information under the Code on Access to Information (the Code) received by the Environmental Protection Department (EPD) from January to September 2018, there were 2 requests for which only some of the required information was provided and 3 requests for which the required information could not be provided. In accordance with Part 2 of the Code, the reasons for refusal are as follows:

1) Year: January to September 2018

(i) Content of the requests for which only some of the required information was provided	(ii) Reasons for providing some of the information only	(iii) How the requests were eventually handled
Information about a landfilling case in Pui O	Since information on law enforcement, legal proceedings and public safety was involved, some of the information could not be disclosed (paragraph 2.6 of the Code)	The EPD provided the rest of the required information and explained the reasons for not providing some of the information. There were no requests for reviews from the enquirers.
Western Harbour Crossing study report	Since information on management and operation of the public service, as well as internal discussion and advice was involved, some of the information could not be disclosed (paragraphs 2.9 and 2.10 of the Code)	

2) Year: January to September 2018

(i) Content of the requests refused	(ii) Reasons for refusal	(iii) How the requests were eventually handled
The costs of Shek Kwu Chau incinerator	It is because third party information and information on business affairs was involved (paragraphs 2.14 and 2.16 of the Code).	The EPD replied to the enquirers with the reasons for not providing the information. There were no requests for reviews from the enquirers.
The assessment standards of the written examination for Assistant Environmental Protection Officers	It is because information on public employment was involved (paragraph 2.11 of the Code)	
Information about the asbestos investigation and analysis report	It is because information on law enforcement and legal proceedings, as well as third	

submitted company	by a	party information was involved (paragraphs 2.6 and 2.14 of the Code)	
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- End -

CONTROLLING OFFICER'S REPLY

ENB232

(Question Serial No. 6258)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Environmental Protection Department launched the Reusable Tableware Lending Programme in December last year. Please list the quantity of materials purchased since the launch of the programme and the relevant expenditure, and provide the usage frequency of this service

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 306)

Reply:

The Environmental Campaign Committee (ECC) and the Environmental Protection Department (EPD) launched the Reusable Tableware Lending Programme for Large-scale Events with sponsorship from the Environment and Conservation Fund in December last year. A total of 5 500 sets of reusable tableware (each comprising a plastic cup, a bowl, a spoon, a fork and a pair of chopsticks) and 200 storage boxes for the tableware have been purchased since the launch of the Programme. As at 28 February 2019, the ECC has provided tableware lending service for 30 large-scale events, in which over 108 000 items of disposable tableware have been saved in total. The total expenditure (including the costs of procurement, delivery, collection, counting and cleaning of reusable tableware, etc.) is about \$240,000.

- End -

CONTROLLING OFFICER'S REPLY**ENB233****(Question Serial No. 6259)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

What were the details of the implementation and enforcement of the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment since its full implementation last year? What were the manpower and expenditure for the relevant scheme? Please provide the quantities of various types of electrical appliances disposed of and recovered under the scheme.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 307)Reply:

The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) covering the regulated electrical equipment (REE) (i.e. air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors) was fully implemented in 2018. Under the WPRS, suppliers who distribute REE are required to pay a recycling levy for REE distributed in Hong Kong, whilst sellers of REE are required to arrange free statutory removal service for consumers to dispose of an equipment of the same class that they intend to abandon. The disposal licensing control, import and export permit control and landfill disposal ban in respect of e-waste have also come into effect. The Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK), developed by the Government to underpin the WPRS, has also come into full operation. In 2018, the WEEE • PARK processed a total of about 10 830 tonnes of waste REE. The breakdown is as follows:

Waste REE	Amount processed (tonnes) in 2018
Television	1 270
Refrigerator	2 230
Air-conditioner	1 420
Washing machine	4 595
Computer and computer products	1 315
Total	10 830

Regarding enforcement, since the implementation of the WPRS on 1 August 2018 and up to early March 2019, the Environmental Protection Department (EPD) conducted 99 inspections on the REE suppliers regulated under the WPRS, and issued 8 written warnings. As for the REE sellers, a total of 1 191 inspections were conducted, and 9 cases were successfully prosecuted with a total fine of \$22,000.

For the disposal licensing and import and export control of e-waste under the WPRS, the EPD has issued a total of 10 waste disposal licences for REE to the trade (including the WEEE • PARK operator) and has not issued any import and export permit. As at early March 2019, the EPD conducted a total of 16 inspections at the above 10 licensed facilities, but did not find any non-compliance. Besides, the EPD conducted a total of over 130 inspections at the open recycling sites which did not have disposal licences, and inspected over 220 imported containers. It was found that a total of 5 open recycling sites were suspected of illegal storage of e-waste or contravening the Waste Disposal (Chemical Waste) (General) Regulation, and 15 containers were suspected of illegal import of chemical waste and other hazardous e-waste. The EPD is conducting follow-up investigations and collecting evidence in respect of the above cases.

Separately, the EPD has been vigorously combating illegal disposal of waste, especially the disposal of construction waste and commercial and industrial waste. Apart from conducting irregular surprise inspections at waste disposal sites in various districts, the EPD has also installed surveillance camera systems at some waste disposal black spots to facilitate law enforcement. The EPD has also stepped up efforts in combating illegal disposal of e-waste. Before and after the WPRS took effect, the EPD joined other relevant government departments to conduct inspections at the waste disposal black spots and recycling sites across the territory to prevent possible illegal disposal of e-waste. In addition, if abandoned e-waste is found on street, the Food and Environmental Hygiene Department will also conduct prompt clearance. At present, the EPD has installed surveillance camera systems at 80 illegal waste disposal black spots, and is preparing to gradually expand the coverage to a total of 115 black spots in 2019 to facilitate combating illegal disposal of waste.

As regards the quantities of various types of electrical appliances disposed of and recovered under the WPRS, the 10 licensees issued with waste disposal licences for REE are required to submit statistics on the amount of waste REE disposed of to the EPD on a quarterly and annual basis. As the first quarterly report will be submitted in mid-April 2019, apart from the WEEE • PARK, the EPD does not have the relevant statistics of the remaining 9 licences for the time being. As the relevant statistics on the local disposal of all waste electrical and electronic equipment (including waste REE) in 2018 are still being compiled, they are not available in the meantime.

The Waste Management Policy Division of the EPD is responsible for handling various policies and projects on waste management, including implementation of the 3 producer responsibility schemes on waste electrical and electronic equipment, glass beverage containers and plastic beverage containers. There is no breakdown of the manpower resources involved in the implementation of these schemes. The EPD will create 12 permanent posts (including Environmental Protection Officers and Environmental

Protection Inspectors) in 2019-20 to cope with the additional workload arising from the development and implementation of the relevant schemes.

- End -

CONTROLLING OFFICER'S REPLY

ENB234

(Question Serial No. 6260)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Environmental Protection Department (EPD) plans to introduce a pilot scheme in 3 districts to offer free collection service for all types of waste plastics from non-commercial and non-industrial sources. The EPD will also carry out a pilot scheme to provide free collection of food waste generated from commercial and industrial (C&I) sources. What are the details of the estimated expenditures, daily quantities of waste collected, and other service indicators of the 2 pilot schemes mentioned above?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 308)

Reply:

Information on the 2 pilot schemes is as follows:

Pilot Scheme on Free Collection and Recycling Services of Waste Plastics

The Environmental Protection Department (EPD) plans to roll out a two-year Pilot Scheme on Collection and Recycling Services of Waste Plastics (Pilot Scheme) in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin). The major scope of services includes the following:

- Providing free collection service for waste plastics from non-commercial and non-industrial sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts;
- Setting up mobile collection points within the service areas of the Pilot Scheme to provide collection services for households without the provision of recycling facilities;
- Collecting waste plastics for further treatment, then producing recycled raw materials or products to be exported or supplied to the local market, so as to ensure that the waste plastics collected are properly handled; and
- Promoting the services and encouraging and educating the public to recycle properly.

We are tendering the waste plastics collection service of the Eastern District, with a view to rolling out the services this year. We will also invite tenders for waste plastics collection service in Kwun Tong and Sha Tin districts one after another later. In 2019-20, the estimated total expenditure for the 3 pilot schemes is about \$72 million.

After making reference to the quantities of waste plastics collected from the existing recycling network (including the Programme on Source Separation of Domestic Waste, the Community Recycling Centres and the Community Green Stations) and the cyclical changes in the relevant data, we have set a baseline recycling quantity for each district under the Pilot Scheme as a target for processing. Besides, the service fee will be increased in tiers according to the quantity in excess of the baseline so as to encourage the contractors to proactively increase the quantities of waste plastics recovered and processed.

Pilot Scheme on Free Collection of Food Waste

To promote proper recycling of food waste and achieve the target of turning waste to energy, the Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. The pilot scheme will mainly involve collection of food waste generated by commercial and industrial (C&I) sectors, including the continued provision of food waste collection service for public markets and cooked food venues under the Food and Environmental Hygiene Department (FEHD), as well as wet markets and shopping centres managed by the Hong Kong Housing Authority (HA). The pilot scheme will also include free food waste collection service for all primary and secondary schools, and tertiary institutions in Hong Kong starting from the second quarter of this year through those school lunch suppliers or canteens of the tertiary institutions which are interested to join the scheme.

Organic Resources Recovery Centre Phase 1 (O • PARK1) has come into operation since 1 July 2018, with a daily food waste treatment capacity of 200 tonnes. Since then, 40 public markets and cooked food venues under the FEHD and 9 shopping centres and wet markets under the HA have started source separation and collection of food waste. The food waste collection contractor of the FEHD delivers source-separated food waste from the above 49 premises to the O • PARK1 for treatment every day. We are discussing with the relevant government departments on extending the free food waste collection service to other public markets, cooked food venues and shopping centres under the FEHD and the HA and other facilities, for example, more wholesale markets under the Agriculture, Fisheries and Conservation Department and hospitals under the Hospital Authority, etc. under the above pilot scheme.

Besides, in February this year, the EPD invited school lunch suppliers to participate in the pilot scheme on free food waste collection service by collecting the food waste generated from their supply of lunch for primary and secondary schools and food left uneaten by students, and delivering such food waste to the O • PARK1. About 10 school lunch suppliers have indicated their interest in participating in the above pilot scheme at present. The contractor of the O • PARK1 engaged by the EPD is getting in contact with the interested school lunch suppliers to discuss the food waste collection arrangements. It is

expected that the food waste collection service can be launched in the second quarter of this year.

In addition, the EPD is getting in touch with the canteens of the tertiary institutions to discuss various feasible options to provide free food waste collection service for them under the pilot scheme. Most tertiary institutions have indicated their interest in participating in the above pilot scheme.

We will also explore the provision of free food waste collection service for some of the C&I establishments which have been proactively delivering their food waste from different districts to the O • PARK1 at present. The number of establishments involved and the scale of collection are subject to the treatment capacities of the food waste recycling facilities.

The EPD is working with the Drainage Services Department to examine the use of existing and planned sewage treatment works (STW) to take forward “food waste/sewage sludge anaerobic co-digestion” technology. The first “food waste/sewage sludge anaerobic co-digestion” trial scheme (Trial Scheme) will be carried out at the Tai Po STW and can treat 50 tonnes of food waste per day. We are planning to allocate a portion of the treatment capacities of the O • PARK1 and the Trial Scheme at the Tai Po STW to provide free collection and recycling services for a portion of the domestic food waste. Priority will be given to food waste from housing estates with experience in food waste separation and recycling, such as the 35 private housing estates that have participated in the “Food Waste Recycling Projects in Housing Estates” under the Environment and Conservation Fund (ECF). These housing estates have received funding support from the ECF for installing on-site food waste treatment facilities, organising relevant educational and promotional activities, and putting source separation and recycling of food waste into practice. We will take the initiative to invite these housing estates to join the aforesaid pilot scheme on free food waste collection service.

Apart from that, we are planning to extend the “food waste/sewage sludge anaerobic co-digestion” trial scheme to cover the Sha Tin STW for commissioning in 2022. Having regard to the experience gained from the above pilot scheme, we will conduct a trial on collection of domestic food waste in Sha Tin to test the operational and facilitation requirement for carrying out separation at source, collection and recycling of domestic food waste at different types of private and public housing estates, villages and domestic/commercial buildings. We are seeking funding approval from the Legislative Council for the construction of the Organic Resources Recovery Centre Phase 2 (ORRC2). Upon commissioning of the ORRC2, we will not only be able to extend the free food waste collection service to cover more C&I establishments, but will also allocate part of its treatment capacity to recycle the domestic food waste collected for free from the households and villages within the area.

The implementation schedule of the above free food waste collection services will largely depend on the completion dates of the food waste recycling facilities. With the gradual completion of such facilities in future, we plan to extend the food waste collection services to cover all districts and sectors in Hong Kong in a prompt manner.

The estimated expenditure for implementing the pilot scheme to provide free food waste collection service in 2019-20 is about \$55 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB235

(Question Serial No. 6261)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

To implement the municipal solid waste charging, the Environmental Protection Department is setting up outreaching teams for the promotion and education work. Please provide the details of the staff establishment of the outreaching teams, the promotion and education work to be conducted and the estimated expenditure.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 309)

Reply:

To strengthen on-site support to recycling, the Environmental Protection Department (EPD) is establishing outreaching teams to collaborate closely with community partners to educate the public on the importance of waste reduction at source and assist them to practise proper waste separation at source and clean recycling, and to identify proper outlets for recyclables. At the same time, the outreaching teams will also promote the EPD's various waste reduction and recycling initiatives such as the producer responsibility scheme on waste electrical and electronic equipment, the producer responsibility scheme on glass beverage containers and the proposed municipal solid waste charging, so as to raise public awareness and participation, and enhance stakeholders' understanding on the implementation details. The outreaching teams will strive to establish and maintain a direct communication network with different stakeholders such as property management companies (PMCs), cleansing workers, residents' organisations, District Council (DC) members and community representatives, etc. Starting from December 2018, the outreaching teams have kick-started pilot outreaching services in 3 districts (i.e. Eastern, Kwun Tong and Sha Tin districts). Actual experiences gained will serve as reference for gradual expansion of outreaching services to all districts in Hong Kong in future.

The outreaching teams have been visiting public and private housing estates and residential buildings, including single-block buildings and "three nil" buildings in the pilot districts; establishing and maintaining a direct and effective liaison network with different stakeholders, such as the PMCs, cleansing workers, residents' organisations, DC members and community representatives, etc., to understand the situation of the housing

estates/buildings and provide recommendations on strengthening and enhancing waste reduction and recycling work; and assisting in improving and establishing an efficient system for collection of recyclables and identify proper outlets for recyclables.

The staffing of the EPD for implementing the outreaching services will be gradually increased from 32 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) at present (i.e. the financial year 2018-19) to 74 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) and 142 non-civil service contract staff in the financial year 2019-20. The estimated expenditure on salaries in 2019-20 is about \$110 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB236

(Question Serial No. 6262)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding recycling and refuse collection facilities in public places:

- What was the progress of work of the Steering Group on the Modification of Recycling and Refuse Collection Facilities in Public Places (the Steering Group) in the past year?
- The Steering Group proposed adjusting the number of litter containers (LCs) and recycling bins (RBs) in public places in 2017, with the aim of reducing the number of LCs by 40% and increasing the number of RBs by 45% by 2019. What is the implementation situation of this proposal?
- Please set out in tabular form the respective numbers of LCs and RBs in various districts in Hong Kong, the number of LCs and RBs per capita in various districts and the proportion of RBs and LCs in various districts in the past 3 years.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 310)

Reply:

Having regard to the objectives of facilitating waste reduction and resource recovery, the effective implementation of municipal solid waste (MSW) charging, and balancing the need of upholding environmental hygiene and cost-effectiveness in using public resources, the Steering Group on the Modification of Recycling and Refuse Collection Facilities in Public Places (the Steering Group) was set up by the Environment Bureau in 2016 under the chairmanship of the Secretary for the Environment. The Steering Group comprises members drawn from the relevant sectors¹, and is tasked with reviewing the distribution and design of recycling and refuse collection facilities in public places in a more systematic manner, and recommending modifications.

¹ Including design and planning, academia, business, non-profit-making groups, district personalities, as well as relevant government departments.

In respect of the review on the number and distribution of recycling bins (RBs) and litter containers (LCs) in public places, having regard to a set of general planning parameters recommended by a consultancy study, relevant government departments have put forward an adjustment plan. It is expected that the number of RBs will be increased by 45% to 4 000 while the number of LCs will be reduced by 40% to 24 300 in public places by the time when quantity-based MSW charging is implemented, enhancing the overall RB to LC ratio in public places from 1:14 to 1:6.

The consultant engaged by the Steering Group has come up with the conceptual design of the new RBs and LCs in public places and is tapping the views of frontline staff and relevant stakeholders before putting up the recommendations to the Steering Group for consideration.

The numbers of RBs and LCs placed in public places in 18 districts of Hong Kong by the Food and Environmental Hygiene Department (FEHD) and the Leisure and Cultural Services Department (LCSD) in the past 3 years are tabulated below.

District	2016				
	LC	Average number of people per LC	RB	Average number of people per RB	RB to LC ratio
Central and Western	2 438	100	191	1 274	1:13
Wan Chai	2 378	76	164	1 098	1:15
Eastern	2 111	263	107	5 187	1:20
Southern	1 315	209	126	2 183	1:10
Yau Tsim Mong	3 139	109	179	1 916	1:18
Sham Shui Po	1 689	240	94	4 318	1:18
Kowloon City	2 025	207	123	3 404	1:16
Wong Tai Sin	1 236	344	70	6 074	1:18
Kwun Tong	1 958	331	86	7 541	1:23
Tsuen Wan	1 416	225	120	2 658	1:12
Tuen Mun	2 257	217	151	3 240	1:15
Yuen Long	2 278	270	285	2 155	1:8
Kwai Tsing	2 086	250	86	6 053	1:24
North	1 218	259	208	1 516	1:6
Tai Po	1 901	160	190	1 599	1:10
Sha Tin	3 079	214	145	4 550	1:21
Sai Kung	1 825	253	268	1 724	1:7
Islands	1 296	121	153	1 025	1:8
Total	35 645	206	2 746	2 671	1:13

District	2017				
	LC	Average number of people per LC	RB	Average number of people per RB	RB to LC ratio
Central and Western	2 187	112	197	1 242	1:11
Wan Chai	2 165	84	191	950	1:11
Eastern	2 035	271	108	5 106	1:19
Southern	1 258	215	139	1 950	1: 9
Yau Tsim Mong	2 918	116	186	1 813	1:16
Sham Shui Po	1 567	260	101	4 029	1:16
Kowloon City	1 843	227	129	3 239	1:14
Wong Tai Sin	1 156	367	77	5 517	1:15
Kwun Tong	1 853	361	91	7 356	1:20
Tsuen Wan	1 345	236	124	2 557	1:11
Tuen Mun	2 132	229	163	2 996	1:13
Yuen Long	2 087	302	291	2 166	1:7
Kwai Tsing	1 662	310	85	6 066	1:20
North	1 051	301	211	1 501	1:5
Tai Po	1 417	216	198	1 548	1:7
Sha Tin	2 705	252	146	4 672	1:19
Sai Kung	1 797	260	287	1 625	1:6
Islands	1 033	158	152	1 072	1:7
Total	32 211	229	2 876	2 570	1:11

District	2018				
	LC	Average number of people per LC	RB	Average number of people per RB	RB to LC ratio
Central and Western	1 848	133	220	1 116	1:8
Wan Chai	1 530	119	232	784	1:7
Eastern	1 555	355	248	2 223	1:6
Southern	1 061	257	155	1 762	1:7
Yau Tsim Mong	2 236	150	191	1 757	1:12
Sham Shui Po	1 165	346	115	3 509	1:10
Kowloon City	1 527	275	133	3 160	1:11
Wong Tai Sin	1 035	409	80	5 289	1:13
Kwun Tong	1 639	417	133	5 134	1:12
Tsuen Wan	1 174	268	139	2 264	1:8
Tuen Mun	1 891	266	173	2 906	1:11
Yuen Long	1 792	358	296	2 166	1:6
Kwai Tsing	1 409	365	91	5 657	1:15
North	931	342	214	1 488	1:4
Tai Po	1 171	265	200	1 553	1:6
Sha Tin	2 381	288	161	4 258	1:15
Sai Kung	1 691	279	288	1 639	1:6
Islands	959	181	163	1 063	1:6
Total	26 995	276	3 232	2 305	1:8

Apart from the above RBs placed in public places by the FEHD and the LCSD, the Government has also placed about 16 000 sets of RBs in other public places, schools, government quarters, government offices, hospitals, clinics and housing estates as well as residential buildings which had participated in the Source Separation of Waste Programme.

- End -

CONTROLLING OFFICER'S REPLY

ENB237

(Question Serial No. 6263)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the Environmental Levy Scheme on Plastic Shopping Bags (the Levy Scheme):

- Please provide the annual surveys conducted by the Environmental Protection Department on the disposal of plastic shopping bags (PSBs) from 2009 onwards and the relevant statistics;
- According to the information previously provided by the Department on the above surveys, since the extension of the Levy Scheme to cover all retail outlets in April 2015, the amount of PSBs disposed of originated from other retail categories other than the retail categories in the first phase did not significantly drop between 2014 and 2016. Such amount merely decreased from about 910 million in 2014 to about 700 million in 2016, representing a reduction of 24%. The above situation was clearly different from that when the first phase of the Levy Scheme was implemented between 2009 and 2010, which resulted in a significant decrease in the amount of PSBs disposed of originated from the relevant categories from about 660 million in 2009 to about 150 million in 2010, representing a reduction of 77%. Please provide the promotion and enforcement measures targeting PSBs originated from other retail categories that the Administration has put in place since the extension of the Levy Scheme in April 2015, and details of the relevant manpower and expenditure.
- There has been a reversal of decline in the number of PSBs disposed of under the category of "source unidentified" since 2009. Since the implementation of the Scheme, the overall amount of PSBs disposed of under this category only slightly decreased from about 4.7 billion in 2009 to about 4.3 billion in 2016. What is the Bureau's plan to improve the above situation? In particular, how will the Bureau reduce the number of PSBs disposed of under the category of "source unidentified", and to reduce the use of plastic bags by the public?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 311)

Reply:

According to the landfill survey conducted by the Environmental Protection Department (EPD) in 2005, some 8 billion plastic shopping bags (PSBs) were disposed of at landfills that year.

The first phase of the PSB charging scheme was implemented on 7 July 2009, covering some 3 000 registered retail outlets that were supermarkets, convenience stores and medicare and cosmetics stores. According to the estimation from the disposal survey conducted before the implementation of the scheme in mid-2009, and 1 year after the implementation of the first phase in mid-2010, the number of PSBs disposed of at landfills originated from the 3 retail categories has dropped significantly by over 75% from some 660 million to 150 million.

The charging scheme was fully extended to cover the entire retail sector on 1 April 2015. The total disposal in that year was 3.93 billion, which was a marked reduction of about a quarter from 5.24 billion in the previous year. The total disposal in 2017 was 4.42 billion, representing a year-on-year increase of 3%, but there was still a 15% reduction as compared to 2014 when the scheme was not yet fully implemented. The relevant figures of the PSB disposal survey since 2009 are set out in the Annex.

Since the Product Eco-responsibility (Amendment) Ordinance 2014 (the Ordinance) which regulates the PSB charging was fully implemented on 1 April 2015, the EPD has been conducting inspections, following up on complaint cases at various retail shops across the territory and holding publicity and education activities for retailers within and outside office hours as well as on holidays from time to time. As the relevant enforcement work is part of the routine duties of the EPD, we do not have separate figures for the manpower and expenditure involved.

Besides, we launched a series of extensive promotional activities when the PSB charging was fully implemented in 2015 to tie in with the implementation of the new ordinance. Subsequently, we continued our publicity and education efforts through various channels including TV and radio Announcements in the Public Interest (APIs), posters, leaflets and display panels. Last year, we launched a new set of APIs and posters to continue to encourage the public to go green by bringing their own bags.

As the disposal of PSBs has been on the rise for 2 consecutive years and the charging scheme has been in operation for some time, the Government will review the effectiveness of the scheme in reducing the use and disposal of PSBs. Among other things, the existing minimum charge of 50 cents has not been adjusted since the voluntary scheme had been in place before the implementation of the first phase of the charging scheme in 2009, we will explore whether there is a need to make any adjustments. In addition, there are also views on whether the existing exemptions granted mainly for food hygiene reasons (especially the use of PSBs to carry frozen or chilled foodstuff) have to be tightened, so as to further encourage reduction in the use of PSBs. We are following these directions to review the operation and effectiveness of the charging scheme so as to consider whether there is room for further improvement. We plan to consult the public on the findings of the review and the way forward later this year.

Findings of the Surveys on Disposal of PSBs: Estimated annual disposal by number of bags

Retail categories ⁽¹⁾	2009		2010		2011		2012		2013		2014		2015 ⁽³⁾		2016		2017	
	Million/Year	%	Million/Year	%	Million/Year	%	Million/Year	%	Million/Year	%	Million/Year	%	Million/Year	%	Million/Year	%	Million/Year	%
Supermarkets	488.22	10.44%	84.22	1.90%	75.71	1.66%	75.09	1.43%	41.24	0.89%	59.40	1.13%	54.85	1.40%	32.26	0.75%	36.78	0.83%
Convenience stores	89.98	1.92%	15.33	0.34%	17.55	0.39%	15.60	0.30%	15.13	0.33%	15.54	0.30%	18.71	0.48%	35.60	0.83%	40.44	0.92%
Medicare and cosmetic stores	79.14	1.69%	53.57	1.21%	53.70	1.18%	65.12	1.24%	59.91	1.30%	80.22	1.53%	27.76	0.71%	37.20	0.87%	35.23	0.80%
<i>Sub-total Retail categories in the first phase</i>	<i>657.34</i>	<i>14.05%</i>	<i>153.12</i>	<i>3.45%</i>	<i>146.96</i>	<i>3.23%</i>	<i>155.81</i>	<i>2.97%</i>	<i>116.28</i>	<i>2.52%</i>	<i>155.15</i>	<i>2.96%</i>	<i>101.31</i>	<i>2.58%</i>	<i>105.06</i>	<i>2.45%</i>	<i>112.45</i>	<i>2.55%</i>
Other retail categories	823.48	17.60%	890.20	20.03%	906.95	19.96%	844.26	16.09%	849.45	18.37%	914.68	17.45%	704.67	17.93%	697.71	16.24%	793.79	17.96%
<i>Sub-total All retail categories</i>	<i>1 480.82</i>	<i>31.65%</i>	<i>1 043.32</i>	<i>23.48%</i>	<i>1 053.91</i>	<i>23.19%</i>	<i>1 000.07</i>	<i>19.06%</i>	<i>965.73</i>	<i>20.89%</i>	<i>1 069.84</i>	<i>20.41%</i>	<i>805.99</i>	<i>20.52%</i>	<i>802.77</i>	<i>18.69%</i>	<i>906.24</i>	<i>20.51%</i>
Source unidentified ⁽²⁾	3 197.71	68.35%	3 400.42	76.52%	3 490.28	76.81%	4 247.35	80.94%	3 656.58	79.11%	4 171.99	79.59%	3 124.18	79.49%	3 493.71	81.32%	3 512.26	79.49%
Total	4 678.53	100 %	4 443.74	100 %	4 544.19	100%	5 247.42	100%	4 622.31	100 %	5 241.82	100 %	3 930.17	100%	4 296.48	100%	4 418.50	100%

(Figures may not add up to total due to rounding off)

Notes:

1. The first phase of the PSB charging scheme was implemented from 7 July 2009 to 31 March 2015, applicable to registered retailers, covering mainly large chain supermarkets, convenience stores and medicare and cosmetic stores. However, PSBs bearing the characteristics of supermarkets, convenience stores or medicare and cosmetic stores found in the disposal surveys might be distributed by supermarkets, convenience stores or medicare and cosmetic stores which were not registered retailers.
2. PSBs bearing no logos or signs that show their sources or unable to be categorised will be categorised as “source unidentified”.
3. Since 1 April 2015, the PSB charging scheme has been extended to cover the entire retail sector.

- End -

CONTROLLING OFFICER'S REPLY

ENB238

(Question Serial No. 6264)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (6) Nature Conservation

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Environmental Protection Department (EPD) established the Countryside Conservation Office (CCO) in 2018 to plan and co-ordinate minor improvement works in Lai Chi Wo and Sha Lo Tung as priority areas. Please provide the details of the various minor improvement works projects in the countryside implemented by the CCO since its establishment, including the nature of the works, locations, costs, as well as commencement and completion dates.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 312)

Reply:

The Countryside Conservation Office (CCO) was established in late July 2018. Since the establishment of the CCO, its staff have carried out a number of site inspections to Lai Chi Wo and Sha Lo Tung, and have been liaising and co-ordinating with relevant government departments, non-governmental organisations and stakeholders (including village representatives, the Rural Committees concerned and green groups, etc.) to discuss and examine suitable minor improvement works. Its preliminary proposals include exploring the feasibility of installing a broadband network and improving public toilet facilities, details of which are still under formulation at the present stage. The CCO will consult the Advisory Committee on Countryside Conservation, which will soon be established, about the suitable improvement works proposals, with a view to taking forward the proposals as soon as possible to improve the local infrastructure.

- End -

CONTROLLING OFFICER'S REPLY**ENB239****(Question Serial No. 6265)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (6) Nature ConservationControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide in tabular form the details of the remaining country park enclaves at present, including their locations, areas, and the summarised conclusion of the relevant departments' assessment on whether such enclaves are suitable for incorporation into country parks. Does the Department plan to recommend more enclaves for incorporation into country parks in the coming year? If yes, what are the details? If no, what are the reasons?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 313)Reply:

Currently, there are 19 enclaves that have not been incorporated into country parks or covered by statutory plans. The details of which are tabulated below:

Name of enclave	Approximate area (in hectares)
Ping Shan Chai	15
Tei Tong Tsai	15
Tung Sam Kei	4
Nam Sham Tung	5
Lai Chi Chong	16
Tai Hom	5
Wong Chuk Long	4
Site near Wong Mau Kok	3
Hung Shek Mun Tsuen	10
Lai Tau Shek	10
Tsin Yue Wan	4
Yi Tung Shan	7
Man Cheung Po	2
Site near Peaked Hill	5
Site near Chuen Lung	10
Site near Tso Kung Tam	9

Name of enclave	Approximate area (in hectares)
Tsing Fai Tong	26
Sheung Tong	10
Sheung Fa Shan	26

The Agriculture, Fisheries and Conservation Department will continue to assess the suitability for incorporating the above enclaves into country parks according to the established principles and criteria as well as relevant considerations, and will put forward proposals to incorporate suitable enclaves into country parks in accordance with the statutory procedures stipulated in the Country Parks Ordinance (Cap. 208).

- End -

CONTROLLING OFFICER'S REPLY

ENB240

(Question Serial No. 6266)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

On promoting electric private cars (e-PCs):

- Please set out in tabular form the number of newly registered electric vehicles (EVs) in the past 5 financial years by the taxable value of the EVs:

	Taxable value		
	HK\$97,500 or below	Above HK\$97,500 to \$250,000	Above HK\$250,000
Number in the financial year of 2014-15			

- What were the number of applications approved under the “One-for-One Replacement” Tax Concession Scheme for e-PCs and the total amount in tax saved in the past financial year?
- Please set out in tabular form the number of newly registered EVs approved under the “One-for-One Replacement” Tax Concession Scheme for e-PCs in the past financial year by the taxable value of the EVs:

	Taxable value		
	HK\$97,500 or below	Above HK\$97,500 to \$250,000	Above HK\$250,000
Number			

- What were the number of applications approved for first registration tax (FRT) concessions for general e-PCs and the total amount in tax saved in the past financial year?

- Please set out in tabular form the number of newly registered EVs approved for FRT concessions for general e-PCs in the past financial year by the taxable value of the EVs:

	Taxable value		
	HK\$97,500 below	or	Above HK\$97,500 to Above HK\$250,000
Number			

- Please set out the respective number of newly registered e-PCs in the past financial year by model.
- Has the Government put in place any publicity measures to promote the use of EVs and the relevant tax concessions as well as the lower licence fees in the past 3 years? If yes, what were the details and the relevant expenditure? If no, what were the reasons?
- What was the Government's work progress in developing government public charging networks and non-governmental public charging networks in the past 3 years?
- Does the Department have a good grasp of the specific situation in respect of the installation of charging facilities in private premises, including the statistics on the provision of assistance to vehicle owners to connect EV charging facilities for parking spaces by the two power companies and the provision of the relevant connection service to private properties by other private companies? Can the Department estimate the number of parking spaces already installed with charging facilities in private premises at present and their percentage in the total number of parking spaces? Has the Government assessed the increase in the relevant figures in the past 3 years?
- Has the Government studied and assessed the feasibility of raising the FRT concession cap for general e-PCs to \$250,000 and removing the concession cap for the "One-for-One Replacement" Tax Concession Scheme (i.e. waiving the FRT in full) and their effect in promoting e-PCs as well as the impact on the Government's finances? If yes, please provide the relevant information. If no, will the Government consider studying the relevant proposals?
- Has the Government assessed the expenditure incurred for raising the charging speed of all the remaining standard EV charging facilities across the territory to medium level? If yes, please provide the relevant estimated expenditure.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 314)

Reply:

(1) The number of first registered electric private cars (e-PCs) in the past 5 financial years was 10 888. The number of first registered electric vehicles (EVs) by the specified taxable value and the first registration tax (FRT) payable (not including FRT concessions) was set out as follows:

Financial year	No. of first registered e-PCs						
	Total	By taxable value			By the FRT payable (not including FRT concessions)		
		\$97,500 or below	Above \$97,500 to \$250,000	Above \$250,000	\$97,500 or below	Above \$97,500 to \$250,000	Above \$250,000
2014-15	1 273	0	0	1 273	0	43	1 230
2015-16	3 118	0	1	3 117	0	107	3 011

2016-17	5 839	0	0	5 839	0	162	5 677
2017-18	136	0	1	135	0	77	59
2018-19 (As at the end of February 2019)	522	0	16	506	0	384	138
Total	10 888	0	18	10 870	0	773	10 115

Note: Government vehicles are not included as they are not required to pay FRT.

(2) to (5)

In the financial year of 2018-19 (as at the end of February 2019), the number of first registered e-PCs was 522, among which 378 e-PCs were first registered under the “One-for-One Replacement” Scheme (Scheme). The number of e-PCs with FRT concessions granted (by the specified taxable value and the FRT payable (not including FRT concessions)) and the total amount of FRT concessions granted are as follows:

FRT concessions for e-PCs	2018-19 financial year (as at the end of February 2019)							
	No. of concessions granted (i.e. no. of vehicles)	Total amount of FRT concessions granted (\$m)	No. of first registered e-PCs					
			By taxable value			By the FRT payable (not including FRT concessions)		
			\$97,500 or below	Above \$97,500 to \$250,000	Above \$250,000	\$97,500 or below	Above \$97,500 to \$250,000	Above \$250,000
Up to \$97,500	144	14.0	0	15	129	0	91	53
Up to \$250,000 (the Scheme)	378 [Note]	74.8	0	1	377	0	293	85

Note:

- (1) Including 1 application that had been approved but was withdrawn by the applicant.
- (2) Since the implementation of the Scheme on 28 February 2018 until the end of February 2019, the Transport Department has approved 389 applications, with 11 approved in the financial year 2017-18 and 378 approved in the financial year 2018-19 respectively.
- (3) As the replacement e-PCs still have to undergo established procedures to complete first registration after the “One-for-One Replacement” applications are approved, and it takes time to complete the relevant procedures, the number of “One-for-One Replacement” applications approved may differ from the number of first registered e-PCs in the same period.
- (6) The number of e-PCs first registered in the financial year 2018-19 (as at the end of February 2019), their brands and models are as follows:

First registered e-PCs in the financial year 2018-19 (as at the end of February 2019)		
Brand	Model	Quantity
BMW <i>i</i>	I3 94AH (I01)	48
	I3S 94AH (I01)	17
BYD	E6	2
HYUNDAI	IONIQ ELECTRIC	139

First registered e-PCs in the financial year 2018-19 (as at the end of February 2019)		
Brand	Model	Quantity
	IONIQ ELECTRIC (URBAN)	35
NISSAN	E-NV200 EVALIA 5-SEATER	11
	E-NV200 EVALIA 7-SEATER	48
RENAULT	ZOE ZE40	65
	ZOE ZE40 (BOSE)	4
SMART	SMART FORFOUR ELECTRIC DRIVE (W453)	11
TESLA	MODEL S 100 KWH DUAL MOTOR	3
	MODEL S 75 KWH DUAL MOTOR	9
	MODEL X 100 KWH DUAL MOTOR	3
	MODEL X 75 KWH DUAL MOTOR	12
	MODEL X 90 KWH DUAL MOTOR	76
VOLKSWAGEN	NEW E-GOLF	35
	NEW E-GOLF LIFE	4
	Total	522

(7)

The Environmental Protection Department (EPD) has been sharing with the transport sectors and those parties who are interested in green innovative transport technologies, the trial results of these technologies (including EVs) in Hong Kong through different activities, and encouraging the trades to make use of the subsidy of the Pilot Green Transport Fund (the Fund) to test out green innovative transport technologies. We organised 4 experience sharing sessions in the past 3 years. As the relevant work was absorbed by the existing resources of the EPD, there is no breakdown of the expenditure involved.

The EPD also set up a game stall in the first Formula E motor race on 8 to 9 October 2016 to promote EVs, involving an expenditure of about \$500,000. Moreover, the EPD organised the International Competition on Second Life for Retired Batteries from Electric Vehicles in 2016 and 2017 and held its championship at the Science Park in June 2017, while the EV seminar and EV exhibition were held at the same venue on the same day of the championship, involving a total expenditure of about \$2.46 million. The manpower was absorbed by the existing resources of the EPD.

The EPD has also appealed to owners' corporations and property managers for their support in installing EV chargers at their premises through seminars and workshops. The Government will continue to strengthen its communication, publicity and education, and provide technical assistance for building owners, property management companies and owners' corporations to facilitate their installation of EV charging facilities. As the relevant work is absorbed by the existing resources of the EPD, there is no breakdown of the expenditure involved.

To help vehicle owners and the transport sectors to understand the details of the FRT concessions for EVs, the EPD has provided such information to the public through its webpage and press releases. As the Transport Department (TD) also helped the EPD with processing of FRT concessions for EVs, including applications under the “One-for-One Replacement” Scheme (Scheme), the TD has also provided information on the FRT concessions for EVs through its webpage. Since March 2018, the TD has displayed publicity posters on the Scheme at various Licensing Offices, distributed the posters to relevant registered distributors, and uploaded the information on the application procedures, eligibility criteria, etc. of the Scheme to its webpage. The relevant work is absorbed by the existing resources of the EPD and the TD, and the departments have no breakdown of the expenditure involved.

(8) and (11)

To improve the charging efficiency, the Government has progressively upgraded 370 standard chargers at the car parks managed by the TD and the Government Property Agency (GPA) which are open for public use to medium chargers in the past few years (as compared with standard chargers, medium chargers can reduce the charging time by up to 60%). As at the end of 2018, the EPD has installed 519 chargers, among which 364 are medium chargers, at 425 parking spaces (representing 7% of the relevant parking spaces) at the government car parks managed by the TD and the GPA which are open for public use. The details of and expenditure on the enhancement of public charging facilities at the above car parks in the past 3 years are as follows:

Year	No. of public EV charging facilities enhanced	Expenditure (\$m)
2016-17	174 standard chargers upgraded to medium chargers and 5 medium charging posts installed at outdoor car parks	2.94
2017-18	96 standard chargers upgraded to medium chargers	1.32
2018-19	**	**
Total		4.26

** The EPD completed the work for upgrading the standard chargers provided at the car parks of the TD and the GPA which are open for public use to medium chargers in February 2018. Apart from 61 standard chargers located at the TD car parks which will be demolished and 94 chargers which have both standard and medium charging functions, standard chargers at the car parks of the TD and the GPA that are open for public use have all been upgraded to medium chargers.

The Government not only takes the lead in providing and enhancing its public charging facilities, but also encourages the private sector to set up and enhance non-governmental public charging networks. Regarding non-governmental public charging networks, we have all along been appealing to the two power companies and both public and private establishments to actively support the installation of EV charging facilities. Besides, regarding the measure for granting concession on gross floor area to encourage developers to provide EV charging-enabling infrastructure, including provision of sufficient power supply, cabling and conduits, for all the car parks of new developments, the scope of concession was extended from originally covering private car parks only to covering underground public car parks in March 2017. The two power companies are also upgrading their existing public standard chargers to medium or quick chargers. EV

suppliers have also been proactively installing EV charging facilities for their EV models at public venues. Currently, there are about 1 384 non-government public chargers, including 360 medium chargers and 494 quick chargers.

(9) According to the information provided by the two power companies, the numbers of new electricity accounts opened for connecting with EV charging facilities in existing private residential and commercial buildings from 2016 to 2018 are as follows:

Year	CLP Power Hong Kong Limited	The Hongkong Electric Company, Limited	Total
2016	202	344	546
2017	321	309	630
2018	463	243	706
Total	986	896	1 882

In recent years, several private companies have been providing EV owners, housing estates or business establishments with one-stop EV charging services, including installation of charging facilities at EV owners' parking spaces and provision of charging services at other specified locations. As far as we know, these companies have so far installed charging facilities for more than 34 housing estates.

The Government does not have statistics on private chargers provided at private car parks which are not open for public use, and therefore we are unable to estimate the number of parking spaces installed with charging facilities in existing private buildings, the share of parking spaces installed with charging facilities in the total number of parking spaces, and to assess the increase in the relevant figures in the past 3 years.

(10) On promoting e-PCs, the Government's standing policy is to encourage the public to use public transport as far as possible. Should members of the public need to acquire private cars, they are encouraged to choose EVs. The Government promotes the use of e-PCs in Hong Kong mainly through offering financial incentives, such as tax concession and lower annual vehicle licence fee, and facilitating the development and enhancement of charging networks for e-PCs.

To strike a balance between the objectives of promoting the use of e-PCs and not increasing the overall number of PCs at the same time, the Government introduced the "One-for-One Replacement" Scheme on 28 February 2018 to encourage existing PC owners to choose EVs when they need to replace their cars. Purchasers of e-PCs who scrap and de-register their eligible old PCs can enjoy a higher first registration tax concession.

Having examined the views from members of the public after the implementation of the Scheme, the Government has decided to relax the eligibility criteria of ownership period and licensed period of an "old private car" under the Scheme with effect from 28 January 2019 until the end of the Scheme (i.e. 31 March 2021). After relaxing the relevant criteria, the number of eligible vehicles has increased by 30% to more than 250 000. The Government considered that the existing arrangement has balanced various factors. The Government will review the relevant arrangement before the end of the current FRT arrangement for EVs (i.e. 31 March 2021) as scheduled. There is no plan to change the established arrangement at this stage.

- End -

CONTROLLING OFFICER'S REPLY**ENB241****(Question Serial No. 6267)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the development of electric vehicles (EVs) in Hong Kong, would the Government advise on the following:

- The changes in the numbers of electric private cars, hybrid private cars and diesel private cars respectively in the past 5 years;
- The numbers of newly registered electric private cars, hybrid private cars and diesel private cars each month in the past 5 years;
- The changes in the numbers of public and private EV chargers respectively in the past 5 years;
- What was the number of registered private cars in Hong Kong as at the end of February 2018? Of which, how many were electric private cars?
- Currently, the information and policy initiatives about EVs are published on the websites of the Environmental Protection Department, the Transport Department and the Inland Revenue Department, etc. Will the Administration establish a new online platform for promoting the use of EVs, so as to centrally disseminate the relevant information? If yes, what are the details? If no, what are the reasons?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 315)Reply:

(1) The net growth in the number of registered vehicles for electric private car (PC), hybrid PC and diesel PC in the past 5 years is as follows:

As at	No. of registered vehicles (net growth)		
	Electric PC	Hybrid PC	Diesel PC
End of 2014	1 160(+843)	11 862(+3 288)	4 110(+1 504)
End of 2015	3 806(+2 646)	13 930(+2 068)	5 655(+1 545)
End of 2016	6 829(+3 023)	15 699(+1 769)	7 532(+1 877)
End of 2017	10 666(+3 837)	17 737(+2 038)	11 760(+4 228)
End of 2018	11 080(+414)	19 688(+1 951)	11 999(+239)

Note 1: The net growth in number is the number of registered vehicles as at 31 December in that year less the number of registered vehicles as at 31 December in the previous year.

Note 2: Government electric vehicles (EVs) are not included as government vehicles are not required for registration.

(2) The monthly numbers of first registered electric PCs, hybrid PCs and diesel PCs in the past 5 years are as follows:

Year	Month	No. of first registered vehicles in the month		
		Electric PC	Hybrid PC	Diesel PC
2014	January	5	170	81
	February	1	397	37
	March	2	271	65
	April	3	227	104
	May	8	298	81
	June	6	279	119
	July	15	248	137
	August	161	273	212
	September	98	343	214
	October	167	318	171
	November	50	259	73
	December	329	230	252
2015	January	169	223	208
	February	83	313	353
	March	179	405	78
	April	130	95	146
	May	130	147	137
	June	143	240	162
	July	73	139	70
	August	179	148	54
	September	234	146	79
	October	351	162	68
	November	435	166	92
	December	501	162	146
2016	January	268	108	56
	February	163	151	55
	March	511	138	85
	April	147	166	85
	May	81	176	71
	June	203	182	146
	July	297	179	155
	August	289	142	211
	September	528	132	239
	October	162	128	306
	November	166	164	232
	December	205	174	255

Year	Month	No. of first registered vehicles in the month		
		Electric PC	Hybrid PC	Diesel PC
2017	January	196	152	240
	February	601	152	162
	March	2 964	179	347
	April	0	149	365
	May	5	193	531
	June	8	186	378
	July	3	153	369
	August	14	171	748
	September	13	189	882
	October	6	173	80
	November	32	194	88
	December	18	194	56
2018	January	11	213	75
	February	6	176	50
	March	20	199	51
	April	37	183	56
	May	18	192	21
	June	42	234	4
	July	22	220	1
	August	45	229	1
	September	73	168	1
	October	43	212	1
	November	78	146	0
	December	76	159	4

Note: Government EVs are not included as government vehicles are not required for registration.

(3) The change in the number of public EV chargers (including government and non-government) in the past 5 years is as follows:

Year	No. of public EV chargers		Difference with the number in the previous year	
	Government	Non-government	Government	Non-government
2014	560	565	+60	+29
2015	637	584	+77	+19
2016	665	853	+28	+269
2017	680	1 182	+15	+329
2018	782	1 384	+102	+202

The Government does not have statistics on private chargers provided at private car parks which are not open for public use.

(4) As at the end of February 2019, the total number of registered PCs was 619 654, among which 11 166 were registered electric PCs. Government EVs are not included as government vehicles are not required for registration.

(5) Although the measures for promoting the use of EVs are administered by different departments, a webpage on the Promotion of Electric Vehicles in Hong Kong has been

developed on the website of the Environmental Protection Department which has incorporated relevant information on EVs for public information. Members of the public may access the webpage (https://www.epd.gov.hk/epd/english/environmentinhk/air/prob_solutions/promotion_ev.html) for more details.

- End -

CONTROLLING OFFICER'S REPLY

ENB242

(Question Serial No. 6268)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding promoting the installation of electric vehicle (EV) chargers at residential car parks, would the Government advise on the following:

- Will the Government deploy resources to establish a fund for subsidising the installation of EV chargers at residential car parks? If yes, what are the details? If no, what are the reasons?
- Will the Government collaborate with District Councils in its promotional and educational work to help managers of residential car parks and owners' organisations to understand the need to install EV chargers? If yes, what are the details? If no, what measures the Administration has in place to promote installation of EV chargers at residential car parks?
- According to the Government's understanding, what infrastructure is required for installing EV charging facilities at residential car parks at present? Does it involve obtaining approvals from government departments?
- Does the Administration have data on the two power companies' assistance for vehicle owners to connect power supply for their parking spaces? If yes, please provide the figures on the two power companies' successful connection of power supply for parking spaces for vehicle owners in the past 3 years.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 317)

Reply:

(1) and (2)

Regarding the charging arrangements for electric private cars (e-PCs), it is the Government's policy direction that e-PC owners should perform daily charging of their e-PCs by using charging facilities at their home, workplace or other suitable places. Public charging facilities are mainly supplementary in nature, setting up for electric vehicle (EV) owners to meet occasional needs to top up their batteries on the way. They do not serve as daily charging facilities or their alternatives. Potential buyers of e-PCs should fully consider the daily charging arrangements required and should not rely on public charging facilities for daily charging of their e-PCs.

Given the above policy direction, the Government's priority is to facilitate and encourage the installation of charging facilities in private premises when planning for the development of charging facilities for e-PCs. For private premises, granting of concession on gross floor area for new private buildings have been tightened since April 2011 to encourage developers to provide EV charging-enabling infrastructure, including provision of sufficient power supply, cabling and conduits for all parking spaces at the private car parks of the new buildings concerned. The policy helps to avoid owners of parking spaces being unable to install the required EV chargers owing to constraints in power supply capacity, cabling and conduits, etc. when EVs are widely used in future. According to the information of the Buildings Department, from April 2011 to September 2018, over 80% of parking spaces in the newly approved developments, involving about 440 car parks and around 48 000 parking spaces, will be provided with EV charging-enabling infrastructure.

For existing private premises, as there are constraints in installing charging facilities at their car parks, the Environmental Protection Department (EPD) established in 2011 a dedicated team and a hotline to provide information and technical support. The two power companies have been providing technical advice to EV owners and rendering service to connect power supply for car parking spaces at their homes. In recent years, several private companies have been providing EV owners, housing estates or business establishments with one-stop EV charging services, including installation of charging facilities at EV owners' parking spaces and provision of charging services at other specified locations. As far as we know, these companies have so far installed charging facilities for more than 34 housing estates.

Besides, the EPD has appealed to owners' corporations and property managers for their support in installing EV chargers at their premises through seminars and workshops. The Government will continue to strengthen its communication, publicity and education and provide technical assistance for building owners, property management companies and owners' corporations to facilitate their installation of EV charging facilities. If individual District Councils intend to conduct relevant promotion and education programmes, the EPD is delighted to cooperate and work in collaboration with them.

The Government will continue to explore feasible measures to promote the provision of EV charging-enabling infrastructure or chargers in existing private buildings.

(3) Currently, the infrastructure required for the installation of EV charging facilities in residential car parks is mainly adequate power supply and suitable cabling, electric wiring for the parking spaces where chargers are to be installed. It does not involve obtaining approvals from government departments.

(4) According to the information provided by the two power companies, the numbers of new electricity accounts opened for connecting with EV charging facilities in existing private residential and commercial buildings from 2016 to 2018 are as follows:

Year	CLP Power Hong Kong Limited	The Hongkong Electric Company, Limited	Total
2016	202	344	546
2017	321	309	630
2018	463	243	706
Total	986	896	1 882

- End -

CONTROLLING OFFICER'S REPLY

ENB243

(Question Serial No. 6269)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding public electric vehicle (EV) charging facilities, would the Government advise on the following:

- The Government conducted a pilot scheme at 4 outdoor car parks to test the reliability of outdoor charging facilities last year. What were the findings of the scheme? Will the Administration expedite the installation of more outdoor charging facilities in its outdoor car parks? If yes, what are the details? If no, what are the reasons?
- According to the Environmental Protection Department's (EPD) reply in last year's Budget, the Government only required \$1.28 million to install 100 medium chargers in 2014-15. However, it is mentioned in this year's Budget that 1 000 medium chargers will be installed at the cost of \$120 million, representing a tenfold increase in the cost. What are the reasons? What are the works projects and a breakdown of the expenditure to be involved?
- At present, the Government only provides 4 quick chargers across the territory, which accounts for less than 1% of all the quick chargers in Hong Kong. Will the Administration provide more quick chargers? If yes, what are the details? If no, what are the reasons?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 318)

Reply:

(1) The Environmental Protection Department conducted a pilot scheme at 4 government outdoor car parks (located at the Electrical and Mechanical Services Department Headquarters, Hong Kong Wetland Park, Wai Tsuen Sports Centre and Shek Kip Mei Park respectively) managed by contractors, where a total of 11 outdoor medium chargers have been installed to assess their reliability. The review of the pilot scheme was completed in late 2018, and the results showed that these outdoor chargers had worked well. We will consider whether more outdoor chargers can be installed in other government premises. We will also identify suitable on-street parking spaces to install electric vehicle (EV) chargers on a trial basis.

(2) As regards extending the public EV charging networks at government car parks, the Government will install over 1 000 additional public chargers at the car parks managed by the Transport Department, the Government Property Agency and the Leisure and Cultural Services Department which are fully or partly open to the public in the coming 3 years.

The Government's works for replacing 100 standard chargers with chargers having both standard and medium charging functions in 2014-15 mainly involved replacement of the chargers, without any need to enhance the power supply system or replace the cables, electrical wires, etc. Regarding the installation of over 1 000 new public chargers in the coming 3 years, the expenditure is about \$120 million, which will cover the provision of 7 kW medium chargers, as well as the costs of laying cables, wires and conduits for provision of power supply, and installing smart meters, etc. Hence, the costs will be higher than those for replacement of chargers.

(3) To enable EV owners to top up their batteries quickly to meet occasional need during their trips, the Government is looking for suitable locations to set up pilot public quick charging stations. A quick charger (charger with a power output of at least 50 kW) can add 50 to 100 km of driving range to electric private cars in 15 to 30 minutes. When searching for trial sites, the Government will consider the impact on traffic flow and explore the possibility of arranging the quick charging stations to be co-located with other Government facilities so as to reduce costs and optimise land use. As the work for exploring suitable locations is in progress, there is no confirmed location for the time being.

- End -

CONTROLLING OFFICER'S REPLY**ENB244****(Question Serial No. 6270)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the first registration, tax and vehicle licence of electric private cars, would the Government advise on the following:

- Please set out the total amount of the First Registration Tax (FRT) concessions for electric private cars each year in the past 5 years;
- Please set out the total amount of vehicle licence fee paid by electric private cars each year in the past 5 years;
- Please set out the respective number of newly registered electric private cars each year in the past 5 years by name of manufacturer and model.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 319)Reply:

1. The amounts of first registration tax (FRT) waived for electric private cars (e-PCs) in the past 5 years are as follows:

Year	The amount of FRT waived for e-PCs (\$m)
2014	549.1
2015	1,743.4
2016	1,975.4
2017	3,149.4
2018	79.9

Note: Government vehicles are not included as they are not required to pay FRT.

2. The amounts of annual vehicle licence fees paid by licensed e-PCs in the past 5 years are as follows:

Year	The amount of annual vehicle licence fees paid by licensed e-PCs (\$'000)
2014	919
2015	3,191
2016	5,842
2017	9,491
2018	9,650

Note: The estimation is made based on the number of licensed e-PCs at the end of each year and their annual vehicle licence fees required to be paid.

3. The numbers of first registered vehicles of various e-PC models in each of the past 5 years are as follows:

Name of manufacturer[^]	Model[^]	No. of first registered e-PCs in the year				
		2014	2015	2016	2017	2018
BMW ⁱ	I3 (I01)	181	226	53	10	0
	I3 94AH (I01)	0	0	21	42	48
	I3S 94AH (I01)	0	0	0	0	16
BYD	E6	7	9	4	3	3
HYUNDAI	IONIQ ELECTRIC	0	0	0	0	89
	IONIQ ELECTRIC (URBAN)	0	0	0	0	32
MITSUBISHI MOTORS COPORATION	I-MIEV	4	1	0	1	0
NISSAN	E-NV200 5-Seats	0	1	2	5	7
	E-NV200 7-Seats	4	9	8	3	40
	LEAF	24	30	30	9	1
	LEAF PLUS	3	3	6	0	0
RENAULT	FLUENCE Z.E.	0	0	2	7	0
	ZOE	0	1	2	0	0
	ZOE (R240)	0	11	20	0	0
	ZOE ZE40	0	0	0	31	68
	ZOE ZE40 (BOSE)	0	0	0	0	4
SMART	SAMRT FORTWO COUPE ELECTRIC DRIVE	0	0	2	0	0
TAZZARI	EM1	1	1	0	0	0
TESLA	MODEL S 60 KWH	78	87	98	150	0
	MODEL S 60 KWH DUAL MOTOR	0	0	95	102	0
	MODEL S 70 KWH	0	32	429	2	0
	MODEL S 70 KWH DUAL MOTOR	0	469	691	3	0
	MODEL S 75 KWH	0	0	82	90	0
	MODEL S 75 KWH DUAL MOTOR	0	0	132	229	9

Name of manufacturer^	Model^	No. of first registered e-PCs in the year				
		2014	2015	2016	2017	2018
	MODEL S 85 KWH DUAL MOTOR	0	421	284	0	0
	MODEL S 85 KWH PERFORMANCE DUAL MOTOR	0	431	65	4	0
	MODEL S 85 KWH	218	583	49	0	0
	MODEL S 85 KWH PERFORMANCE	324	121	0	0	0
	MODEL S 90 KWH	0	10	13	0	0
	MODEL S 90 KWH DUAL MOTOR	0	46	601	403	0
TESLA	MODEL S 90 KWH PERFORMANCE DUAL MOTOR	0	59	266	34	0
	MODEL S 100 KWH PERFORMANCE DUAL MOTOR	0	0	2	216	0
	MODEL S 100 KWH DUAL MOTOR	0	0	0	1	3
	MODEL X 60 KWH DUAL MOTOR	0	0	0	404	0
	MODEL X 75 KWH DUAL MOTOR	0	0	0	502	12
	MODEL X 90 KWH DUAL MOTOR	0	0	0	1 105	92
	MODEL X 90 KWH PERFORMANCE DUAL MOTOR	0	0	0	107	0
	MODEL X 100 KWH PERFORMANCE DUAL MOTOR	0	0	0	332	0
	MODEL X 100 KWH DUAL MOTOR	0	0	0	45	4
	ROADSTER	1	0	0	0	0
VOLKSWAGEN	E-GOLF 85KW 24.2KWH CL	0	56	63	7	0
	NEW E-GOLF	0	0	0	6	36
	NEW E-GOLF LIFE	0	0	0	7	7
	Total	845	2 607	3 020	3 860	471

^ Only English names are provided.

Note: Government electric vehicles are not included as government vehicles are not required for registration.

- End -

CONTROLLING OFFICER'S REPLY

ENB245

(Question Serial No. 6271)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Government has cancelled the full first registration tax (FRT) waiver for electric private cars on grounds of “controlling the overall growth of private cars”. However, there has been a subsequent increase in the overall number of private cars and most of them are fuel-powered private cars. Would the Government please advise on the following:

- Has the Administration reviewed the reasons for the on-going growth of private cars subsequent to the above change in policy? If yes, what are the details? If no, what are the reasons?
- Will the Administration increase the FRT concessions for electric private cars to enhance the incentives for the public to purchase zero-emission vehicles? If yes, what are the details? If no, what are the reasons?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 320)

Reply:

Hong Kong has a comprehensive public transport network, with nearly 90% of the passenger trips (or some 12 million in total) made through the public transport system every day. However, members of the public choose to purchase private cars (PCs) and commute by PCs for various reasons. The average annual growth in the number of licensed PCs was about 3.5% in the past 5 years. The Transport and Housing Bureau and the Transport Department have been proactively examining the measures for controlling the number of PCs, including fiscal measures, proposed by the Transport Advisory Committee in its Report on Study of Road Traffic Congestion in Hong Kong.

On promoting electric private cars (e-PCs), the Government's standing policy is to encourage the public to use public transport as far as possible. Should members of the public need to acquire PCs, they are encouraged to choose electric vehicles (EVs). The Government promotes the use of e-PCs in Hong Kong mainly through offering financial incentives, such as tax concession and lower annual vehicle licence fee, and facilitating the development and enhancement of charging networks for e-PCs.

To strike a balance between the objectives of promoting the use of e-PCs and not increasing the overall number of PCs at the same time, the Government introduced the “One-for-One Replacement” Scheme (the Scheme) on 28 February 2018 to encourage existing PC owners to choose EVs when they need to replace their cars. Purchasers of e-PCs who scrap and de-register their eligible old PCs can enjoy a higher first registration tax concession.

Having examined the views from members of the public after the implementation of the Scheme, the Government has decided to relax the eligibility criteria of ownership period and licensed period of an “old private car” under the Scheme with effect from 28 January 2019 until the end of the Scheme (i.e. 31 March 2021). After relaxing the relevant criteria, the number of eligible vehicles has increased by 30% to more than 250 000. The Government considered that the existing arrangement has balanced various factors. The Government will review the relevant arrangement before the end of the current first registration tax arrangement for EVs (i.e. 31 March 2021) as scheduled. There is no plan to change the established arrangement at this stage.

- End -

CONTROLLING OFFICER'S REPLY

ENB246

(Question Serial No. 6272)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding promoting popularisation of electric vehicles (EVs) by international community, would the Government advise on the following:

- The EV Pilot City Programme was launched at the 9th Clean Energy Ministerial (CEM) meeting last year. Has Hong Kong participated in it? If yes, what are the details? If no, what are the reasons?
- The goal to reach 30% sales share for EVs by 2030 was put forward under the EV30@30 Campaign introduced by the CEM in 2017. Will the Government adopt this goal? If yes, what are the specific measures? If no, what are the reasons?
- Did the Government assign officials to visit other countries or cities with higher take-up rates of EVs to study their experience in promoting EVs in the past 3 years? If yes, what are the outcomes of the study? If no, what are the reasons?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 321)

Reply:

(1) Hong Kong has not participated in the EV Pilot City Programme.

(2) Hong Kong is a free market. The Government's policy on promoting electric vehicles (EVs) is to establish measures to encourage and assist market development. In fact, the sales of EVs can be affected by various factors, such as local conditions, development of EVs and the related technologies, economic situations, EV prices, vehicle owners' preferences and availability of suitable EV models and their supply, which are not predictable by the Government.

Nevertheless, the Government will continue to encourage the public to use new energy vehicles in the hope that all newly registered private cars (PCs) in Hong Kong will ultimately be new energy vehicles in the long run. However, as Hong Kong does not have its own automotive industry and all vehicles are imported, the Government must be careful when considering the plan to cease the sale of petrol and diesel vehicles to ensure that there is adequate supply of EVs suitable for use in local environment and situation. As the first

step, we may consider ceasing the first registration of diesel PCs in Hong Kong subject to consultation with stakeholders. Similarly, the Government will also consider whether the first registration of diesel motor cycles should be ceased.

(3) Details of the visits made by the Environmental Protection Department in the past 3 years to study the experience of promoting EVs in other cities are as follows:

Date	Place of visit	Outcome of the visit
April 2017	Shenzhen	To study the battery and charging technologies of electric buses in Shenzhen and have an exchange of information on the implementation of policies and relevant experience.
April 2017	United States	To study the latest information and technological development of the United States in the EV field.
June 2017	Beijing	To study the battery and charging technologies of electric buses in Beijing and have an exchange of information on the implementation of policies and relevant experience.
June 2018	Shenzhen	To study the charging technologies of electric taxis and buses in Shenzhen and have an exchange of information on the implementation of policies and relevant experience.

- End -

CONTROLLING OFFICER'S REPLY

ENB247

(Question Serial No. 6273)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Starting from April 2017, bureaux and departments are required to start conducting regular carbon audits on major government buildings under their management with a view to exploring room for carbon reduction, and to disclose their carbon emissions information.

- Please provide the carbon audit findings in 2017-18, and report on the annual carbon emissions of major government buildings, as well as the room and targets for carbon reduction identified for major government buildings.
- Will the Government consider requiring officials making duty visits outside Hong Kong to arrange carbon offsetting for such visits? What are the details of the estimated additional expenditure for implementing such requirement?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 322)

Reply:

Starting from 2017-18, bureaux and departments are required to conduct carbon audits on major government buildings under their management. The carbon auditing work involves 34 bureaux and departments and over 300 major government buildings of different size and nature. The relevant bureaux and departments will disclose the carbon audit findings to the public through their respective annual environmental performance reports or other means.

The Government has no plan to require officials making duty visits outside Hong Kong to arrange carbon offsetting for their visits.

- End -

CONTROLLING OFFICER'S REPLY

ENB248

(Question Serial No. 6274)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the gradual phasing out of diesel commercial vehicles (DCVs):

- What is the current work progress of the scheme to phase out pre-Euro IV DCVs?
- Will the Government earmark resources in 2019-20 to study granting of ex-gratia payment to gradually phase out Euro IV DCVs? If yes, what are the relevant details, manpower and expenditure?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 323)

Reply:

Diesel commercial vehicles (DCVs) are a major source of roadside air pollution in Hong Kong. To improve roadside air quality and better protect public health, the Environmental Protection Department (EPD) launched an incentive-cum-regulatory scheme in March 2014 to phase out by end of 2019 progressively some 82 000 pre-Euro IV DCVs with a funding of \$11.4 billion for offering an ex-gratia payment to the affected vehicle owners. The ex-gratia payment applications for pre-Euro, Euro I and II DCVs closed at the end of 2015, end of 2016 and end of 2017 respectively. The ex-gratia payment applications for Euro III DCVs will close at the end of 2019. As at the end of February 2019, about 67 200 DCVs have been granted an ex-gratia payment, which represented about 82% of the eligible vehicles, involving a subsidy amount of about \$9.1 billion.

To continuously improve roadside air quality, the EPD plans, by making reference to the existing scheme of phasing out pre-Euro IV DCVs, to adopt an incentive-cum-regulatory approach to progressively phase out about 40 000 Euro IV DCVs by the end of 2023 on a mandatory basis, and grant an ex-gratia payment to owners who scrap and de-register their Euro IV DCVs by the specified deadlines. After the specified deadlines, the licences of relevant DCVs will not be renewed. We are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course. We are striving to report the detailed arrangements to the Advisory Council on the Environment and the Panel on Environmental Affairs of the Legislative Council (Legco) in late 2019/early 2020 after working out the implementation details and

consulting the trade. If positive feedback is received in the consultation with the transport trade, we will seek funding from the Finance Committee of the Legco in a timely manner for the ex-gratia payment scheme and seek manpower resources if necessary.

- End -

CONTROLLING OFFICER'S REPLY**ENB249****(Question Serial No. 6288)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (4) WaterControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide statistics on the enforcement of the Water Pollution Control Ordinance (Cap. 358) in the past 5 years, including the numbers of prosecutions and convictions by types of offences under the Ordinance, as well as the manpower and expenditure involved.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 337)Reply:

The numbers of prosecutions and convictions under the Water Pollution Control Ordinance (Cap. 358) and its Regulations in the past 5 years are tabulated below:

	Year				
	2014	2015	2016	2017	2018
Offences	No. of prosecutions (No. of convictions)				
Section 8(1)(a) of the Water Pollution Control Ordinance (Cap. 358): Discharge waste/polluting matter into the waters of Hong Kong in a water control zone	3(3)	1(1)	0(0)	1(1)	3(2)
Sections 9(1) and 9(2) of the Water Pollution Control Ordinance (Cap. 358): Discharge waste water illegally into a communal sewer or communal drain in a water control zone	9(7)	19(19)	15(13)	13(11)	15(12)
Section 10A of the Water Pollution Control Ordinance (Cap. 358): Liability of directors, etc.	0(0)	15(0) [#]	0(0)	0(0)	0(0)

Section 35(2)(a) of the Water Pollution Control Ordinance (Cap. 358): Contravene the requirements of a notice	0(0)	0(0)	1(1)	0(0)	0(0)
Section 40(a) of the Water Pollution Control Ordinance (Cap. 358): Obstruct an authorized officer in the exercise of statutory powers	0(0)	0(0)	0(0)	1(1)	0(0)
Regulation 17B(1) of the Water Pollution Control (General) Regulations (Cap. 358D): Contravene the provisions of a licence	10(8)	18(11)	13(8)	34(28)	22(18)
Section 27(1) of the Water Pollution Control (Sewerage) Regulation (Cap. 358AL): Contravene the requirements of a notice	0(0)	0(0)	0(0)	0(0)	3(3)
Total	22(18)	53(31)	29(22)	49(41)	43(35)

#The case involved instituting prosecutions against the contractor and its 3 directors respectively under Sections 9 and 10A of the Water Pollution Control Ordinance (Cap. 358) at the same time, and the contractor was convicted by the court.

The enforcement and prosecution work under the Water Pollution Control Ordinance is part of the routine duties of the Environmental Protection Department. There is no separate breakdown on the manpower and expenditure involved in such work.

- End -

CONTROLLING OFFICER'S REPLY**ENB250****(Question Serial No. 6289)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide statistics on the enforcement of the Waste Disposal Ordinance (Cap. 354) in the past 5 years, including the numbers of prosecutions and convictions by types of offences under the Ordinance, as well as the manpower and expenditure involved. Please provide statistics on the enforcement actions against illegal collection, storage and treatment of waste in recycling sites in the past 5 years respectively.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 338)Reply:

Statistics on the enforcement actions taken by the Environmental Protection Department (EPD) under the Waste Disposal Ordinance in the past 5 years, including the numbers of prosecutions and convictions (including the numbers of summonses and fixed penalty notices issued) by types of offences under the Ordinance are as follows:

Year	2014	2015	2016	2017	2018
Offences No. of prosecutions (No. of successful prosecutions)					
Waste import/export Summonses	21(20)	22(18)	27(26)	66(66)	43(38)
Illegal deposit of waste Summonses	63(62)	96(92)	397(394)	198(194)	184(175)
Fixed penalty	84	112	195	177	246

Livestock waste control					
Summonses	11(11)	4(4)	12(11)	3(2)	14(11)
Chemical waste control					
Summonses	15(15)	28(17)	70(70)	190(172)	233(230)
Clinical waste control					
Summonses	2(1)	4(4)	6(6)	4(4)	4(4)
Others					
Summonses	24(17)	17(16)	19(19)	21(20)	7(7)
Total					
Summonses	136(126)	171(151)	531(526)	482(458)	485(465)
Fixed penalty	84	112	195	177	246

As the inspection and monitoring work relating to illegal handling of waste are part of the EPD's routine integrated enforcement and regulatory work, we do not have separate figures for manpower and expenditure involved.

Statistics on the enforcement actions taken by the EPD under the Waste Disposal Ordinance against illegal collection, storage and treatment of waste in recycling sites, including the numbers of prosecutions and convictions, are as follows:

Year	2014	2015	2016	2017	2018
No. of prosecutions by summons	1	1	44	99	160
No. of convicted summonses	1	1	44	91	157

- End -

CONTROLLING OFFICER'S REPLY

ENB251

(Question Serial No. 6297)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please set out the following relevant information on the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) from last year up till now:

- a the expenditure items and expenditure of the WPRS of the Environmental Protection Department last year;
- b the effectiveness of the WPRS;
- c the estimated expenditure of the WPRS in 2019-20.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 346)

Reply:

The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) covering regulated electrical equipment (REE) (i.e. air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors) was fully implemented in 2018. Under the WPRS, suppliers who distribute REE are required to pay a recycling levy for REE distributed in Hong Kong, whilst sellers of REE are required to arrange free statutory removal service for consumers to dispose of an equipment of the same class that they intend to abandon. The disposal licensing control, import and export permit control and landfill disposal ban in respect of e-waste have also come into effect. The Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK), developed by the Government to underpin the WPRS, has also come into full operation. In 2018, the WEEE • PARK processed a total of about 10 830 tonnes of waste REE. The estimated annual operating cost of the WEEE • PARK in 2019-20 is about \$204 million. It is expected that about 18 000 tonnes of waste REE will be treated at the WEEE • PARK in 2019.

The Waste Management Policy Division of the Environmental Protection Department (EPD) is responsible for a number of waste management policies and initiatives, including the implementation of the 3 producer responsibility schemes on waste electrical and electronic equipment, glass beverage containers and plastic beverage containers. We do

not have separate breakdown on the manpower involved in the implementation of these schemes. In 2019-20, the EPD will create 12 permanent posts (including Environmental Protection Officers and Environmental Protection Inspectors) to cope with the additional workload arising from the development and implementation of the above-mentioned schemes.

- End -

CONTROLLING OFFICER'S REPLY

ENB252

(Question Serial No. 6299)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please provide a breakdown of the relevant information regarding the Environmental Protection Department's promotion of indoor air quality (IAQ):

- a The numbers of activities, exhibitions and seminars related to IAQ that were conducted and their expenditures in the past 3 years
- b The estimated numbers of activities, exhibitions and seminars related to IAQ to be conducted and their estimated expenditures in 2019-20
- c The assessment of the effectiveness of the activities, exhibitions and seminars conducted to promote IAQ in the past 3 years

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 348)

Reply:

The Government is committed to promoting the work on improving indoor air quality (IAQ), including enhancing public understanding and awareness of IAQ. The Environmental Protection Department (EPD) launched a voluntary IAQ Certification Scheme for Offices and Public Places (the Certification Scheme) in September 2003 to commend good IAQ management and encourage building/premises owners or property management companies to enhance the IAQ of their premises.

The EPD has engaged Hong Kong Productivity Council to operate the IAQ Information Centre for vetting applications under the Certification Scheme and issuing IAQ certificates, providing information and technical support, as well as promoting the Certification Scheme through organising activities such as exhibitions, seminars, etc. regularly. Since 2006, we have been organising the IAQ Certificate Award Ceremony every year to present awards to organisations that have actively participated in the Certification Scheme and to encourage the participation of other organisations. At the same time, to enhance students' awareness of IAQ, we visit primary and secondary schools and organise seminars and exhibitions every year to explain and promote the importance of maintaining good IAQ to students. In addition, the EPD has been enhancing public awareness of IAQ and the Certification Scheme by organising roving exhibitions, broadcasting promotional messages in different

media, such as radio, television and railway, and putting up posters on buses, trams and trains.

(a) The numbers of activities for promoting IAQ by the EPD and the total expenditures in the past 3 years are tabulated below. As regards the manpower of the EPD, the work was undertaken by the Department with its existing resources.

Financial year	2016-17	2017-18	2018-19
School visit and exhibition	26 times	25 times	28 times
Seminar*	5 times	5 times	4 times
Total expenditure [#] (\$m)	4	3.9	4.9

* Included the IAQ Certificate Award Ceremony cum Technical Seminar.

The total expenditure included the expenditures for operating the IAQ Information Centre, organising the IAQ Certificate Award Ceremony cum Technical Seminar, school visits and other publicity activities in different media.

(b) The estimated numbers of activities for promoting IAQ by the EPD and the estimated total expenditure in 2019-20 are tabulated below.

Financial year	2019-20
School visit and exhibition	About 30 times
Seminar*	5 times
Estimated total expenditure [#] (\$m)	5.1

* Include the IAQ Certificate Award Ceremony cum Technical Seminar.

The total expenditure includes the expenditures for operating the IAQ Information Centre, organising the IAQ Certificate Award Ceremony cum Technical Seminar, school visits and other publicity activities in different media.

(c) In the past 3 years, the number of IAQ certificates issued to premises participating in the Certification Scheme has increased by 23% from 1 332 certificates in 2016 to 1 638 certificates in 2018. These premises included offices, shopping malls, club houses, educational institutions, hotels and other public places. We will continue to organise publicity activities to further enhance public awareness of IAQ.

- End -

CONTROLLING OFFICER'S REPLY**ENB253****(Question Serial No. 6300)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

What measures has the Environmental Protection Department put in place to mitigate the impact of air pollutants from the nearby Pearl River Delta Region on the air quality of Hong Kong?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 349)Reply:

Improving regional air quality has been one of the priority areas of work in Guangdong-Hong Kong Environmental Collaboration. The Environmental Protection Department (EPD) and the Guangdong (GD) Provincial Government have been implementing the emission reduction measures set out in the Pearl River Delta (PRD) Regional Air Quality Management Plan continuously, and have completed the mid-term review on air pollutant emission reduction targets for 2015, as well as finalised the reduction targets for 2020. The details are as follows:

Pollutant	Region ^{Note1}	2015 Emission reduction target ^{Note2}	Actual emission reduction in 2015 (according to the 2015 Emission Inventory Report) ^{Note2}	2020 Emission reduction target ^{Note2}
Sulphur dioxide (SO ₂)	Hong Kong (HK)	-25%	-45%	-55%
	PRD Economic Zone	-16%	-25%	-28%
Nitrogen oxides (NO _x)	HK	-10%	-14%	-20%
	PRD Economic Zone	-18%	-22%	-25%

Respirable suspended particulates (RSP)	HK	-10%	-20%	-25%
	PRD Economic Zone	-10%	-14%	-17%
Volatile organic compounds (VOC)	HK	-5%	-14%	-15%
	PRD Economic Zone	-10%	-11%	-20%

Note 1: The PRD Economic Zone includes Guangzhou, Shenzhen, Zhuhai, Dongguan, Zhongshan, Foshan, Jiangmen, Huizhou and Zhaoqing

Note 2: Reductions are relative to 2010 emission levels

The measures that were taken in the past 3 years, existing measures and proposed new measures to improve air quality through Guangdong-Hong Kong Environmental Collaboration are set out in **Annex**.

The measures to improve air quality through Guangdong-Hong Kong Environmental Collaboration in 2016-2020

Policies/Measures	Details	Manpower and Expenditure Involved	Progress and Effectiveness
Measures that were completed in the past 3 years			
1. Mid-term review study on the 2015 and 2020 air pollutant emission reduction targets	The progress on emission reduction of major air pollutants in the Pearl River Delta (PRD) region was reviewed in order to provide a robust scientific basis for concluding the emission reduction results of the two places for 2015 and finalising the emission reduction targets for 2020.	The study was undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	Hong Kong (HK) and Guangdong (GD) governments set the 2015 emission reduction targets and the 2020 emission reduction ranges for the PRD Region in November 2012, and rolled out various emission reduction measures under the Pearl River Delta Regional Air Quality Management Plan (RAQMP). The two sides commenced the joint mid-term review study in February 2015 and released the results of the study in late 2017, which concluded the achievements of emission reduction in 2015 and finalised the reduction targets for 2020.
2. Guangdong-Hong Kong-Macao Joint Regional PM _{2.5} (fine suspended particulates) Study	The Study aims to understand the formation mechanisms and control of PM _{2.5} pollution in the PRD Region, so as to provide a scientific basis for the formulation of further air quality improvement control strategies to improve regional air pollution problems.	The HK side commissioned a consultant to conduct field sampling, chemical analysis and air quality modelling, etc. The total expenditure was about \$9 million. There is no separate breakdown on the manpower resources and expenditure for the Study.	The Study began in late 2014. GD, HK and Macao completed concurrent field sampling, chemical analysis, air quality modelling and integrated analysis, etc. The Study was completed in 2018.
Existing measures (in order of time of implementation)			

Policies/Measures	Details	Manpower and Expenditure Involved	Progress and Effectiveness
3. Pearl River Delta (PRD) Regional Air Quality Management Plan (RAQMP)	HK and GD have implemented a host of emission reduction measures targeting at key emission sources, including power plants, vehicles, vessels and industrial facilities, etc., as well as regional air quality monitoring.	The RAQMP is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	<p>The RAQMP has been an ongoing collaboration initiative drawn up since December 2003. The annual average levels of SO₂, NO₂ and RSP measured by the PRD Regional Air Quality Monitoring Network (the Network) in 2017 recorded a decrease by 77%, 26% and 34% respectively as compared with 2006. This indicates an improvement in regional air quality brought about by the emission reduction measures implemented by GD and HK in recent years.</p> <p>The Network was enhanced by GD, HK and Macao in September 2014 to provide real-time air quality information of the PRD Region.</p>
4. Cleaner Production Partnership Programme	Launched in April 2008, the Cleaner Production Partnership Programme (the Programme) encourages and facilitates Hong Kong-owned factories in GD and HK to adopt cleaner production technologies and practices through funding support and technology promotion activities, thereby contributing to improving the regional air quality. The Programme has been extended until 31 March 2020.	<p>The Government's expenditure for implementing the Programme from 2008-09 to 2018-19 was around \$280 million.</p> <p>This is part of the EPD's routine work. There is no separate breakdown on the manpower resources and expenditure involved in this Programme.</p>	As at the end of February 2019, over 3 100 funding projects were approved and more than 540 awareness and technology promotion activities were organised under the Programme, attracting over 48 000 participants.

Policies/Measures	Details	Manpower and Expenditure Involved	Progress and Effectiveness
5. Routine monitoring of VOC in the PRD Regional Air Quality Monitoring Network	GD and HK have adopted a progressive approach to include routine monitoring of VOC in the PRD Regional Air Quality Monitoring Network in three phases from 2017 to 2020.	The costs involved for outsourcing the monitoring work at the monitoring station in HK in the past 3 years were about \$3.2 million.	HK and GD have completed the work in Phase 1 in 2017, including considering the coverage and locations of stations for routine VOC monitoring, selecting the parameters to be monitored and monitoring methods, and compiling the standard operating procedures and quality assurance/quality control protocol. Both sides are now undertaking the work in Phase 2, i.e. each selecting one of its stations in the regional network to carry out a pilot of online VOC monitoring and preliminary data analysis in 2018-19 based on the coverage of monitoring stations and the quality control/quality assurance protocol confirmed in Phase 1. For Phase 3 in 2020, both sides will comprehensively review the experience gained in Phase 2, including the operation of the monitoring equipment, expenditure, data quality and the preliminary analysis results, etc., and by making reference to relevant national standards and guidelines, and will fine tune the monitoring protocol and consider increasing the number of VOC routine monitoring stations.

Policies/Measures	Details	Manpower and Expenditure Involved	Progress and Effectiveness
6. Regional air quality forecasting	Targeting at the heavily polluted weather in the PRD region, GD and HK will conduct air quality forecasting meetings at the technical level to jointly forecast the development of heavily polluted weather in the region, analyse and identify the causes so as to formulate and adopt appropriate preventive measures in advance.	The study is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	HK and GD are currently increasing technical exchanges and trainings on air pollution forecasting to enhance forecasting capability.
Proposed new measures			
7. Collaboration on post-2020 regional air pollutant emission reduction	To further improve regional air quality, the HKSAR Government and GD Provincial Government are working together to formulate a regional air pollutant emission reduction plan beyond 2020.	The study is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	HK and GD have established a joint science team and launched a study on post-2020 regional air pollutant emission reduction targets and concentration levels, with a view to formulating an emission reduction plan beyond 2020.
8. Regional three-dimensional (3-D) air pollution monitoring network	HK and GD have their own plans in establishing 3-D air pollution monitoring networks, using light detection and ranging (LiDAR) technology to monitor the formation and transportation of pollutants at heights. The two sides are exchanging preliminary views on whether a regional monitoring network can be established on this foundation.	The EPD is applying for an additional provision of \$55 million to purchase the LiDAR system.	The EPD is applying for an additional provision.

- End -

CONTROLLING OFFICER'S REPLY

ENB254

(Question Serial No. 6301)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please list the programmes the Environmental Protection Department implemented in 2018-19 and to be implemented in 2019-20 to promote the "Food Wise" culture, and provide the relevant expenditures.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 350)

Reply:

The Food Wise Hong Kong Campaign (the Campaign) has promoted a food wise and waste less culture and encouraged behavioural change to reduce food waste in the community through various schemes and activities since its launching in 2013. The schemes and activities held in 2018-19 include:

- The Food Wise Charter – As at February 2019, about 800 organisations have signed the Food Wise Charter and are committed to reducing food waste. The signatories include public organisations and public utilities, commercial and industrial (C&I) sectors, food and beverage sectors, hotel sector, property development and management sectors, higher education institutions, secondary schools, primary schools and kindergartens.
- "Food Wise" Talk – As at February 2019, 104 "Food Wise" talks were held by the Government with a total of over 10 000 participants. The talks helped promote the "Food Wise" messages and mainly introduced the food waste issues, treatment of food waste, food waste separation and recycling, as well as the Campaign, etc.
- "Food Wise" Roving Exhibition – As at February 2019, a total of 22 roving exhibitions were held by the Government at various districts in Hong Kong to bring the message of food wise and waste less to the community and encourage the public to reduce food waste at source. The roving exhibitions featured display panels

with food waste reduction tips, including food trimmings for the second dish recipes, tactics of food storage and purchase management, etc., and let the public share their “Food Wise” wishes and opinions on the exhibition board. These exhibitions attracted over 30 000 visitors in total.

- The “Big Waster” Facebook and Instagram pages – The “Big Waster” symbolising food wastage in the Campaign has strengthened interaction with members of the public, through the Facebook and Instagram pages in which relevant information, including details about food waste reduction, is provided. Up to February 2019, the “Big Waster” Facebook has received more than 61 000 “likes” and there are over 7 000 “followers” on Instagram.
- The Food Wise Eateries Scheme – To continue to encourage the food and beverage sectors to offer portioned meals for customers to choose from, so as to avoid the generation of food waste. As at February 2019, about 320 and 480 eateries have been awarded with gold class and silver class status respectively.

The total estimated expenditure of the Campaign was about \$6.3 million in 2018-19.

The Government will continue to promote the food wise and waste less culture by enhancing the above schemes and activities. The total estimated expenditure of the Campaign is about \$6.6 million in 2019-20.

- End -

CONTROLLING OFFICER'S REPLY

ENB255

(Question Serial No. 7188)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Since the acquisition of the Housing Authority's properties and assets by LINK, it owns many car parks, would the Government advise on the following:

- What measures does the Administration have to urge LINK to provide more electric vehicle (EV) charging facilities in its car parks?
- Has the Administration reflected to LINK directly in the past year that there is a need to provide more EV charging facilities? If yes, what are the details? If no, what are the reasons?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 316)

Reply:

(1) & (2)

The Government's priority is to facilitate and encourage the installation of charging facilities in private premises when planning for the development of charging facilities for electric private cars. Among other measures, the Environmental Protection Department (EPD) established in 2011 a dedicated team and a hotline to provide information and technical support for installation of electric vehicle (EV) charging facilities; and the Government has tightened the granting of concession on gross floor area for new private buildings since April 2011 to encourage developers to provide EV charging-enabling infrastructure, including provision of sufficient power supply, cabling and conduits for all parking spaces at the private car parks of the new buildings concerned.

On the development of public charging networks as supplementary facilities, the Government not only takes the lead in providing and enhancing its public charging facilities at government car parks, but also supports private establishments (including Link Asset Management Limited (LINK)) to set up and enhance non-governmental public charging networks at their car parks. Regarding the government public charging networks, the Government took the lead in 2012 to install 500 public chargers at government public car parks managed by the Transport Department and government car parks managed by the Government Property Agency which are open for public use. To improve the charging

efficiency, the EPD has progressively upgraded standard chargers to medium chargers in the past few years (as compared with standard chargers, medium chargers can reduce the charging time by up to 60%). As at the end of 2018, 2 166 public chargers were provided at government and private car parks in Hong Kong which are open for public use, among which 1 384 were provided by non-government organisations and 782 were provided by the Government.

In 2017, the EPD sent letters to appeal to some large-scale organisations, including LINK, to install medium and quick EV chargers at their car parks and upgrade the existing standard chargers to medium chargers. LINK has stated in its reply that they supported the promotion of EVs and had worked with relevant organisations since 2009 to install EV chargers at its car parks, and that most of the existing chargers had been upgraded to medium or quick chargers. According to the information provided by LINK, there were a total of 69 chargers at LINK's car parks which were open for public use in March 2019, among which 21 were quick chargers.

- End -

CONTROLLING OFFICER'S REPLY**ENB256****(Question Serial No. 3948)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (6) Nature ConservationControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Under the new nature conservation policy introduced in 2004, the Government identified 12 priority sites for enhanced conservation (priority conservation sites), and proposed the implementation of the Management Agreement Scheme (MA Scheme) and the Public-private Partnership Pilot Scheme (PPP Scheme) to conserve these ecologically important sites. Please advise this Committee on the following information on the 12 priority conservation sites:

- (i) The land area;
- (ii) The respective proportion of government land area and private land area;
- (iii) The current land use status;
- (iv) The applications received for the MA Scheme and the PPP Scheme in the past, the approval results of the applications and the progress of the schemes;
- (v) Has the Government reviewed the new nature conservation policy? If yes, please provide the details.

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1051)Reply:

(i) – (iii) The land areas, respective proportions of government land area and private land area and current land use status of the 12 priority sites for enhanced conservation (priority sites) under the new nature conservation policy (NNCP) are tabulated below:

	Priority site for enhanced conservation	Land area (hectares)	Government land area (%)	Private land area (%)	Current land use status
1	Ramsar Site	1 551	94	6	Mai Po Marshes Nature Reserve and fish ponds

	Priority site for enhanced conservation	Land area (hectares)	Government land area (%)	Private land area (%)	Current land use status
2	Sha Lo Tung	55	53	47	Mainly consists of woodland, streams and abandoned agricultural land, and also several village houses
3	Tai Ho	256	86	14	Mainly consists of mangroves and streams, and also farmland and villages
4	Fung Yuen	42	92	8	Fung Yuen Butterfly Reserve, woodland, farmland and orchards
5	Luk Keng Marsh	37	26	74	Marshes and villages
6	Mui Tsz Lam and Mau Ping	46	70	30	Villages, farmland and woodland, some deserted village houses
7	Wu Kau Tang	103	65	35	Villages, abandoned farmland/marshes
8	Long Valley and Ho Sheung Heung	151	35	65	Farmland and ponds
9	Deep Bay Wetland outside Ramsar Site	1 012	41	59	Mainly consists of fish ponds
10	Cheung Sheung	16	72	28	Mainly consists of abandoned farmland/marshes
11	Yung Shue O	32	48	52	Villages, abandoned farmland/marshes
12	Sham Chung	31	55	45	Abandoned farmland/marshes, and also several village houses

(iv) All Management Agreement Scheme (MA Scheme) project applications for funding under the Environment and Conservation Fund (ECF) were approved. The details are as follows:

Priority site for enhanced conservation	Details of the MA Scheme
Ramsar Site	Since 2012, the Hong Kong Bird Watching Society has managed about 700 hectares of fish ponds at Ramsar Site and Deep Bay Wetland outside Ramsar Site under the MA Scheme. Total funding of some

Priority site for enhanced conservation	Details of the MA Scheme
	<p>\$59.2 million has been approved for the project concerned so far. Since the implementation of the MA Scheme, a significant increase in the number of ardeids has been recorded at the fish ponds covered by the project. There was an over 20-fold increase in the mean number of waterbirds recorded as a result of the drain down of fish ponds.</p>
Deep Bay Wetland outside Ramsar Site	(Please refer to the above part about Ramsar Site)
Sha Lo Tung	<p>Since 2018, Green Power Limited has managed about 11 hectares of land under the MA Scheme and carried out agricultural rehabilitation and conservation management activities. Funding of some \$8.5 million has been approved for the project concerned.</p> <p>Since the implementation of the MA Scheme, the project proponent has removed weeds and Mikania micrantha, and commenced an ecological baseline survey.</p>
Fung Yuen	<p>Since 2005, the Environmental Association has managed about 2 hectares of land under the MA Scheme. Total funding of some \$35.34 million has been approved for the project concerned so far.</p> <p>Since the implementation of the MA Scheme, the total number of butterfly species in Fung Yuen has increased from 162 in 2005 to 216 in 2018, representing about 80% of the butterfly species in Hong Kong.</p>
Long Valley and Ho Sheung Heung	<p>Since 2005, the Conservancy Association and the Hong Kong Bird Watching Society have managed over 18 hectares of land under the MA Scheme. Total funding of some \$44.89 million has been approved for the project concerned so far.</p> <p>Since the implementation of the MA Scheme, the total number of bird species recorded in Long Valley increased from 221 in 2005 to 314 in 2018, representing more than 50% of the bird species in Hong Kong.</p>

Apart from the above 5 MA Scheme projects at the priority sites, the ECF is providing funding support for the following 2 MA Scheme projects at country park enclave or private land within country park at present.

Project location	Details of the MA Scheme
Lai Chi Wo (country park enclave)	<p>Since 2017, the Hong Kong Countryside Foundation and the Conservancy Association have managed about 5 hectares of land under the MA Scheme. Funding of some \$7.43 million has been</p>

Project location	Details of the MA Scheme
	<p>approved for the project concerned.</p> <p>Since the implementation of the MA Scheme, the project proponents have carried out agricultural rehabilitation activities at the site. Some uncommon and rare butterfly and dragonfly species have been recorded.</p>
Sai Wan (private land within country park)	<p>Since 2017, the Sai Kung District Community Centre has managed about 0.5 hectare of land under the MA Scheme. Funding of some \$9.46 million has been approved for the project concerned.</p> <p>Since the implementation of the MA Scheme, the project proponent has carried out agricultural rehabilitation activities at the site and commenced an ecological baseline survey.</p>

Under the Public-Private Partnership (PPP) Pilot Scheme promulgated under the NNCP, the Government received a total of 6 applications, which involve lands located at Sha Lo Tung, Tai Ho, Mui Tsz Lam and Mau Ping, Wu Kau Tang, Yung Shue O and Tin Fook Wai (situated at Deep Bay Wetland outside Ramsar Site). Subsequently, the proponent of the Tin Fook Wai project withdrew the application. The Government has been discussing the arrangements of the PPP Scheme with relevant proponents. In April 2008, after consulting the Advisory Council on the Environment, the Government supported the Sha Lo Tung project from the conservation angle. Following years of exploring different options due to the uniqueness of Sha Lo Tung in ecological environment and other aspects, for the purpose of the long-term conservation of Sha Lo Tung, the Chief Executive in Council gave in-principle agreement in June 2017 to the pursuit of a proposal for the contemporaneous surrender of private land with high ecological importance in Sha Lo Tung to the Government and granting of a piece of land at the Shuen Wan Restored Landfill in Tai Po to the Sha Lo Tung Development Company Limited (SLTDC). The Government is discussing the details of the land exchange proposal with the SLTDC.

(v) The Government reviewed and enhanced the arrangements of the MA Scheme and the PPP Pilot Scheme in 2011, including extending the scope of the MA Scheme from 12 priority sites to country park enclaves and private land within county parks. In addition, the Government formulated the long-term conservation mechanism of the PPP Scheme in the same year. Developers are required to make an upfront lump sum donation to the ECF sufficient to support the pledged conservation programmes, and to identify competent bodies as their conservation agents, as well as apply for the funding required from the ECF for implementation of the conservation programmes. These arrangements can facilitate the implementation of the programmes concerned.

The Government will review the implementation and effectiveness of relevant policies and measures from time to time and will conduct review again where necessary.

- End -

CONTROLLING OFFICER'S REPLY

ENB257

(Question Serial No. 4815)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (-) Not Specified

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

(a) Has the Environmental Protection Department conducted any study or test on the fish supply to Hong Kong for marine toxins? If yes, what are the number of samples and results of various tests?

(b) How will the data obtained be used? How can the public and relevant stakeholders obtain the data? If not, will the Environmental Protection Department take forward the relevant work?

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1060)

Reply:

(a) & (b) The Environmental Protection Department (EPD) has monitored the levels of a variety of substances that are potentially toxic in local marine environment, including persistent organic pollutants (POPs), tributyltin (TBT), polycyclic aromatic hydrocarbons (PAHs), phenol, nonylphenol, nonylphenol ethoxylate, fluoride and metals since 2004 to evaluate the long-term changes in levels of the above substances, and to provide scientific basis for formulating water pollution control strategies. Our monitoring results show that they are maintained at relatively low levels and meet local and international standards for the protection of marine life and human health. Relevant information of the monitoring programme is available on the EPD's website:

<https://www.epd.gov.hk/epd/english/environmentinhk/water/hkwqrc/waterquality/toxic.html>

The above monitoring programme does not cover fish supplied to Hong Kong and marine toxins that are not generated by anthropogenic pollution (such as ciguatera toxin). They are under the scope of food safety.

The Centre for Food Safety (CFS) of the Food and Environmental Hygiene Department adopts a risk-based approach through its routine Food Surveillance Programme (FSP) to test ciguatera toxin in fish and related products collected at the import, wholesale and retail

levels to ensure their compliance with the legal requirements in Hong Kong and are fit for human consumption. From 2014 to 2018, under the FSP, the numbers of fish and related product samples tested for ciguatera toxin are tabulated as follows –

Year	2014	2015	2016	2017	2018	Total
Number of samples tested	160	170	280	300	270	1 180

All the test results were satisfactory.

The CFS provides relevant food safety information to the general public and other stakeholders through a multitude of channels, including press releases, CFS website, social media, meetings, pamphlets and other publications.

- End -

CONTROLLING OFFICER'S REPLY**ENB258****(Question Serial No. 5329)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

In the past 5 years, what were the number of cases of illegal dumping of construction waste, the numbers of prosecutions, the number of persons involved, the number of convictions by the court and the penalties imposed each year? What were the number of inspections conducted by the Government on dumping of construction waste, the staffing and financial expenditure involved each year?

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 2045)Reply:

Cases of illegal disposal of construction waste include fly-tipping of construction waste on government land and illegal land filling of construction waste on private land. The numbers of public complaint cases on illegal disposal of construction waste handled by the relevant government departments (including the Environmental Protection Department (EPD), the Agriculture, Fisheries and Conservation Department, the Buildings Department, the Civil Engineering and Development Department, the Drainage Services Department, the Food and Environmental Hygiene Department, the Home Affairs Department, the Lands Department, the Planning Department and the Highways Department), as well as the numbers of inspections, prosecutions, persons involved, convictions by the court and total fine in the past 5 years are tabulated below:

Fly-tipping of construction waste on government land

Year	2014	2015	2016	2017	2018
Number of public complaint cases ¹	7 565	6 499	8 225	10 507	9 876
Number of inspections	13 578	14 889	16 795	13 798	14 927
Number of prosecutions					
(1) Number of summonses issued	58	71	105	80	82

Year	2014	2015	2016	2017	2018
Summonses involving individuals	56	70	101	67	74
Summonses involving companies	2	1	4	13	8
(2) Number of convictions by the court	58	67	101	77	79
(3) Number of Fixed Penalty Notices (FPNs) issued ²	35	32	45	33	54
Total fine (\$) ³	390,000	430,000	890,000	560,000	460,000

Notes:

¹ Including multiple complaints which may arise from a single case.

² The fine level of the FPN is \$1,500.

³ Total fine includes penalties for convictions by summonses and fixed penalties.

Illegal land filling of construction waste on private land

Year	2014	2015	2016	2017	2018
Number of public complaint cases ¹	464	456	571	397	376
Number of inspections	1 257	1 455	1 622	1 662	1 437
Number of prosecutions					
(1) Number of summonses issued	5*	28	52	96	105
Summonses involving individuals	5	22	30	84	94
Summonses involving companies	0	6	22	12	11
(2) Number of convictions by the court	15*	25	41	69	63
Total fine (\$)	340,000	990,000	1,220,000	1,340,000	2,420,000

Notes:

¹ Including multiple complaints which may arise from a single case.

* The number of convictions was compiled by year of conclusion of the cases, therefore the number of convictions was larger than that of prosecutions in 2014.

The relevant enforcement work is part of the routine duties of the EPD and the relevant government departments. We do not have separate figures for the manpower and expenditure involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB259

(Question Serial No. 6190)

Head: (44) Environmental Protection Department

Subhead (No. & title): (700) General non-recurrent

Programme: (-) Not Specified

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

What are the estimated expenditure and work plan for the new item "Trial of retrofitting Euro IV and V double-deck franchised buses with enhanced selective catalytic reduction systems"? Why is it that the funding for this new item has to be sought in the context of the Appropriation Bill 2019 but not individually from the Finance Committee of the Legislative Council?

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 3008)

Reply:

Retrofitting existing diesel buses with emission reduction devices (such as catalytic reduction devices) is one of the effective ways to reduce emissions. The Government retrofitted 1 030 Euro II and III franchised buses with selective catalytic reduction (SCR) systems by the end of 2017, upgrading their emission performance to Euro IV or above level. To further reduce the emissions of buses before their retirement, the Government plans to allocate about \$38 million to fully subsidise franchised bus companies (FBCs) to conduct a trial to retrofit about 60 Euro IV and V double-deck franchised buses of the dominant bus models with enhanced SCR systems (Trial) so as to establish the technical feasibility of the retrofitting work in Hong Kong, and to confirm the emission reduction performance of the enhanced SCR systems from different suppliers under the local driving and operation conditions.

The preparation for the Trial started in early 2019 and the Trial is expected to be completed in 2021. The Government has set up a Task Force comprising the Environmental Protection Department (EPD), the Transport Department (TD), FBCs and local experts to draw up technical specifications and detailed arrangements for the Trial, and monitor and evaluate the operational performance and emission reduction performance of the buses retrofitted with the enhanced SCR systems. If the Trial is successful, the Government will consider fully subsidising the FBCs to retrofit Euro IV and V diesel double-deck buses of qualified models (bus models that have passed the Trial) with enhanced SCR systems, to reduce their emissions before their retirement.

The relevant workload of the Trial is partly absorbed by the existing resources of the EPD and the TD. The EPD will create 2 additional two-year time-limited posts (until end of March 2021; including 1 Environmental Protection Officer and 1 Environmental Protection Inspector) to undertake and follow up on the Trial. The increase in expenditure under the Programme is about \$38 million, mainly for retrofitting of enhanced SCR devices and conducting relevant tests. The TD will also create 2 two-year time-limited posts (until end of March 2021, including 1 Transport Officer II and 1 Motor Vehicle Examiner I) to undertake the relevant work.

It is not a new arrangement to include in the draft Estimates funding proposals for creating commitments or increasing expenditure ceilings for approved commitment items under the General Revenue Account for scrutiny and approval by the Legislative Council (LegCo) in the context of the Appropriation Bill. The Government explained the relevant arrangements to the Finance Committee in early 2015. In this particular case, before the funding proposal was included in the draft Estimates, we provided relevant information to the Panel on Environmental Affairs of the LegCo in December 2018. We have also included the necessary provision for this proposal under the Subhead of Expenditure of the EPD, and provided appropriate information in the Controlling Officer's Report for Members' consideration.

- End -

CONTROLLING OFFICER'S REPLY

ENB260

(Question Serial No. 6363)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the cooking fumes produced by restaurants and the food manufacturing sector, would the Administration provide the following:

1. The number of complaints received and substantiated in the past 5 years, with a breakdown by District Council district;
2. The number of cases in which notices were issued by the Environmental Protection Department (EPD) against excessive emission of cooking fumes to require necessary remedial actions to be taken;
3. The expenditure and establishment of the EPD in controlling emission of cooking fumes from restaurants and the food manufacturing sector in the past 5 years; and
4. Has the EPD proactively inspected restaurants on excessive emission of cooking fumes? If yes, what is the figure? If no, what are the reasons?

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1612)

Reply:

1. The numbers of complaints received by the Environmental Protection Department (EPD) against the emission of oily fumes and cooking odour from restaurants and catering businesses from 2014 to 2018 are given in Annex 1.

In handling the complaints, the EPD will remind the operators of the restaurants and catering businesses to check their air pollution control equipment and carry out proper maintenance work, etc., and when necessary, take further follow-up action. The numbers of cases in which the EPD took follow-up actions from 2014 to 2018, such as giving warnings, issuing statutory notices to require improvement or referring the case to other departments for follow-up, are given in Annex 2.

2. The numbers of statutory notices issued by the EPD relating to the emission of oily fumes and cooking odour from restaurants and catering businesses in accordance with the Air Pollution Control Ordinance from 2014 to 2018 are as follows:

Year	2014	2015	2016	2017	2018
Number of statutory notices	18	25	57	64	54

3. As handling of complaints against oily fumes from restaurants and catering businesses and taking follow-up actions are part of the routine pollution control duties of the EPD, there is no breakdown on the manpower resources and expenditure involved.
4. Besides carrying out investigations in response to complaints, the EPD also conducts proactive inspections on restaurants and catering businesses. The numbers of inspections completed by the EPD from 2014 to 2018 are as follows:

Year	2014	2015	2016	2017	2018
Number of inspections	3 323	3 230	3 735	4 021	3 742

**Complaints against emission of oily fumes and cooking odour
from restaurants and catering businesses from 2014 to 2018**

District Council District	2014	2015	2016	2017	2018
Central & Western	70	152	126	111	133
Wan Chai	100	81	59	93	129
Eastern	105	100	95	80	60
Southern	14	15	16	12	9
Yau Tsim Mong	169	140	110	102	126
Sham Shui Po	128	97	64	69	78
Kowloon City	78	124	97	106	120
Wong Tai Sin	24	37	30	38	35
Kwun Tong	29	57	47	51	33
Tsuen Wan	43	45	34	63	36
Tuen Mun	16	22	35	30	44
Yuen Long	59	32	61	49	54
North	24	13	21	20	21
Tai Po	34	33	33	36	23
Sai Kung	11	47	25	26	17
Sha Tin	39	79	60	51	56
Kwai Tsing	34	38	28	58	29
Islands	12	16	14	12	12
Total	989	1 128	955	1 007	1 015

Complaints against emission of oily fumes and cooking odour from restaurants and catering businesses from 2014 to 2018 (follow-up action required)

District Council District	2014	2015	2016	2017	2018
Central & Western	26	53	22	30	43
Wan Chai	7	13	3	12	8
Eastern	8	10	20	14	20
Southern	3	1	4	3	0
Yau Tsim Mong	51	44	27	54	44
Sham Shui Po	6	10	13	4	15
Kowloon City	5	6	9	31	3
Wong Tai Sin	1	2	2	7	0
Kwun Tong	0	3	4	2	0
Tsuen Wan	13	20	13	27	12
Tuen Mun	2	5	15	7	24
Yuen Long	8	7	2	6	9
North	6	3	5	3	3
Tai Po	7	9	5	13	12
Sai Kung	1	16	5	4	0
Sha Tin	13	49	34	13	28
Kwai Tsing	6	7	8	11	7
Islands	5	8	5	1	2
Total	168	266	196	242	230

- End -

CONTROLLING OFFICER'S REPLY

ENB261

(Question Serial No. 4231)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

What is the recovery rate of the regulated electrical and electronic equipment (REE) since the implementation of the REE policy? What is the difference between such recovery rate and the recovery rate originally expected by the Government?

Asked by: Hon CHOW Ho-ding, Holden (LegCo internal reference no.: 57)

Reply:

The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) has been fully implemented. The Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK), developed by the Government to underpin the WPRS, commenced initial operation in late October 2017 and came into full operation in March 2018. The total design capacity of the WEEE • PARK is about 30 000 tonnes of waste regulated electrical equipment (REE) (i.e. air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors) per year, roughly half of the amount of waste REE generated in Hong Kong every year.

In 2018, the WEEE • PARK processed a total of about 10 830 tonnes of waste REE, exceeding the Government's original estimated processing amount of 9 000 tonnes for that year.

- End -

CONTROLLING OFFICER'S REPLY

ENB262

(Question Serial No. 4995)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding recycling support at the community level, would the Government please provide the following information:

1. The number of projects that provide recycling support at the community level under the 117 Community Waste Reduction Projects (recycling contracts) that have been approved, and the total number of staff employed in these projects at present (please set out by the 18 districts in tabular form).
2. The total number of projects under the Food Waste Recycling Projects in Housing Estates, and the total number of staff employed in these projects at present (please set out by the 18 districts in tabular form).
3. The total number of projects under the On-site Meal Portioning Projects in Schools and the total number of staff employed in these projects at present (please set out by the 18 districts in tabular form).
4. Please set out separately in tabular form the respective total number of staff employed by contractors of the outsourced recycling contracts [including but not limited to the operation of the Chemical Waste Treatment Centre, the WEEE • PARK and the livestock waste treatment facilities (e.g. Ngau Tam Mei Animal Waste Composting Plant), the glass recycling contract for Kowloon, the glass recycling contract for Hong Kong Island and the glass recycling contract for the New Territories, and the operation contracts for the O • PARK1 and the recyclable collection service] .

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 2027)

Reply:

- (1) In the past 5 years (as at 31 December 2018), 122 Community Waste Reduction Projects have been subsidised by the Environment and Conservation Fund (ECF) in total. 1 project officer and 1 project assistant are generally engaged for each project with the funding. Subject to the needs of individual projects, the recipient organisations may engage part-time staff and/or project ambassadors.

The distribution of the Community Waste Reduction Projects in various districts is tabulated below:

District	Community Waste Reduction Projects (no. of projects)
Central and Western	6
Wan Chai	5
Eastern	0
Southern	5
Yau Tsim Mong	4
Sham Shui Po	7
Kowloon City	11
Wong Tai Sin	3
Kwun Tong	1
Kwai Tsing	10
Tsuen Wan	6
Tuen Mun	8
Yuen Long	3
North	11
Tai Po	4
Sha Tin	4
Sai Kung	7
Islands	8
Multi-district	19
Total	122

- (2) – (3) Since 2011, 35 housing estates have been subsidised by the ECF to install food waste treatment facilities and organise relevant educational and promotional activities under the Food Waste Recycling Projects in Housing Estates. Two workers are generally engaged for each participating estate with the funding to handle matters like collection and treatment of food waste and cleaning work.

Since 2009, 127 schools have been subsidised by the ECF to carry out conversion works and install facilities for implementing the On-site Meal Portioning Projects in Schools. As the recipient schools are required to manage the approved projects with their existing resources, we do not have the relevant statistics on the manpower involved.

The distribution of the Food Waste Recycling Projects in Housing Estates and the On-site Meal Portioning Projects in Schools in various districts is tabulated below:

District	Food Waste Recycling Projects in Housing Estates (no. of projects)	On-site Meal Portioning Projects in Schools (no. of projects)
Central and Western	-	-
Wan Chai	-	1
Eastern	3	3

Southern	1	3
Yau Tsim Mong	-	2
Sham Shui Po	1	6
Kowloon City	1	8
Wong Tai Sin	5	9
Kwun Tong	3	11
Kwai Tsing	3	12
Tsuen Wan	3	4
Tuen Mun	3	13
Yuen Long	5	18
North	2	7
Tai Po	2	7
Sha Tin	1	9
Sai Kung	1	10
Islands	1	4
Total	35	127

- (4) For most of the outsourced service contracts, the Environmental Protection Department only sets out the types of services to be provided by the contractors and the standard of service to be attained. Apart from some contracts which specified the number of key staff (such as person-in-charge of the project/ manager), the contracts do not specify the total number of staff required to be employed by the contractor. The contractors should flexibly allocate resources in response to the service needs according to the actual operation requirements.

- End -

CONTROLLING OFFICER'S REPLY**ENB263****(Question Serial No. 7199)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Would the Government please advise this Committee on the following:

- (a) What were the carbon emissions in Hong Kong in the past 5 years?
 (b) What are the estimates for implementing the required mitigation, adaptation and resilience measures to combat climate change in Hong Kong in 2020?

Asked by: Hon CHU Hoi-dick (LegCo internal reference no.: 1055)Reply:

- (a) The greenhouse gas (GHG) emissions in Hong Kong from 2012 to 2016 are as follows:

Year	Total GHG emissions (in kilotonnes carbon dioxide equivalent)
2012	43 000
2013	44 300
2014	45 000
2015	41 700
2016*	41 900

Remark

* Provisional figure subject to revision.

- (b) The Government will continue to implement various measures on mitigation, adaptation, resilience, etc. set out in *Hong Kong's Climate Action Plan 2030+* to combat climate change. The relevant measures have been absorbed as part of the related work programmes or projects of various bureaux and departments. The expenditure and manpower involved are met by the recurrent expenditure of the bureaux and departments concerned or the expenditure of relevant projects.

- End -

CONTROLLING OFFICER'S REPLY**ENB264****(Question Serial No. 4514)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (4) WaterControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

The Government has been proactively promoting a water-friendly culture in recent years. However, there are many adverse comments about the environmental hygiene problems of the existing shorelines and coastal waters. Would the Government advise this Committee on the following:

1. The complaints received about the environmental hygiene of the Eastern Channel of Tseung Kwan O (TKO) in the past 5 years;
2. Please set out the water quality test results of the Eastern Channel of TKO each month in the past 5 years;
3. What specific management measures the Government has in place to improve the water quality of the Eastern Channel of TKO?

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 52)Reply:

1. The numbers of complaints received by government departments including the Environmental Protection Department (EPD), the Drainage Services Department (DSD) and the Food and Environmental Hygiene Department (FEHD) about the environmental hygiene of the Eastern Channel of Tseung Kwan O (TKO) in the past 5 years are tabulated below (some of the complaints might be the same cases but they were referred to multiple departments at the same time):

Table 1: The complaints received by various departments about the environmental hygiene of the Eastern Channel of TKO in the past 5 years

Year/Department	EPD	DSD	FEHD
2014	1	0	2

Year/Department	EPD	DSD	FEHD
2015	7	0	0
2016	9	0	0
2017	10	1	0
2018	0	0	0
Total	27	1	2

2. The EPD conducts routine water quality monitoring within the Junk Bay Water Control Zone with the aim of evaluating the state of water quality in TKO; monitoring the long-term trend in water quality; assessing the overall compliance with the Water Quality Objectives (WQO); and providing a scientific basis for planning water pollution control strategies. The overall WQO compliance rate of marine waters in TKO was 100% in each of the past 5 years (i.e. 2014 to 2018). We do not conduct water quality test or assessment on water quality grading for the Eastern Channel of TKO on a monthly basis.

3. The upstream of the Eastern Channel of TKO and the nearby areas are already covered by public sewerage system and the water quality has been safeguarded. Regarding management of watercourse, the Marine Department and the FEHD are responsible for cleaning up floating refuse and refuse washed up on the shore to maintain environmental hygiene. Besides, the EPD takes enforcement actions in accordance with environmental protection legislations including the Water Pollution Control Ordinance and Waste Disposal Ordinance, to combat acts that affect water quality such as illegal discharge of wastewater and illegal waste disposal.

- End -

CONTROLLING OFFICER'S REPLY

ENB265

(Question Serial No. 4548)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is stated in the Matters Requiring Special Attention in 2019-20 under Programme (1) that the Environmental Protection Department (EPD) will continue with the development of the network of Community Green Stations (CGSs) across the territory to promote environmental protection and waste reduction in the community. In this connection, will the Government advise this Committee on the following:

(1) Please list by month the numbers of visitors and the quantities of different types of recyclables treated (including electrical appliances, computers, glass beverage bottles, compact fluorescent lamps/fluorescent tubes, rechargeable batteries, used books, clothes, waste paper, waste plastics and waste metals) at various CGSs in the past year.

(2) Please list the quantities of different types of recyclables treated (including electrical appliances, computers, glass beverage bottles, compact fluorescent lamps/fluorescent tubes, rechargeable batteries, used books, clothes, waste paper, waste plastics and waste metals) at various CGSs during and after Lunar New Year (January to February 2019).

(3) It was pointed out that the CGSs failed to facilitate the participation of the public in environmental and recycling activities due to their remote locations. What are the Administration's considerations in site selection? Is there a mechanism to review the effectiveness of the CGSs? If yes, what are the details? If no, what are the reasons?

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 92)

Reply:

(1) The Environmental Protection Department (EPD) is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. As at the end of 2018, 7 CGSs have been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and

the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. Details of the quarterly operational statistics of the CGSs in 2018 are set out below:

	1 st Quarter of 2018					2 nd Quarter of 2018				
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po
Quantity of various types of recyclables handled (kg)										
Electrical appliances and computer products	24 881	21 539	17 433	15 082	6 382	13 169	17 312	7 018	10 521	7 502
Glass bottles	87 401	75 191	64 403	51 008	38 726	88 463	76 959	65 979	55 215	65 586
Compact fluorescent lamps/ fluorescent tubes	1 178	1 413	696	787	115	1 050	1 103	444	722	716
Rechargeable batteries	116	507	104	298	243	155	228	80	200	161
Used books	637	123	11	1 068	516	1 343	631	281	1 441	884
Clothing	481	473	401	1 694	1 022	959	1 215	447	1 820	1 941
Waste paper	509	1 039	5 387	6 640	685	412	1 788	6 497	6 183	5 131
Waste plastics	81	1 485	1 358	1 171	1 447	361	2 432	3 831	1 757	5 799
Waste metals	9	269	306	863	121	93	621	594	547	492
Number of educational activities and visitors										
Number of activities	72	75	53	36	96	66	44	67	57	68
Number of visitors	7 295	40 360	6 618	5 383	7 135	7 383	46 211	6 955	5 835	7 821

Note: As the Tuen Mun CGS and the Kwai Tsing CGS commenced operation in late September and November 2018 respectively, only the operational statistics for the 4th quarter of 2018 are available.

	3 rd Quarter of 2018				
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po
Quantity of various types of recyclables handled (kg)					
Electrical appliances and computer products	19 270	17 866	9 687	11 902	17 436
Glass bottles	107 591	81 973	66 774	58 993	71 929
Compact fluorescent lamps/ fluorescent tubes	1 162	620	643	808	403
Rechargeable batteries	238	625	108	121	56
Used books	393	7 748	262	2 047	320
Clothing	486	1 507	264	634	845
Waste paper	82	2 906	4 301	11 175	7 762
Waste plastics	116	2 982	2 596	2 924	7 903
Waste metals	34	710	348	862	2 136
Number of educational activities and visitors					
Number of activities	31	48	48	52	76
Number of visitors	6 164	52 817	7 936	5 430	7 890

	4 th Quarter of 2018						
	Sha Tin	Eastern	Kwun Tong	Yuen Long	Sham Shui Po	Tuen Mun	Kwai Tsing
Quantity of various types of recyclables handled (kg)							
Electrical appliances and computer products	12 371	19 920	13 062	17 327	15 874	7 264	1 003
Glass bottles	93 387	80 975	65 572	63 632	101 277	61 091	33 539
Compact fluorescent lamps/ fluorescent tubes	804	887	601	749	406	352	550
Rechargeable batteries	409	469	108	475	203	115	17
Used books	650	1 102	856	987	442	0	210
Clothing	580	1 107	485	971	1 257	0	778
Waste paper	297	4 000	3 367	8 693	11 691	431	1 420
Waste plastics	235	3 282	2 970	3 413	10 776	470	1 661
Waste metals	354	633	403	2 321	1 118	46	48
Number of educational activities and visitors							
Number of activities	37	45	45	47	68	41	30
Number of visitors	7 330	50 132	9 047	5 278	8 940	15 924	2 308

- (2) The CGSs have been providing regular recycling support for the above various types of recyclables in the districts. As the statistics on the quantities of recyclables recovered in January and February 2019 are still being compiled, the EPD does not have the relevant data for the time being.
- (3) On the site selection for a CGS, the site area should generally be no less than 1 500 square metres and we have, as far as practicable, been identifying sites that are conveniently located to facilitate visits by local residents. Despite the fact that it is quite challenging to identify suitable sites in densely populated areas, we understand the

importance of bringing convenience to the public and will therefore avoid setting up the CGS in remote area of the district. The CGSs currently in service or under planning and construction broadly meet the above site selection criteria. In addition, the CGS operators will set up mobile collection points in the relevant districts to provide more channels and flexibility for the collection of recyclables. The CGS operators will also send collection vehicles to pick up recyclables at different locations within their respective districts

- End -

CONTROLLING OFFICER'S REPLY

ENB266

(Question Serial No. 4549)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is pointed out in the Brief Description of Programme (2) that the work carried out by the Environmental Protection Department in seeking to achieve and maintain satisfactory air quality includes collaboration with authorities in Guangdong to carry out the Cleaner Production Partnership Programme and implement measures to improve regional air quality. Would the Government advise this Committee on the following:

- (1) What were the staff establishment and operational expenditure arranged and allocated by the Administration for collaboration with authorities in Guangdong and implementation of cleaner production work in the past 3 years (2016-17 to 2018-19)?
- (2) What are the estimated staff establishment and operational expenditure to be arranged and allocated by the Administration for collaboration with authorities in Guangdong and implementation of cleaner production work in 2019-20?
- (3) Did the Administration set any emission reduction indicators or targets with authorities in Guangdong, Pearl River Delta Region or the Mainland in the past 3 years (2016-17 to 2018-19)? If yes, what were the details? If no, what were the reasons?
- (4) Has the Administration assessed whether the relevant emission reduction targets could achieve their effects? If yes, what are the details? If no, what are the reasons?

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 93)

Reply:

(1) & (2)

Launched in April 2008, the Cleaner Production Partnership Programme (the Programme) encourages and facilitates Hong Kong-owned factories in Guangdong (GD) and Hong Kong (HK) to adopt cleaner production technologies and practices through funding support and technology promotion activities, thereby contributing to improving the regional air quality. The current phase of the five-year Programme received a funding of \$150 million and will end on 31 March 2020. The expenditure

incurred by the Environmental Protection Department (EPD) in the past 3 years (2016-17 to 2018-19) was as follows:

Financial year	2016-17	2017-18	2018-19
Expenditure (HK\$'000)	31,632	35,618	43,969

It is expected that an amount of \$13,038,000 can be spent in 2019-20 and the total amount of funding will be used up by 2019-20. The EPD will timely consult the trade and industry to make preparations for the future development of the Programme.

As the implementation of the Programme is part of the EPD's routine work, there is no separate breakdown on the manpower resources and expenditure involved in this Programme.

(3) & (4)

The Hong Kong Special Administrative Region (HKSAR) Government and GD Provincial Government have been striving to reduce emissions from major air pollution sources, including power plants, vehicles and industries, etc., in the Pearl River Delta (PRD) Region since 2002. In 2012, the HKSAR and GD governments endorsed a set of 2015 emission reduction targets and 2020 emission reduction ranges of 4 major air pollutants (i.e. sulphur dioxide (SO₂), nitrogen oxides (NO_x), respirable suspended particulates (RSP) and volatile organic compounds (VOC)) for HK and the PRD Economic Zone, adopting 2010 as the base year.

Both HK and GD jointly released the results of the mid-term review on air pollutant emission reduction targets in the PRD Region in December 2017, confirming that both sides had achieved their respective 2015 emission reduction targets and finalised the reduction targets for 2020. The details are as follows:

Pollutant	Region ^{Note1}	2015 emission reduction target ^{Note2}	Actual emission reduction in 2015 (according to the 2015 Emission Inventory Report) ^{Note2}	2020 emission reduction target ^{Note2}
SO ₂	HK	-25%	-45%	-55%
	PRD Economic Zone	-16%	-25%	-28%
NO _x	HK	-10%	-14%	-20%
	PRD Economic Zone	-18%	-22%	-25%
RSP	HK	-10%	-20%	-25%
	PRD Economic Zone	-10%	-14%	-17%
VOC	HK	-5%	-14%	-15%
	PRD Economic Zone	-10%	-11%	-20%

Note 1: The PRD Economic Zone includes Guangzhou, Shenzhen, Zhuhai, Dongguan, Zhongshan, Foshan, Jiangmen, Huizhou and Zhaoqing

Note 2: Reductions are relative to 2010 emission levels

The HKSAR Government and GD Provincial Government are continuing to implement the control measures under the Pearl River Delta Regional Air Quality Management Plan to meet the above emission reduction targets for 2020. The key emission reduction measures implemented by HK include: requiring power plants to increase the use of natural gas in electricity generation; progressively tightening emission caps for power plants; tightening vehicle emission standards for newly registered vehicles to Euro VI; continuing to phase out pre-Euro IV diesel commercial vehicles; and collaborating with the GD Provincial Government on the implementation of ambient pollution control on vessels, etc.

The key emission reduction measures implemented by GD include: various enhancement measures on air pollution prevention and control such as controlling the pollutant emissions of coal-fired thermal power plants; advancing the implementation of National VI emission standards for motor vehicles in the PRD Region; promoting the use of electric buses and other new energy vehicles; introducing remedial measures to tackle pollution caused by diesel goods vehicles; upgrading the emission control standards for vessels; promoting pollution prevention and control for non-road mobile machinery; enhancing VOC pollution prevention and control; enhancing management of construction sites and transportation dust as well as total prohibition of open burning, etc.

Apart from these, to further improve the regional air quality, HK and GD have launched a study on post-2020 regional air pollutant emission reduction targets and concentration levels for HK and GD, in which emission reduction plan beyond 2020 will be formulated.

- End -

CONTROLLING OFFICER'S REPLY

ENB267

(Question Serial No. 4550)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (4) Water

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is stated in Matters Requiring Special Attention in 2019-20 under Programme (4) that the Environmental Protection Department will continue to co-operate with the Guangdong authorities on cross-boundary water quality management issues and protection of the marine environment. Would the Government advise this Committee on the following:

- (1) What were the staff establishment and operational expenditures arranged and allocated by the Administration for co-operation with the Guangdong authorities on cross-boundary water quality management issues and protection of the marine environment in the past 3 years (2016-17 to 2018-19)?
- (2) What are the estimated staff establishment and operational expenditure to be arranged and allocated by the Administration for co-operation with the Guangdong authorities on cross-boundary water quality management issues and protection of the marine environment in 2019-20?
- (3) Does the Administration have any plan to set indicators or targets for cross-boundary water quality management and protection of the marine environment with the Guangdong authorities or the relevant Mainland authorities in 2019-20? If yes, what are the details? If no, what are the reasons?

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 94)

Reply:

(1) and (2) As cross-boundary water quality management issues and protection of the marine environment are part of the routine work of the Environmental Protection Department (EPD) staff, there is no separate breakdown on the staff establishment and expenditure involved.

(3) The EPD and the Department of Ecology and Environment of Guangdong Province (formerly known as Department of Environmental Protection of Guangdong Province) completed a Pearl River Estuary Regional Water Quality Joint Management Planning Advance Study at the end of 2014. The objective of the study is to assess the pollution load carrying capacity of the Pearl River Estuary by using the Pearl River Delta water

quality model. The study would provide a scientific basis for water quality management of the estuary. Following the recommendations of the study, both sides jointly formulated the Pearl River Estuary Water Quality Management Co-operation Plan (Co-operation Plan) at the end of 2016. In 2019-20, Hong Kong and Guangdong will continue to work together to take forward measures to reduce pollutant discharge and strengthen communication and exchange of monitoring data on the water quality of the estuary and coastal waters according to the concrete work plans of the Co-operation Plan, so as to achieve the common goal of protecting the water quality of the estuary.

In addition, the EPD and the Shenzhen Municipal Ecology and Environment Bureau (formerly known as Human Settlements and Environment Commission of Shenzhen Municipality) completed the second review of the Deep Bay (Shenzhen Bay) Water Pollution Control Joint Implementation Programme (the JIP) at the end of 2016. The results indicated that there had already been a reduction in the amount of pollutants discharged into Deep Bay and a material improvement in water quality of the bay. In 2019-20, Hong Kong and Shenzhen will continue to implement the jointly formulated JIP (2016 revised version) to make continuous improvement to the water quality of Deep Bay.

As for the co-operation on the protection of the marine environment, Hong Kong and Guangdong set up the Hong Kong-Guangdong Marine Environmental Management Special Panel (Special Panel) in 2016, under the framework of the Hong Kong-Guangdong Joint Working Group on Sustainable Development and Environmental Protection, to enhance exchange and communication on various regional marine environmental matters. These would include, among other things, formulating strategies in tackling Hong Kong-Guangdong marine environmental management issues, setting up a notification and alert system on marine refuse and sharing of experience, etc. In 2019-20, Hong Kong and Guangdong will continue to follow up with the work of both sides in tackling marine refuse and marine environmental incidents, as well as exchange views and share experience in various aspects to strengthen cross-boundary co-operation.

- End -

CONTROLLING OFFICER'S REPLY**ENB268****(Question Serial No. 4557)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (3) NoiseControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Under this Programme, the tasks of the Environmental Protection Department include enforcement of the Noise Control Ordinance (Cap. 400).

Domestic noise causes great annoyance to the public. However, under the current policy, residents' complaints are not properly handled and there is also a lack of review and follow-up actions. Would the Government advise this Committee on the following:

1. Please set out the respective numbers of complaints about domestic noise and prosecutions instituted in various districts in the past 5 years, with a breakdown by 18 districts of Hong Kong;
2. Will the Administration improve the procedures of handling complaints about domestic noise, deploy additional manpower, lower the prosecution threshold and update the testing equipment?

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 102)

Reply:

- 1) The numbers of complaints about noise emanated from domestic premises (neighbours) received by the Environmental Protection Department (EPD) in each of the past 5 years are as follows:

Year	2014	2015	2016	2017	2018
District					
Central & Western	18	25	10	25	15
Eastern	22	26	14	13	16
Southern	11	11	3	1	7
Wan Chai	20	25	7	7	4
Kowloon City	13	10	2	12	15

Kwun Tong	11	10	9	5	14
Sham Shui Po	16	12	6	10	2
Yau Tsim Mong	18	19	10	9	17
Wong Tai Sin	4	8	3	7	7
Islands	13	10	4	2	5
Kwai Tsing	24	23	9	6	8
North	14	8	5	15	15
Sai Kung	11	20	9	13	16
Sha Tin	32	14	22	24	21
Tai Po	8	8	8	9	7
Tsuen Wan	10	11	2	4	8
Tuen Mun	9	12	5	9	5
Yuen Long	13	21	19	18	40
Total	267	273	147	189	222

Note: The Police do not have the relevant figures

- 2) The provisions of the Noise Control Ordinance (NCO) are enforced by the EPD and the Police. For sections 4 and 5 of the NCO regarding control of noise emanated from domestic premises, the daily complaints from the public and enforcement work are mainly handled by the Police. Upon receipt of complaints about noise emanated from domestic premises, the EPD, after asking the complainants for information, will explain the regulatory arrangement of the NCO and will refer the cases to the Police for follow up as appropriate. The EPD will also provide the contact telephone number of the police station in the district concerned for the complainants to facilitate their contact with the Police for immediate follow up when necessary. The EPD operates a 24-hour hotline to receive public complaints against noise problems. The hotline is manned by the staff during office hours and served by a recording system outside office hours and on public holidays. The Administration will continue to take enforcement actions in accordance with the NCO and enhance the procedures for noise complaint handling and evidence collection, having regard to the actual circumstances and through flexible deployment of staff.

- End -

CONTROLLING OFFICER'S REPLY

ENB269

(Question Serial No. 4561)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (6) Nature Conservation

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

In 2019-20, the Environmental Protection Department (EPD) will continue to oversee the operation and management of country parks, and the work on designating Robin's Nest in Sha Tau Kok as a new country park. Please advise on the following:

1. What are the specific details, staff establishment and total salary expenditure of the Department's work to oversee the operation and management of country parks? Of which, how much is involved in the work on the new country park in Robin's Nest?
2. How many country trails and eco-tourism facilities will be provided in the new country park in Robin's Nest? Please provide the relevant planning and design information as well as the implementation timetable;
3. During the process of establishing the new country park in Robin's Nest, if any historical relics are discovered, how will the Department carry out conservation work?

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 106)

Reply:

1. The Environmental Protection Department (EPD) is responsible for formulating policies and co-ordinating and overseeing the implementation of programmes on nature conservation, including legislative work regarding the designation of suitable areas as country parks, etc. As the work on designating the proposed Robin's Nest Country Park (RNCP) is part of the routine duties of the EPD, there is no separate breakdown on the relevant personnel establishment and salary expenditure involved.

2. The Agriculture, Fisheries and Conservation Department (AFCD) has commissioned a consultant to assist it to conduct planning, design and consultation work for the proposed RNCP. The consultant's preliminary proposals include constructing a few hiking trails in Robin's Nest that will connect the park's north-south and east-west directions respectively,

and providing park facilities such as picnic sites, viewing points, rain shelters, interpretative panels that introduce the natural ecology and culture and information boards with maps, etc. in suitable areas. The AFCD is considering the relevant proposals and consulting the stakeholders. It is expected that the AFCD can initiate the statutory procedures for designating country parks under the Country Parks Ordinance (Cap. 208) in late 2019.

3. The study of the AFCD has confirmed that there are historical relics with conservation value within the area of the proposed RNCP. The AFCD will strive to protect these historical relics when constructing park facilities and provide interpretative panels at appropriate locations to introduce the history and conservation value of these relics to the public.

- End -

CONTROLLING OFFICER'S REPLY**ENB270****(Question Serial No. 5172)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

It is mentioned under Programme (1) that the Environmental Protection Department's estimate financial provision for waste treatment in 2019-20 is \$4,107,100,000.

- (1) Please set out the contract payments for the Chemical Waste Treatment Centre, refuse transfer stations, landfills and T • PARK in the past 3 years;
- (2) Please set out the estimated operation cost of the South East New Territories (SENT) Landfill and the specific expenditure of the diversion of municipal solid waste from the SENT Landfill in 2019-20; and
- (3) Please set out the numbers of complaints about odour problem of the SENT Landfill received in the past 3 years.

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 98)Reply:

- (1) The operation costs for the Chemical Waste Treatment Centre, refuse transfer stations, landfills and T • PARK in the past 3 years are shown in the tables below:

	Operation cost (\$m)		
	2016-17 Actual	2017-18 Actual	2018-19 Revised estimate
Chemical Waste Treatment Centre	203	219	332
T • PARK	237	250	257

Refuse Transfer Station	Operation cost (\$m)		
	2016-17 Actual	2017-18 Actual	2018-19 Revised estimate
Shatin Transfer Station	46	52	57

West Kowloon Transfer Station	173	177	192
Island East and Island West Transfer Stations	159	172	182
Outlying Islands Transfer Facilities	51	53	55
North Lantau Transfer Station	34	35	37
North West New Territories Refuse Transfer Station	38	49	49
Total	501	538	572

Landfill	Operation cost (\$m)		
	2016-17 Actual	2017-18 Actual	2018-19 Revised estimate
South East New Territories (SENT) Landfill	191	197	205
North East New Territories (NENT) Landfill	181	223	218
West New Territories (WENT) Landfill	293	361	366
Total	665	781	789

(2) The estimated operation cost of the SENT Landfill in 2019-20 is \$217 million. Diversion of municipal solid waste from the SENT Landfill was carried out in January 2016 and the operation of various waste management facilities has now been regularised. For this reason, there is no relevant breakdown on the estimated operation cost for various waste management facilities in 2019-20 in this regard.

(3) The numbers of complaints received by the Environmental Protection Department relating to the odour problem of the SENT Landfill in the past 3 years are as follows:

Year	No. of odour complaints
2016	4
2017	49
2018	8

- End -

CONTROLLING OFFICER'S REPLY

ENB271

(Question Serial No. 5173)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Under Programme (2), there will be a net increase of 21 posts in the Environmental Protection Department in 2019-20, which is higher than the net increase of 7 posts in 2018-19. Please advise on the following:

1. What are the respective duties, names of the posts, ranks and total salary expenditure for the net increase of 21 posts?
2. The work under this Programme includes co-ordination of the efforts in combating climate change. Please provide the details of the actual work in 2018-19 and the anticipated work in 2019-20, including educational and publicity expenditures, number and time of meetings or activities held, details of co-operation with the Guangdong authorities in combating climate change.
3. When will the Administration set the carbon emission reduction target for 2050? What are the details?

Asked by: Hon FAN Kwok-wai, Gary (LegCo internal reference no.: 108)

Reply:

1. The estimated notional annual salary cost at mid-point incurred by the 21 new posts to be created in the Environmental Protection Department (EPD) under "Programme (2) Air" in 2019-20 is about \$14 million. These posts are mainly for implementing various air quality improvement measures, including control of vehicular emissions, promotion of electric vehicles, enhancement of the air quality monitoring network, etc. Details of the post titles and pay scales are as follows:

Post	Pay Scale	Net Increase
Environmental Protection Officer/ Assistant Environmental Protection Officer	Master Pay Scale Point 27 - 44 (Environmental Protection Officer)	+8
	Master Pay Scale Point 16 - 21 (Assistant Environmental Protection Officer)	
Senior Environmental Protection Inspector	Master Pay Scale Point 22 - 28	+1
Environmental Protection Inspector	Master Pay Scale Point 8 - 21	+4
Senior Executive Officer	Master Pay Scale Point 34 - 44	+1
Executive Officer I	Master Pay Scale Point 28 - 33	+1
Electrical and Mechanical Engineer/ Assistant Electrical and Mechanical Engineer	Master Pay Scale Point 32 - 44 (Electrical and Mechanical Engineer)	+4
	Master Pay Scale Point 18 - 27 (Assistant Electrical and Mechanical Engineer)	
Electrical Inspector	Master Pay Scale Point 24 - 33	+1
Motor Vehicle Examiner II	Master Pay Scale Point 24 - 33	+1
Total		+21

2. Under “Programme (2) Air”, the EPD is responsible for co-ordinating the efforts in combating climate change, including the provision of secretariat services for the Steering Committee on Climate Change (the Committee). The Committee, led by the Chief Secretary for Administration, is tasked to steer and co-ordinate the climate actions of various bureaux and departments and a total of 2 meetings were held in 2018.

In respect of publicity and education efforts, the EPD publishes information on combating climate change by means of television and radio announcements of public interests as well as a dedicated website. Last year, we launched the Low Carbon Living Calculator to encourage members of the public to assess their individual carbon emissions and practise low carbon living. Apart from public education, the EPD also encourages listed companies in Hong Kong to disclose carbon emissions information and share good practices in carbon management. In this connection, we have launched the Carbon Footprint Repository for Listed Companies in Hong Kong in the form of a dedicated website. We also organised the Carbon Audit Seminar for Listed Companies in October 2018, which attracted the participation of over 250 representatives from about 170 listed companies.

In addition, the Government has taken the lead in conducting carbon audits for major government buildings and public facilities under its management to encourage the private sector to strengthen their efforts in combating climate change. The EPD will continue to help relevant bureaux and departments to carry out the work in this area, including organising carbon audit workshops, providing a technical support hotline and updating the carbon audit tools in a timely manner.

As regards regional collaboration, the EPD has all along been co-ordinating with the Guangdong authorities regarding the co-operation and exchange between the two places in combating climate change. Since October 2018, the work on the Guangdong side has been

taken up by the Department of Ecology and Environment of Guangdong Province and the EPD will continue to work with this Department.

As combating climate change is an integral part of EPD's work, the manpower and expenditure required are met by the recurrent expenditure and we do not have a breakdown of the figures.

3. Pursuant to the Paris Agreement, all Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies by 2020. As part of China as well as a responsible member of the global community, the Hong Kong Special Administrative Region needs to draw up our own long-term decarbonisation strategy up to 2050 by 2020. To this end, the Government has invited the Council for Sustainable Development (SDC) to conduct a public engagement (PE) exercise. Through a bottom-up approach with active participation by stakeholders, the PE could help arouse public awareness of the impact of carbon emissions and gauge the views of the community in developing Hong Kong's long-term decarbonisation strategy up to 2050.

The SDC conducted 6 focus group meetings with stakeholders and experts from the relevant sectors in 2018 to solicit their views on the strategy and direction for the PE exercise. The SDC is now preparing the PE document by making reference to stakeholders' views, and plans to issue the PE document in the first half of 2019. Taking into account the views collected in the public interaction stage as well as the recommendations of the SDC, the Government will strive to conclude by 2020 the development of Hong Kong's long-term decarbonisation strategy up to 2050, so that the Central People's Government will put forward the strategy to the secretariat of the United Nations Framework Convention on Climate Change.

- End -

CONTROLLING OFFICER'S REPLY

ENB272

(Question Serial No. 3565)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (4) Water

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding discharge from landfills, please advise on the following:

- (a) What were the expenditure and manpower establishment for handling discharge from landfills in the past 3 years (2016-17 to 2018-19)?
- (b) How many times did the contractors responsible for handling discharge from landfills fail to meet the contractual requirements in the past 3 years (2016-17 to 2018-19)?
- (c) What were the daily amounts of discharge from various major sewage treatment plants managed by the Drainage Services Department, landfills managed by the Environmental Protection Department and wastewater treatment facilities of power plants operated by the private sector, as well as the water quality monitoring data (including the annual mean of major water quality data and discharge limit indicated by the monitoring data of the facilities) in the past 3 years (2016-17 to 2018-19)?
- (d) How will the Administration ensure that such discharge will not affect fisheries and fisheries resources? How will the Administration continue to improve the quality of the discharge?

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 84)

Reply:

(a) Management and monitoring of the operation of landfills is mainly carried out by the Environmental Infrastructure Division of the Environmental Protection Department (EPD). We do not have a separate breakdown of the manpower resources required for individual tasks.

(b) In the past 3 years (2016-17 to 2018-19), the contractor of the Pillar Point Valley Restored Landfill in Tuen Mun failed to meet the contractual requirement on leachate discharge for 21 times from 2016 to 2017, while the contractor of the West New Territories Landfill failed to meet the contractual requirement on leachate discharge for 1 time from 2018 to 2019. The EPD has handled/will handle the situations concerned in accordance with the relevant provisions in the contracts.

(c) The discharge flow rates and effluent quality monitoring data of the major sewage treatment works managed by the Drainage Services Department (DSD), leachate treatment plants of landfills managed by the EPD and sewage treatment facilities of power stations operated by the private sector in the past 3 years are set out in detail in the following tables.

Major Sewage Treatment Facilities in Hong Kong and Their Effluent Quality Data
(1) Major Sewage Treatment Works Managed by the DSD

Name	Maximum Discharge Limit in the licence granted under the Water Pollution Control Ordinance (WPCO Licence) (x1000m ³ /day)	Annual Average of Effluent Quality as shown in the Facilities' Monitoring Data (Year 2016, 2017, 2018)		
		Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L)
Chemically Enhanced Primary Treatment				
Stonecutters Island Sewage Treatment Works	4 000	2016: 70 2017: 61 2018: 62 (Discharge Upper Limit: 170/150) (See Note 2)	2016: 46 2017: 50 2018: 49 (Discharge Upper Limit: 114)	Not Applicable (See Note 1)
Pillar Point Sewage Treatment Works	525	2016: 93 2017: 84 2018: 96 (Discharge Upper Limit: 360)	2016: 64 2017: 50 2018: 44 (Discharge Upper Limit: 240)	Not Applicable (See Note 1)
Siu Ho Wan Sewage Treatment Works	360	2016: 48 2017: 68 2018: 76 (Discharge Upper Limit: 200)	2016: 66 2017: 50 2018: 62 (Discharge Upper Limit: 200)	Not Applicable (See Note 1)
Sham Tseng Sewage Treatment Works	50.5	2016: 63 2017: 44 2018: 37 (Discharge Upper Limit: 220)	2016: 48 2017: 53 2018: 45 (Discharge Upper Limit: 180)	Not Applicable (See Note 1)
Secondary Treatment				
Sha Tin Sewage Treatment Works	1 020	2016: < 5 2017: < 5 2018: < 5 (Discharge Upper Limit: 40)	2016: < 10 2017: < 8 2018: < 7 (Discharge Upper Limit: 60)	2016: < 8 2017: < 10 2018: < 11 (Discharge Upper Limit: 35)
Tai Po Sewage Treatment Works	250	2016: < 5 2017: < 5 2018: < 5 Discharge Upper	2016: < 7 2017: < 7 2018: < 9 (Discharge	2016: < 8 2017: < 10 2018: < 10 (Discharge

Name	Maximum Discharge Limit in the licence granted under the Water Pollution Control Ordinance (WPCO Licence) (x1000m ³ /day)	Annual Average of Effluent Quality as shown in the Facilities' Monitoring Data (Year 2016, 2017, 2018)		
		Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L)
		Limit: 40)	Upper Limit: 60)	Upper Limit: 35)
Shek Wu Hui Sewage Treatment Works	240	2016: < 5 2017: < 5 2018: < 5 (Discharge Upper Limit: 40)	2016: < 9 2017: < 7 2018: < 7 (Discharge Upper Limit: 60)	2016: < 7 2017: < 9 2018: < 7 (Discharge Upper Limit: 28) (See Note 3)
Yuen Long Sewage Treatment Works	210	2016: < 6 2017: < 6 2018: < 7 (Discharge Upper Limit: 40)	2016: < 8 2017: < 10 2018: < 14 (Discharge Upper Limit: 60)	Not Applicable (See Note 1)
Stanley Sewage Treatment Works	34.7	2016: < 3 2017: < 4 2018: < 4 (Discharge Upper Limit: 40)	2016: < 4 2017: < 4 2018: < 3 (Discharge Upper Limit: 60)	2016: < 5 2017: < 4 2018: < 5 (Discharge Upper Limit: 26) (See Note 3)
Sai Kung Sewage Treatment Works	24	2016: < 5 2017: < 5 2018: < 5 (Discharge Upper Limit: 40)	2016: < 6 2017: < 6 2018: < 6 (Discharge Upper Limit: 60)	2016: < 4 2017: < 4 2018: < 4 (Discharge Upper Limit: 24)

Notes:

- (1) Discharge upper limits and the water quality monitoring requirements are formulated based on the design of the sewage treatment facilities and their environmental impact to the relevant receiving waters.
- (2) The discharge upper limit of biochemical oxygen demand of the Stonecutters Island Sewage Treatment Works has been updated to 150 mg/L since 3 March 2017.
- (3) The figure stated is the sum of the amounts of ammonia nitrogen, nitrate nitrogen and nitrite nitrogen in the water sample(s).

(2) Leachate Treatment Plants at Landfills Managed by EPD

Name	Maximum Discharge Limit in the WPCO Licence (m ³ /day)	Annual Average of Discharge Quality as shown in the Facilities' Monitoring Data (Year 2016, 2017, 2018)		
		Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L)
Pillar Point Valley Landfill	2 600	2016: 3 2017: 4 2018: 5	2016: 4 2017: 7 2018: 7	2016: 85 2017: 86 2018: 76

Name	Maximum Discharge Limit in the WPCO Licence (m ³ /day)	Annual Average of Discharge Quality as shown in the Facilities' Monitoring Data (Year 2016, 2017, 2018)		
		Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L)
		(Discharge Upper Limit: 800)	(Discharge Upper Limit: 800)	(Discharge Upper Limit: 100)
Tseung Kwan O Stage I Landfill, Tseung Kwan O Stage II/III Landfill (See Note 4)	1 450	2016: 9 2017: 10 2018: 9 (Discharge Upper Limit: 800)	2016: 4 2017: 9 2018: 6 (Discharge Upper Limit: 800)	2016: 48 2017: 46 2018: 52 (Discharge Upper Limit: 200)
Siu Lang Shui Landfill, Ma Tso Lung Landfill, Ngau Tam Mei Landfill and Gin Drinkers Bay Landfill (See Note 4)	480	2016: 19 2017: 17 2018: 22 (Discharge Upper Limit: 800)	2016: 6 2017: 6 2018: 7 (Discharge Upper Limit: 800)	2016: 69 2017: 62 2018: 69 (Discharge Upper Limit: 200)
Sai Tso Wan Landfill, Ngau Chi Wan Landfill, Jordan Valley Landfill, Ma Yau Tong West Landfill and Ma Yau Tong Central Landfill (See Note 5)	<u>Jordan Valley Landfill</u> 350	<u>Jordan Valley Landfill</u> 2016: 19 2017: 28 2018: 23 (Discharge Upper Limit: 800)	<u>Jordan Valley Landfill</u> 2016: 28 2017: 30 2018: 31 (Discharge Upper Limit: 800)	<u>Jordan Valley Landfill</u> 2016: 58 2017: 69 2018: 49 (Discharge Upper Limit: 200)
	<u>Ma Yau Tong Central Landfill</u> 350	<u>Ma Yau Tong Central Landfill</u> 2016: 1 2017: 3 2018: Not applicable (Discharge Upper Limit: 800)	<u>Ma Yau Tong Central Landfill</u> (See Note 6) (Discharge Upper Limit: 800)	<u>Ma Yau Tong Central Landfill</u> 2016: 88 2017: 91 2018: Not applicable (Discharge Upper Limit: 200)
Shuen Wan Landfill (See Note 7)	Not Applicable	Not Applicable	Not Applicable	Not Applicable
West New Territories Landfill	3 000 (See Note 8)	2016: 7 2017: 10 2018: 11 (Discharge Upper Limit: 800)	2016: 26 2017: 97 2018: 35 (Discharge Upper Limit: 800)	2016: 143 2017: 137 2018: 106 (Discharge Upper Limit: 200)
North East New Territories Landfill	2 800	2016: 12 2017: 20 2018: 25 (Discharge Upper Limit: 400)	2016: 36 2017: 53 2018: 57 (Discharge Upper Limit: 400)	2016: 99 2017: 103 2018: 113 (Discharge Upper Limit: 150)
South East New Territories	2 000	2016: 17 2017: 21	2016: 67 2017: 78	2016: 114 2017: 95

Name	Maximum Discharge Limit in the WPCO Licence (m ³ /day)	Annual Average of Discharge Quality as shown in the Facilities' Monitoring Data (Year 2016, 2017, 2018)		
		Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L)
Landfill		2018: 11 (Discharge Upper Limit: 800)	2018: 58 (Discharge Upper Limit: 800)	2018: 90 (Discharge Upper Limit: 200)

Notes:

(4) Leachate from these landfills is collected and delivered to one of the leachate treatment plants for collective treatment.

(5) Leachate from these landfills is collected and delivered to one of the leachate treatment plants for collective treatment, while the leachate treatment plant at the Ma Yau Tong Central Landfill will only be operated in wet season when necessary and there was no need for operation in 2018.

(6) Discharge upper limits and the water quality monitoring requirements are formulated based on the design of the sewage treatment facilities and their environmental impacts to the relevant receiving waters.

(7) Leachate from the Shuen Wan Landfill is collected and delivered to the adjacent Tai Po Sewage Treatment Works for treatment.

(8) The maximum discharge limit in the WPCO Licence of the West New Territories Landfill has been updated from 2 000 m³ per day to 3 000 m³ per day since 29 November 2017.

(3) Sewage Treatment Facilities of Power Stations

Name	Operator	Maximum Discharge Limit in the WPCO Licence (m ³ /day)	Annual Average of Discharge Quality as shown in the Facilities' Monitoring Data (Year 2016, 2017, 2018)		
			Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L) (See Note 9)
Castle Peak Power Station	Castle Peak Power Company Limited	2 000	2016: <5 2017: 5 2018: 5 (Discharge Upper Limit: 20)	2016: 6 2017: 7 2018: 8 (Discharge Upper Limit: 30)	Not Applicable
Black Point Power Station	Castle Peak Power Company Limited	420	2016: <5 2017: 5 2018: <5 (Discharge Upper Limit: 20)	Not Applicable	Not Applicable
Lamma Power Station	HK Electric	664	2016: <2 2017: <2 2018: <2 (See Note 10) (Discharge Upper Limit: 20)	2016: 12 2017: 13 2018: 13 (See Note 10) (Discharge Upper Limit: 30)	Not Applicable
Penny's Bay Power Station (Standby)	Castle Peak Power Company	4 181	(See Note 11) (Discharge Upper Limit:	(See Note 11) (Discharge Upper Limit:	Not Applicable

Name	Operator	Maximum Discharge Limit in the WPCO Licence (m ³ /day)	Annual Average of Discharge Quality as shown in the Facilities' Monitoring Data (Year 2016, 2017, 2018)		
			Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L) (See Note 9)
facility)	Limited		20)	30)	

Notes:

(9) Discharge upper limits and the water quality monitoring requirements are formulated based on the design of the sewage treatment facilities and their environmental impact to the relevant receiving waters.

(10) Figures as at September 2018.

(11) The Penny's Bay Power Station is a standby facility and there is no discharge recorded from 2016 to 2018.

(d) All the discharge from the major sewage treatment works managed by the DSD, leachate treatment plants of landfills managed by the EPD, and sewage treatment facilities of power stations operated by the private sector should comply with the relevant discharge limits and the corresponding licence requirement stipulated in the licence granted under the Water Pollution Control Ordinance to ensure that the relevant discharge would not cause any adverse impact on the surrounding environment.

At present, there are on-site EPD staff at all landfills to conduct regular environmental monitoring and to monitor the day-to-day operation of the facilities. The DSD also conducts regular water quality monitoring at major sewage treatment works. The Environmental Compliance Division of the EPD conducts inspections to the relevant facilities operated by the public and private sectors at irregular time intervals to check whether the facility is in normal operation and in compliance with the discharge licence issued.

The Water Policy Division of the EPD has set up 76 marine monitoring stations in Hong Kong open waters and conducts monthly sampling at each station for various physical, chemical and biological analyses. According to the EPD's water quality monitoring data, the discharges from the above waste water treatment facilities have not caused any adverse impact on marine ecology and fishery resources. The Agriculture, Fisheries and Conservation Department also did not observe any abnormality in the ecological condition at Marine Parks.

The EPD and the DSD will continue to carry out the above work to ensure that the discharges comply with the licence requirement and will increase sewage treatment facilities timely to protect fishery resources.

- End -

CONTROLLING OFFICER'S REPLY**ENB273****(Question Serial No. 3582)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding handling of refuse on various beaches and at sea, please advise on:

(a) the staff establishment and expenditures involved for collection of refuse by the Environmental Protection Department (EPD) in the past 3 years (2016-17 to 2018-19);

(b) the total amount of refuse collected by the EPD in the past 3 years (2016-17 to 2018-19) (please set out the information by existing zoning and by month).

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 51)Reply:

(a) Various government departments collect and clean up marine refuse (including floating refuse and shoreline refuse washed ashore) at the respective locations that are within their purview. The Marine Department, the Leisure and Cultural Services Department and the Agriculture, Fisheries and Conservation Department have outsourced the cleaning services of marine refuse to cleaning contractors. Therefore the collection of marine refuse does not involve any staff establishment of the Government. As for the Food and Environmental Hygiene Department, apart from outsourcing to cleaning contractors, its routine cleaning services also include collecting and cleaning up of marine refuse. No separate breakdown on the staff establishment and the expenditures involved is available.

(b) In the past 3 years, the total amount of marine refuse collected by the above departments each month is tabulated below:

	Total amount of marine refuse collected (tonnes)		
	2016/17	2017/18	2018/19
April	1 172	1 110	1 121
May	1 302	1 234	1 162
June	1 652	1 405	1 352
July	2 084	1 503	1 390

	Total amount of marine refuse collected (tonnes)		
	2016/17	2017/18	2018/19
August	1 905	1 890	1 418
September	1 491	1 605	2 005
October	1 364	1 314	1 514
November	1 174	1 222	1 216
December	1 066	1 070	1 065
January of the following year	1 065	1 091	1 072
February of the following year	1 017	1 018	Note
March of the following year	1 094	1 108	Note

Note: The figures are under compilation.

As the zoning demarcations adopted by various departments on cleaning up of marine refuse are different, the total amount of marine refuse collected cannot be further broken down by zones.

- End -

CONTROLLING OFFICER'S REPLY

ENB274

(Question Serial No. 3591)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (4) Water (5) Environmental Assessment and Planning

controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the management of marine environment, please advise on:

(a) the manpower arrangement, expenditure, terms of reference and current work of the Inter-departmental Working Group on Marine Environmental Management.

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 60)

Reply:

To enable more effective marine environmental management and to strengthen the co-operation among various government departments, the Government revamped the Inter-departmental Working Group on Clean Shorelines that was only responsible for coordinating efforts on handling marine refuse in the past, and renamed it as Inter-departmental Working Group on Marine Environmental Management (the Working Group) in January last year under the steer of the Environment Bureau, with its terms of reference expanded to cover the coordination of work related to tackling of marine environmental incidents. The Task Force on Marine Refuse and the Task Force on Emergency Response to Marine Environmental Incidents are set up under the Working Group, with members from various departments including the Agriculture, Fisheries and Conservation Department, the Drainage Services Department, the Environmental Protection Department, the Fire Services Department, the Food and Environmental Hygiene Department, the Home Affairs Department, the Hong Kong Observatory, the Leisure and Cultural Services Department and the Marine Department.

The main work areas of the Working Group include tackling marine refuse problem; strengthening the capability and preparedness on emergency response to various marine environmental incidents; reviewing the relevant work plans and monitor their implementation progress on a regular basis; and fostering cross-boundary collaboration with Guangdong authorities on various marine environmental issues. Currently, the Working Group is expanding its cleanup actions for marine refuse; stepping up inspection, monitoring and cleaning up of marine refuse blackspots, including joint efforts to focus on

some coastal sites with special cleaning problems (such as a pebble beach at Pak Kok Tsui on Lamma Island, Shui Hau Beach on Lantau Island, etc.); reviewing and rationalising the contingency plans for marine environmental incidents; and liaising with Guangdong side to jointly consummate the notification mechanism for marine incidents.

The Working Group also interacts with the public through different channels, including organising an engagement session on clean shorelines in September last year, connecting with the public through the Clean Shorelines Liaison Platform (including the “Clean Shorelines” Facebook page, dedicated website, designated hotline and email, etc.) to promote participation of individuals and organisations in shorelines cleanup activities, and consolidate community efforts to jointly tackle the marine refuse problem.

As the Working Group’s work is part of the routine work of the Environment Bureau and relevant government departments, we do not have a breakdown of the expenditure and manpower in this respect.

- End -

CONTROLLING OFFICER'S REPLY

ENB275

(Question Serial No. 4357)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please advise on:

1. the details of the Administration's work in 2018 and the forthcoming year regarding the introduction of a producer responsibility scheme (PRS) on plastic beverage containers, including the details, expenditure involved and manpower arrangements for launching a pilot scheme on the application of reverse vending machine;
2. the latest progress, expenditure involved and manpower arrangements of the feasibility study on a PRS on plastic beverage containers; and
3. the latest progress, expenditure involved and manpower arrangements of the study on banning personal care and cosmetic products containing microplastics.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 51)

Reply:

(1) – (2) The Government commissioned a feasibility study on the introduction of a producer responsibility scheme (PRS) on plastic product containers, targeting those carrying beverages or personal care products, in October 2017. Taking into account the recommendations of the consultant, the Government decided to accord priority to plastic beverage containers, which account for about 60% of overall waste plastic containers disposed of in Hong Kong, and proceed first with the introduction of a PRS for this type of containers. We plan to consult the public on the proposed way forward in 2019. The consultant will continue to conduct the feasibility study on the PRS on plastic personal care product containers and submit a report to the Government.

In parallel, the Environmental Protection Department (EPD) is preparing for the implementation of a pilot scheme on the application of reverse vending machine (RVM), and will assess its performance and effectiveness in collecting waste plastic beverage containers, as well as the operational arrangements for storing and transporting the plastic bottles collected to local recyclers for further processing. Our initial plan is to place a total of 50 to 60 RVMs at different locations in the second half of 2019, primarily at public places or government facilities with higher pedestrian flow. Through the pilot scheme, the

EPD will also assess the appropriate incentive and the level that should be provided having regard to the recommendations put forward by the consultant. The EPD is now undertaking the preparatory work to work out the specific details of the pilot scheme.

The estimated expenditure for the consultancy study in the financial year 2019-20 is about \$2.2 million. The estimated expenditure for the pilot scheme on the application of RVM in the financial year 2019-20 is about \$4 million, which will mainly be used to engage a contractor to carry out the scheme. As these 2 work items are part of the work of the Waste Management Policy Division of the EPD, there is no separate breakdown of the manpower and expenditure involved in such work.

(3) Regarding the control on personal care and cosmetic products containing plastic microbeads, we are conducting a consultancy study to explore suitable strategies for Hong Kong. The consultant has reviewed the latest trend of overseas control practices on personal care and cosmetic products containing microbeads, and has collected and analysed information on the local commercial market of personal care and cosmetic products. The consultant is soliciting stakeholders' views. After consolidation of all the findings of the study and the views collected, the consultant will submit a report to the Government this year with recommendations on the control options applicable to Hong Kong. The consultancy fee for the study is about \$800,000 in 2019-20. The EPD will carry out the relevant study with its existing manpower and a breakdown on the manpower establishment involved is not available.

- End -

CONTROLLING OFFICER'S REPLY**ENB276****(Question Serial No. 4358)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding the problem of disposable plastics (such as tableware, straws and plastic bags):

1. Please advise on the quantities of plastics disposed of at landfills and the quantities of disposable plastics thereof in the past 5 years;
2. Please advise on the details, expenditure involved and manpower arrangement of the work carried out/to be carried out by the Administration on reducing the disposal quantity of disposable plastics in 2018 and the forthcoming year.
3. Please advise on the latest progress, expenditure involved and manpower arrangement of the study on the control of disposable plastic tableware. In addition, will the Administration take forward measures to tackle the problem of excessive packaging of products by producers and manufacturers? If yes, what are the details? If no, what are the reasons?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 52)Reply:

1. According to the reports on "Monitoring of Solid Waste in Hong Kong" compiled by the Environmental Protection Department (EPD), the statistics on the quantities of plastics, plastic dining wares (including polyfoam dining wares) and plastic bags (including plastic garbage bags, plastic shopping bags (PSBs) and plastic bags for other uses) disposed of at landfills between 2014 and 2017 are shown in the table below. The relevant statistics for 2018 are still under compilation. The EPD does not compile breakdown figures on disposable/non-disposable plastics.

Year	Quantity disposed of at landfills (tonnes per day)		
	Plastics (including dining wares and plastic bags)	Plastic dining wares (including polyfoam dining wares)	Plastic bags
2014	2 015	165	665
2015	2 183	179	649

2016	2 132	193	690
2017	2 124	205	793

2. The EPD has been striving to encourage the public and various sectors to reduce the use of disposable plastic tableware through publicity and education efforts, thereby raising public awareness about environmental protection. In the summer of 2018, we organised the “Plastic Free Beach, Tableware First” campaign at public beaches across the territory. A total of 51 restaurants and kiosks participated and used bamboo sticks, paper straws and paper bags in place of disposable plastic tableware to promote the “plastic-free” culture to the public. The EPD and the Environmental Campaign Committee (ECC) have also collaborated with the food and beverage sector to jointly hold the “Plastic-Free Takeaway, Use Reusable Tableware” campaign to encourage members of the public to go “plastic-and-disposable-free” and reduce the use of disposable plastic tableware when they order takeaways by providing suitable incentives. The first phase of the campaign - a two-month pilot programme at 3 major fast food chains in Hong Kong - concluded successfully on 15 January 2019. During the pilot programme, more than 1.2 million sets of disposable tableware were saved. We are working on the next phase of the publicity and education campaign with a view to further promoting the “plastic-and-disposable-free” message to members of the public. The expenditure of the above campaign in reducing the use of disposable plastic tableware is about \$1 million.

To encourage large-scale event organisers to go “plastic-and-disposable-free”, the ECC, with the sponsorship from the Environment and Conservation Fund and assistance from the EPD, launched the “Reusable Tableware Lending Programme for Large-scale Events” by producing 5 500 sets of reusable tableware for lending to organisers of large-scale events for free since mid-December last year. A tableware cleaning and sterilisation service contractor has been engaged to provide the related delivery, collection and cleaning services. As at February 2019, the ECC has provided tableware lending services for 30 large-scale events, bringing a cumulative reduction of some 110 000 pieces of disposable tableware. The expenditure involved is about \$240,000.

In addition, starting from January 2019, the Government has taken the lead in banning plastic straws and polyfoam food containers in premises and canteens mainly serving government staff. Relevant departments, when inviting tenders for new contracts and renewing existing contracts, will also require restaurant operators in suitable government venues to avoid using disposable plastic tableware.

In the coming year, the EPD will provide 2 additional non-directorate staff (including an Environmental Protection Officer and an Environmental Protection Inspector) dedicated to implementing the relevant work on reducing the use of disposable plastic tableware.

Separately, as the disposal of PSBs has been on the rise for 2 consecutive years and the PSB charging scheme has been in operation for some time, the EPD will review the effectiveness of the scheme in reducing the use and disposal of PSBs. We plan to consult the public on the findings of the review and the way forward later this year. The relevant work is part of the routine work of the EPD absorbed by existing

establishment and resources. There is no breakdown of the expenditure and manpower involved.

3. We are commencing a study on the feasibility, scope and mechanism of controlling or banning disposable plastic tableware. The EPD will consider possible control measures for disposable plastic tableware in Hong Kong in the long run, including the scope and means of control or ban, the applicable substitutes as well as the appropriate regulatory mechanism. The study is scheduled for completion in 2020, involving an expenditure of about \$3 million. As mentioned above, the EPD will provide 2 additional non-directorate staff dedicated to implementing the relevant work on reducing the use of disposable plastic tableware, but there is no breakdown of the manpower resources involved for the above study.

The EPD liaises with supermarkets, the retail and courier sectors from time to time, advising the sectors to adopt relevant waste reduction measures, such as avoiding the use of unnecessary packaging materials and using greener materials to replace plastics for packaging. We will continue to encourage different stakeholders to practise simple packaging through publicity, education and other channels. We will continue to adopt a multi-pronged approach to promote the importance of waste reduction at source. In parallel, we are actively preparing for the introduction of the municipal solid waste charging scheme to provide financial incentives to further encourage the public and the commercial and industrial sectors to reduce waste at source.

- End -

CONTROLLING OFFICER'S REPLY

ENB277

(Question Serial No. 4360)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

To combat waste import/export offences,

1. please provide the number of inspections conducted by the Administration, the types of illegal waste involved as well as the expenditure and manpower resources involved in each of the past 3 years; and
2. please advise on the details of the work of the Administration and the expenditure to be involved in the coming year, including whether the Administration will increase the enforcement manpower and enhance the current notification network in order to plug the relevant loopholes in enforcement.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 54)

Reply:

1. The Environmental Protection Department (EPD) inspected 701, 712 and 811 containers in 2016, 2017 and 2018 respectively for regulating import and export of wastes. The identified offence cases mainly involved illegal import of hazardous wastes, such as chemical wastes like waste flat panel displays, waste printed circuit boards and waste batteries. As the relevant enforcement work is part of the routine duties of the EPD, there is no separate figure for the expenditure involved.

2. In the coming year, the EPD will continue to review the enforcement strategies and deploy staff flexibly from time to time in the light of the actual circumstances of the import and export of wastes, and strengthen cooperation with other relevant departments to jointly carry out monitoring and law enforcement work. Besides, we will continue to work closely with different intelligence networks and sources, and reinforce the partnership with competent authorities outside Hong Kong, for intelligence gathering to ensure effective monitoring and enforcement. The relevant enforcement and intelligence work are part of our routine duties, there is no separate figure for the expenditure involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB278

(Question Serial No. 4362)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the issue of promoting the use of electric vehicles (EVs), the relevant questions are as follows:

1. Please provide the number of newly registered EVs each month in the past 5 years.
2. Please provide the expenditures and details of the enhancement of the charging network, and operational and maintenance costs of chargers each year in the past 5 years.
3. Please provide the number of slow, medium and quick chargers currently distributed over 18 districts of Hong Kong.
4. Please provide the numbers of EVs procured by various government departments and the expenditures involved in the past 3 years.
5. What are the numbers of EVs and non-EVs owned by various government departments? What is the model of the EV mostly used?
6. As the number of EVs has been increasing over the years, we have to face the disposal problem of EV batteries eventually. What are the details of the Administration's current efforts in recycling waste batteries?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 56)

Reply:

1. The number of first registered electric vehicles (EVs) each month in the past 5 years is as follows:

Year	Month	No. of first registered EVs in the month
2014	January	12
	February	6
	March	8
	April	5
	May	15
	June	9
	July	21
	August	164
	September	102
	October	168
	November	57
	December	333
2015	January	169
	February	85
	March	180
	April	134
	May	130
	June	147
	July	74
	August	183
	September	239
	October	353
	November	438
	December	505
2016	January	268
	February	167
	March	511
	April	148
	May	88
	June	208
	July	298
	August	291
	September	529
	October	162
	November	167
	December	210

Year	Month	No. of first registered EVs in the month
2017	January	201
	February	601
	March	2 967
	April	2
	May	10
	June	17
	July	4
	August	20
	September	14
	October	10
	November	37
	December	21
2018	January	12
	February	7
	March	22
	April	41
	May	18
	June	42
	July	22
	August	47
	September	74
	October	47
	November	84
	December	81

Note: Government EVs are not included as government vehicles are not required to register.

- On the development of public charging networks as supplementary facilities, the Government not only takes the lead in providing and enhancing its public charging facilities at government car parks, but also supports private establishments to set up and enhance non-governmental public charging networks. Regarding the government public charging networks, the Government took the lead in 2012 in installing 500 public chargers at government public car parks managed by the Transport Department (TD) and government car parks managed by the Government Property Agency (GPA) which are open for public use. To improve the charging efficiency, the Government has progressively upgraded 370 standard chargers at the car parks of the TD and the GPA which are open for public use to medium chargers in the past few years (as compared with standard chargers, medium chargers can reduce the charging time by up to 60%). As at the end of 2018, the Environmental Protection Department (EPD) has installed 519 chargers, among which 364 are medium chargers, at 425 parking spaces (representing 7% of the relevant parking spaces) at the government car parks managed by the TD and the GPA which are open for public use. The details of and expenditure on enhancing public charging facilities at the above car parks in the past 5 years are as follows:

Year	No. of public EV charging facilities enhanced	Expenditure (\$ million)
2014-15	100 medium chargers	1.28
	Installation of electrical installations of quick chargers for taxis at 6 car parks	1.49
	6 medium charging posts at outdoor car parks *	0.55
2015-16	6 medium charging posts at outdoor car parks *	0.23
2016-17	Upgrading 174 standard chargers to medium chargers and installation of 5 medium charging posts at outdoor car parks	2.94
2017-18	Upgrading 96 standard chargers to medium chargers	1.32
2018-19	**	**
Total		7.81

* The expenditure on 6 medium charging posts at outdoor car parks spanned over two financial years

** The EPD completed the work for upgrading the standard chargers provided at the car parks of the TD and the GPA which are open for public use to medium chargers in February 2018. Apart from 61 standard chargers located at the TD car parks which will be demolished and 94 chargers which have both standard and medium charging functions, standard chargers at the car parks of the TD and the GPA that are open for public use have all been upgraded to medium chargers.

The electricity costs and maintenance costs of chargers at government car parks borne by the Government in the past 5 years are as follows:

Year	Electricity costs of chargers (\$)	Maintenance costs of chargers (\$)
2014-15	129,532	--
2015-16	429,241	--
2016-17	885,189	53,834
2017-18	1,034,830	60,662
2018-19 (as of February 2019)	926,234	70,792

3. The numbers of public EV chargers provided at government and private car parks which are open for public use with a breakdown by 18 districts of Hong Kong as at the end of 2018 are as follows:

District	No. of chargers			Sub-total
	Standard	Medium	Quick	
Central & Western	62	110	36	208
Eastern	28	63	52	143
Southern	4	11	27	42
Wan Chai	67	117	35	219

Kowloon City	64	1	15	80
Kwun Tong	214	81	42	337
	No. of chargers			
District	Standard	Medium	Quick	Sub-total
Sham Shui Po	15	42	37	94
Wong Tai Sin	24	46	9	79
Yau Tsim Mong	101	42	50	193
Kwai Tsing	25	9	33	67
Tsuen Wan	17	46	9	72
Sai Kung	24	31	25	80
North	24	25	12	61
Tai Po	28	3	7	38
Sha Tin	77	44	47	168
Yuen Long	46	33	18	97
Tuen Mun	10	10	17	37
Islands	14	110	27	151
Total	844	824	498	2 166
Government car parks*	314	464	4	782
Private car parks	530	360	494	1384

*Including the TD, the GPA, the Leisure and Cultural Services Department, the Electrical and Mechanical Services Department, the Housing Department, the Tourism Commission and the Highways Department

The Government does not have the number of chargers in private car parks which are not open for public use.

- 29 EVs were procured by various government departments in the past 3 years, involving an expenditure of about \$7.3 million.
- As at the end of December 2018, the numbers of EVs and non-EVs owned by various government departments are tabulated below. The EV model mostly owned by the Government was Renault Fluence ZE, totalling 109 vehicles.

Policy bureaux / departments	No. of EVs	No. of non-EVs
Hong Kong Police Force	120	2 414
Water Supplies Department	16	237
Electrical and Mechanical Services Department	13	194
Agriculture, Fisheries and Conservation Department	11	201
Hongkong Post	9	266
Buildings Department	8	29
Customs and Excise Department	7	189
Lands Department	7	160
Drainage Services Department	6	42

Policy bureaux/ departments	No. of EVs	No. of non-EVs
Food and Environmental Hygiene Department	6	721
Fire Services Department	6	660
Transport Department	6	173
Leisure and Cultural Services Department	5	151
Civil Aviation Department	4	11
Housing Department	4	47
Civil Engineering and Development Department	2	39
Administration Wing	2	25
Environmental Protection Department	2	46
Government Logistics Department	2	60
Labour Department	2	25
Social Welfare Department	2	27
Working Family and Student Financial Assistance Agency	2	0
Architectural Services Department	1	8
Commerce and Economic Development Bureau	1	3
Chief Executive's Office	1	7
Correctional Services Department	1	126
Department of Health	1	56
Environment Bureau	1	1
Home Affairs Bureau	1	6
Highways Department	1	37
Immigration Department	1	35
Office of the Communications Authority	1	20
Planning Department	1	11
Other policy bureaux/departments	-	282
Total	253	6 309

6. Waste EV batteries have to be properly handled under the Waste Disposal Ordinance. Most EV manufacturers or agents have currently engaged licensed collectors to collect/handle their waste EV batteries. After proper preliminary treatment, these waste EV batteries are exported to appropriate treatment facilities in Japan, Korea or Belgium for proper handling and/or recycling. Although the age of most EVs in Hong Kong remains low and the number of retired EV batteries remains small at this stage, as EVs will become more popular in future, the EPD is exploring with EV suppliers the issues of proper collection and handling of waste EV batteries so as to enhance environmental protection.

- End -

CONTROLLING OFFICER'S REPLY

ENB279

(Question Serial No. 4372)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding protection of the ozone layer, the relevant questions are as follows:

1. Please provide the numbers of cases of violation of the Ozone Layer Protection Ordinance handled by the Administration, the details of offences by types, the numbers of persons arrested, the numbers of prosecutions, as well as the maximum and minimum penalties and total amounts of fine imposed in the past 5 years.
2. Please advise on the details of the Administration's work to implement the Ozone Layer Protection Ordinance, as well as the expenditure involved.
3. What are the details of and the expenditure involved in the Administration's work to protect the ozone layer in the coming year?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 66)

Reply:

1. and 2. The Ozone Layer Protection Ordinance (OLPO) (Cap. 403) regulates the local production, import and export of ozone depleting substances in order to phase out ozone depleting substances progressively according to the schedule laid down in the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (the Montreal Protocol) and its subsequent amendments. At present, production of ozone depleting substance is banned in Hong Kong. Only hydrochlorofluorocarbons (HCFCs), which have lower ozone depleting potentials, are allowed to be imported and exported under a strict quota and licensing system.

Violations of the OLPO mainly involve the illegal import and export of ozone depleting substances without a licence. The Environmental Protection Department (EPD) enforces the OLPO in collaboration with the Hong Kong Customs and Excise Department (C&ED). If the C&ED officers find any

suspected activity of illegal import and export of ozone depleting substances at import and export control points, they will notify the EPD immediately to send staff to the scene and collect evidence from the companies or individuals involved so as to determine whether the activity constitutes an offence and whether to institute a prosecution. Successful prosecutions initiated by the EPD against illegal import of ozone depleting substances without a licence in the past 5 years (2014-2018) are tabulated below:

Year	Number of successful prosecutions	Range of fines (lowest to highest)	Total amount of fines
2014	0	Not applicable	Not applicable
2015	2*	\$80,000	\$80,000
2016	1	\$80,000	\$80,000
2017	2	\$20,000 - \$60,000	\$80,000
2018	0	Not applicable	Not applicable

* The defendant in one of the cases was sentenced to imprisonment for 1 month without any fines.

The enforcement of the OLPO is absorbed by existing resources and manpower. As the staff concerned are also responsible for other duties, a separate breakdown on manpower expenditure is not available.

3. In 2019-20, the EPD will continue to work closely with the C&ED in enforcing the OLPO to combat illegal import and export of ozone depleting substances. Besides, the EPD will progressively phase out HCFCs in strict accordance with the schedule laid down in the Montreal Protocol and its subsequent amendments. According to the accelerated HCFC phase-out schedule drawn up in the Meeting of the Parties to the Montreal Protocol held in September 2007, Hong Kong has further tightened the annual quota for importing HCFCs for local consumption from 2015 to 2019 to 10% of the baseline level of 1989, and will completely ban the import of HCFCs in 2020. The Parties to the Montreal Protocol will continue to allow 0.5% of the baseline level for servicing from 2020 to 2030.

The enforcement of the OLPO is absorbed by existing resources and manpower. As the staff concerned are also responsible for other duties, a separate breakdown on manpower expenditure is not available.

- End -

CONTROLLING OFFICER'S REPLY

ENB280

(Question Serial No. 4373)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please advise on the following:

1. The percentages of vehicle emissions in the overall air pollutants in Hong Kong in the past 5 years (with a breakdown by vehicle type and by air pollutants emitted).
2. The percentages of vessel emissions in the overall air pollutants in Hong Kong in the past 5 years (with a breakdown by types of ocean-going vessels and by air pollutants emitted).

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 67)

Reply:

The Environmental Protection Department (EPD) compiles the Hong Kong Air Pollutant Emission Inventory every year to analyse the distribution and trends of major pollution sources in Hong Kong. The Hong Kong Air Pollutant Emission Inventories for 2017 and 2018 are still under compilation.

1. The percentages of emissions of major air pollutants from vehicles in Hong Kong's total emissions from 2012 to 2016 are tabulated below.

Year	Vehicle type	Vehicle emissions (tonnes) / Percentage of vehicle emissions in Hong Kong's total emissions (%)											
		Sulphur dioxide		Nitrogen oxides		Respirable suspended particulates		Fine suspended particulates		Volatile organic compounds		Carbon monoxide	
		tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%
2016	Motorcycle	<5	<1%	140	<1%	<5	<1%	<5	<1%	3 070	12%	3 500	6%
	Private car	10	<1%	450	<1%	20	<1%	20	<1%	730	3%	6 590	11%
	Taxi	<5	<1%	3 020	3%	<5	<1%	<5	<1%	170	<1%	11 360	19%
	Light goods vehicle	<5	<1%	2 370	3%	80	2%	70	2%	110	<1%	870	1%
	Medium and heavy goods vehicle	10	<1%	4 750	5%	150	4%	140	4%	190	<1%	1 580	3%
	Private light bus	<5	<1%	140	<1%	<5	<1%	<5	<1%	30	<1%	570	<1%
	Public light bus	<5	<1%	750	<1%	40	<1%	40	1%	280	1%	5 430	9%
	Non-franchised bus	<5	<1%	1 370	2%	40	<1%	40	1%	80	<1%	530	<1%
	Franchised bus	<5	<1%	3 200	4%	70	2%	70	2%	60	<1%	1 090	2%
	Total emissions	40	<1%	16 190	18%	420	10%	380	11%	4 710	18%	31 530	54%
2015	Motorcycle	<5	<1%	140	<1%	10	<1%	<5	<1%	2 990	12%	3 790	7%
	Private car	10	<1%	490	<1%	20	<1%	20	<1%	790	3%	6 990	12%
	Taxi	<5	<1%	3 200	3%	<5	<1%	<5	<1%	180	<1%	10 780	19%
	Light goods vehicle	<5	<1%	2 540	3%	90	2%	80	2%	130	<1%	880	2%
	Medium and heavy goods vehicle	10	<1%	5 700	6%	200	4%	180	5%	250	<1%	1 890	3%
	Private light bus	<5	<1%	150	<1%	10	<1%	10	<1%	30	<1%	520	<1%
	Public light bus	<5	<1%	810	<1%	50	1%	40	1%	270	1%	5 060	9%
	Non-franchised bus	<5	<1%	1 450	2%	40	<1%	40	1%	80	<1%	520	<1%
	Franchised bus	<5	<1%	3 650	4%	70	2%	70	2%	60	<1%	960	2%
	Total emissions	40	<1%	18 120	19%	490	11%	450	12%	4 790	19%	31 390	55%

Year	Vehicle type	Vehicle emissions (tonnes) / Percentage of vehicle emissions in Hong Kong's total emissions (%)											
		Sulphur dioxide		Nitrogen oxides		Respirable suspended particulates		Fine suspended particulates		Volatile organic compounds		Carbon monoxide	
		tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%
2014	Motorcycle	<5	<1%	150	<1%	10	<1%	<5	<1%	2 880	11%	4 120	7%
	Private car	10	<1%	620	<1%	30	<1%	20	<1%	860	3%	6 790	11%
	Taxi	<5	<1%	3 280	3%	0	0%	0	0%	230	<1%	10 140	17%
	Light goods vehicle	<5	<1%	3 190	3%	140	2%	130	3%	170	<1%	1 010	2%
	Medium and heavy goods vehicle	10	<1%	6 550	6%	300	6%	280	7%	310	1%	1 980	3%
	Private light bus	<5	<1%	190	<1%	10	<1%	10	<1%	40	<1%	620	1%
	Public light bus	<5	<1%	950	<1%	80	2%	80	2%	280	1%	5 960	10%
	Non-franchised bus	<5	<1%	1 640	2%	50	<1%	50	1%	90	<1%	560	<1%
	Franchised bus	<5	<1%	4 470	4%	80	1%	80	2%	70	<1%	900	2%
	Total emissions	40	<1%	21 020	19%	700	13%	640	15%	4 940	18%	32 070	54%
2013	Motorcycle	<5	<1%	150	<1%	10	<1%	<5	<1%	2 840	10%	4 510	7%
	Private car	10	<1%	730	<1%	30	<1%	20	<1%	950	3%	7 410	11%
	Taxi	<5	<1%	5 310	5%	0	0%	0	0%	390	1%	16 470	24%
	Light goods vehicle	<5	<1%	3 650	3%	180	3%	160	4%	210	<1%	1 130	2%
	Medium and heavy goods vehicle	10	<1%	7 690	7%	390	7%	360	8%	400	1%	2 220	3%
	Private light bus	<5	<1%	210	<1%	10	<1%	10	<1%	40	<1%	620	<1%
	Public light bus	<5	<1%	1 140	1%	90	2%	80	2%	350	1%	7 680	11%
	Non-franchised bus	<5	<1%	1 750	2%	50	<1%	50	1%	100	<1%	570	<1%
	Franchised bus	<5	<1%	4 930	4%	90	2%	80	2%	80	<1%	900	1%
	Total emissions	50	<1%	25 560	23%	850	15%	780	17%	5 350	19%	41 510	62%

Year	Vehicle type	Vehicle emissions (tonnes) / Percentage of vehicle emissions in Hong Kong's total emissions (%)											
		Sulphur dioxide		Nitrogen oxides		Respirable suspended particulates		Fine suspended particulates		Volatile organic compounds		Carbon monoxide	
		tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%	tonnes	%
2012	Motorcycle	<5	<1%	160	<1%	10	<1%	10	<1%	2 830	10%	5 260	6%
	Private car	10	<1%	850	<1%	30	<1%	30	<1%	1 040	4%	8 290	10%
	Taxi	<5	<1%	8 570	8%	0	0%	0	0%	780	3%	29 120	35%
	Light goods vehicle	<5	<1%	4 020	4%	210	4%	190	4%	240	<1%	1 280	2%
	Medium and heavy goods vehicle	10	<1%	7 070	6%	340	6%	310	7%	370	1%	2 010	2%
	Private light bus	<5	<1%	220	<1%	10	<1%	10	<1%	40	<1%	630	<1%
	Public light bus	<5	<1%	1 500	1%	100	2%	100	2%	540	2%	11 110	13%
	Non-franchised bus	<5	<1%	1 860	2%	50	<1%	50	1%	110	<1%	580	<1%
	Franchised bus	<5	<1%	5 500	5%	100	2%	100	2%	90	<1%	960	1%
	Total emissions	50	<1%	29 750	27%	850	15%	780	17%	6 040	21%	59 230	71%

Notes: - The figures are rounded to the nearest ten.
- There may be slight discrepancies between the sums of emissions by individual vehicle type and the total vehicle emissions shown in the table because of rounding.

2. The percentages of emissions of major air pollutants from ocean-going vessels (OGVs) in Hong Kong's total emissions from 2012 to 2016 are tabulated below.

Year	OGV type	OGV emissions (tonnes) / Percentage of OGV emissions in Hong Kong's total emissions (%)							
		Sulphur dioxide		Nitrogen oxides		Respirable suspended particulates		Fine suspended particulates	
		tonnes	%	tonnes	%	tonnes	%	tonnes	%
2016	Cruise ship	390	2%	1 240	1%	80	2%	80	2%
	Oil tanker	330	2%	460	<1%	40	<1%	40	1%
	Container vessel	6 590	38%	10 120	11%	880	20%	810	24%
	General cargo vessel	160	<1%	240	<1%	20	<1%	20	<1%
	Others	700	4%	1 190	1%	90	2%	80	2%
	All OGVs	8 170	47%	13 250	15%	1 120	26%	1 020	30%
2015	Cruise ship	1 020	5%	1 640	2%	150	3%	140	4%
	Oil tanker	400	2%	370	<1%	40	<1%	40	<1%
	Container vessel	8 440	43%	10 710	12%	1 050	23%	950	26%
	General cargo vessel	230	1%	250	<1%	30	<1%	20	<1%
	Others	1 010	5%	1 680	2%	120	3%	110	3%
	All OGVs	11 100	57%	14 650	16%	1 390	30%	1 260	34%
2014	Cruise ship	1 130	4%	1 840	2%	180	3%	170	4%
	Oil tanker	490	2%	330	<1%	40	<1%	40	<1%
	Container vessel	9 540	30%	11 570	11%	1 160	21%	1 050	25%
	General cargo vessel	220	<1%	230	<1%	30	<1%	20	<1%
	Others	1 190	4%	2 250	2%	140	3%	130	3%
	All OGVs	12 580	40%	16 210	15%	1 550	28%	1 410	33%
2013	Cruise ship	660	2%	1 380	1%	80	1%	70	2%
	Oil tanker	660	2%	470	<1%	60	<1%	50	1%
	Container vessel	9 670	31%	12 050	11%	1 150	20%	1 040	23%
	General cargo vessel	300	<1%	320	<1%	30	<1%	30	<1%
	Others	1 100	4%	1 350	1%	120	2%	110	2%
	All OGVs	12 400	39%	15 570	14%	1 440	25%	1 310	29%
2012	Cruise ship	810	2%	990	<1%	90	1%	80	2%
	Oil tanker	580	2%	350	<1%	50	<1%	40	<1%

Container vessel	10 430	32%	12 850	12%	1 280	22%	1 160	26%
General cargo vessel	310	<1%	290	<1%	30	<1%	30	<1%
Others	800	2%	860	<1%	90	2%	80	2%
All OGVs	12 930	40%	15 340	14%	1 540	26%	1 390	31%

Notes: - The figures are rounded to the nearest ten.
- There may be slight discrepancies between the sums of emissions by individual OGV type and the total OGV emissions shown in the table because of rounding.

- End -

CONTROLLING OFFICER'S REPLY

ENB281

(Question Serial No. 4374)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please advise on the details, expenditure and manpower arrangements of various tasks to further reduce the concentration levels of various air pollutants in the coming year, including the Cleaner Production Partnership Programme launched in collaboration with the Guangdong Province, as well as the details and progress of the implementation of regional air quality improvement measures.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 68)

Reply:

Under Programme "Air" in 2019-20, the Environmental Protection Department (EPD) will continue to implement various air quality improvement measures outlined in *A Clean Air Plan for Hong Kong*, and strengthen co-operation with the Guangdong (GD) authorities with a view to further improving the air quality. Details of the measures are provided at the Annex.

Major policies and measures for improving air quality to be implemented in 2019-20

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
Vehicles			
Proposed new measures			
1. Tightening the emission standards of first registered motorcycles (MCs), light buses (design weight of more than 3.5 tonnes) and buses (design weight of not more than 9 tonnes)	In view of the current adequate supply of Euro IV compliant MC models and the latest projection of supply of Euro VI compliant light bus and bus models, the Government recommends: (i) tightening the emission standards of first registered MCs to Euro IV, in second half of 2020; and (ii) tightening the emission standards of first registered light buses (design weight of more than 3.5 tonnes) and buses (design weight of not more than 9 tonnes) to Euro VI, On-Board Diagnostics (OBD) Phase C, starting from early 2021.	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	The EPD consulted the Advisory Council on the Environment (ACE) and the Panel on Environmental Affairs (EA Panel) of the Legislative Council (LegCo) on 3 December and 19 December 2018 respectively and gained support from the members. We are preparing for the amendment of the Air Pollution Control (Vehicle Design Standards) (Emission) Regulations (Cap. 311J) to implement the above proposals.
2. Trial of retrofitting Euro IV and V double-deck franchised buses with enhanced selective catalytic reduction (SCR) systems	The Government plans to fully subsidise the franchised bus companies to conduct a trial of retrofitting Euro IV and V diesel double-deck buses of the dominant bus models with enhanced SCR systems, so as to establish its technical feasibility and to confirm the emission reduction performance of the enhanced SCR systems from different suppliers under local road conditions and operational conditions. The trial is expected to be completed by 2021.	To retrofit not more than 60 Euro IV and V double-deck franchised buses with enhanced SCR systems, the estimated cost of the trial is about \$38 million. The relevant workload is partly absorbed with the existing resources of the EPD and the Transport Department (TD). The EPD will create 2 additional two-year time-limited posts (until end of March 2021; including 1	A Task Force comprising the EPD, the TD, franchised bus companies and local experts has been set up to draw up technical specifications and detailed arrangements for the trial, and monitor and evaluate the operational performance and emission reduction performance of the buses retrofitted with the enhanced SCR systems. If the trial is successful, the Government will consider fully subsidising the

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
		<p>Environmental Protection Officer and 1 Environmental Protection Inspector) to undertake and follow up on the relevant trial.</p> <p>The TD will also create 2 two-year time-limited posts (until end of March 2021; including 1 Transport Officer II and 1 Motor Vehicle Examiner I) to undertake the relevant work.</p>	<p>franchised bus companies to retrofit Euro IV and V diesel double-deck buses of qualified models (bus models that have passed the trial) with enhanced SCR systems, to reduce their emissions before their retirement.</p>
<p>3. Reviewing the scope of the Pilot Green Transport Fund (PGTF)</p>	<p>To further facilitate the transport sectors to try out green innovative transport technologies and the wider use of those green innovative transport technologies that have been proved to be relatively mature and suitable for adoption locally, the Government will review the PGTF.</p>	<p>The relevant workload is partly absorbed with the existing resources of the EPD. Moreover, 2 additional five-year time-limited posts (until end of March 2024; including 1 Environmental Protection Officer and 1 Senior Environmental Protection Inspector) will be created to undertake and follow up on the relevant recommendations.</p>	<p>The EPD is conducting the review and aims to complete it within 2019. The EPD will consult the trades, stakeholders, Pilot Green Transport Fund Steering Committee, the ACE and the EA Panel of the LegCo on the review outcome and the relevant recommendations.</p>
<p>4. Phasing out Euro IV diesel commercial vehicles (DCVs)</p>	<p>The Government has proposed to launch an incentive-cum-regulatory programme to phase out Euro IV DCVs by the end of 2023.</p> <p>To continuously improve roadside air quality, the EPD plans, by making reference to the existing scheme of phasing out pre-Euro IV DCVs, to adopt an incentive-cum-regulatory approach to progressively phase out</p>	<p>If positive feedback is received in the consultation with the transport trade, we will seek funding from the Finance Committee of the LegCo in a timely manner for the ex-gratia payment scheme and seek manpower resources if necessary.</p>	<p>Having regard to the existing scheme of phasing out pre-Euro IV DCVs, we are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course.</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	<p>about 40 000 Euro IV DCVs by the end of 2023 on a mandatory basis, and grant an ex-gratia payment to owners who scrap and de-register their Euro IV DCVs by the specified deadlines. After the specified deadlines, the licences of relevant DCVs will not be renewed. We are drafting the details of the scheme (such as the ex-gratia payment level, deadlines for phasing out the vehicles, etc.) and will consult the trade in due course. We are striving to report the detailed arrangements to the ACE and the EA Panel of the LegCo in late 2019/early 2020 after working out the implementation details and consulting the trade.</p>		

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
Vehicles			
Prevailing measures			
5. Encouraging the use of environment-friendly (EF) commercial vehicles	<p>Since April 2008, the Government has launched the Tax Incentives Scheme for EF Commercial Vehicles to encourage vehicle owners to choose EF commercial vehicles with exhaust emissions that out-perform the prevailing statutory emission standards.</p> <p>The qualifying standards for EF commercial vehicles are reviewed and updated annually in the light of vehicle technological advancement such that the tax incentive is available only to vehicles of outstanding environmental performance.</p>	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	From the implementation of the Tax Incentives Scheme for EF Commercial Vehicles to the end of February 2019, the number of newly registered EF commercial vehicles was about 59 000 and the amount of first registration tax concession was about \$1.6 billion.
6. Pilot Green Transport Fund (PGTF)	The PGTF was set up in March 2011 for application by the public transport sectors, goods vehicle operators and charitable/ non-profit making organisations to try out green innovative transport technologies.	<p>Funding of \$300 million was approved for setting up the Fund. As at the end of February 2019, the total amount of subsidy approved was about \$139 million.</p> <p>The relevant workload has been partly absorbed with the existing resources of the EPD. Moreover, 4 additional five-year time-limited posts (until end of March 2021; including 1 Senior Environmental Protection Officer, 1 Environmental Protection Officer, 1 Environmental Protection Inspector and 1 Assistant Clerical Officer) have</p>	<p>The PGTF can promote a wider use of green innovative transport technologies which help improve roadside air quality and reduce greenhouse gas emission</p> <p>As at the end of February 2019, the PGTF has approved 139 trials, involving 105 electric commercial vehicles (including 77 light goods vehicles, 21 single-deck buses, 3 light buses, 3 taxis and 1 medium goods vehicle (tractor)) and 89 hybrid commercial vehicles (including 48 light goods vehicles, 28 medium goods vehicles, 11 light buses and 2 single-deck buses), 1 set of solar</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
		been created to undertake the relevant work.	air-conditioning system for a bus, 4 sets of electric inverter air-conditioning system for buses, 3 diesel-electric propulsion systems for ferries and 1 seawater scrubber for a ferry.
7. Trial of electric buses	Funding was approved to fully subsidise the franchised bus companies to procure 36 single-deck electric buses (including 8 supercapacitor buses and 28 battery-electric buses) for conducting a two-year trial on different routes.	Funding of \$180 million was approved in 2012 for conducting the trial. The relevant workload has been partly absorbed with the existing resources of the EPD and the TD. The EPD and the TD have created 3 two-year time-limited posts (until end of March 2014; including 1 Environmental Protection Officer, 1 Senior Environmental Protection Inspector and 1 Motor Vehicle Examiner I) to undertake the relevant work. Afterwards, the TD has further created a four-year time-limited Transport Officer I post (until end of 2020) to cope with the relevant work of the trial.	At present, 26 battery-electric buses and 6 supercapacitor buses have commenced operation. The remaining electric buses are expected to commence operation progressively in 2019.
8. Phasing out pre-Euro IV diesel commercial vehicles (DCVs)	The EPD launched an incentive-cum-regulatory scheme in March 2014 with the aim of progressively phasing out some 82 000 pre-Euro IV DCVs by the end of 2019. Moreover, the EPD has also set a limit on the service life of DCVs newly registered on or after 1 February 2014 at 15 years.	Funding of about \$11.4 billion was approved for implementation of the ex-gratia payment scheme. The relevant workload has been partly absorbed with the existing resources of the EPD and the TD. Moreover, the EPD has created 3 time-limited posts (from 2013-14 to 2019-20), including	As at the end of February 2019, about 67 900 pre-Euro IV DCVs (i.e. about 83% of the eligible vehicles) have been retired under the ex-gratia payment scheme, involving an ex-gratia payment of about \$9.1 billion. The phasing out of pre-Euro IV DCVs contributed to the substantial reduction

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
		<p>1 Senior Environmental Protection Officer, 1 Environmental Protection Officer and 1 Environmental Protection Inspector, to implement the ex-gratia payment scheme. In addition, the TD has created in phases a maximum of 25 time-limited posts (reduced to 18 in 2019-20; including 1 Senior Executive Officer, 1 Executive Officer I, 1 Executive Officer II, 2 Clerical Officers, 8 Assistant Clerical Officers, 1 Motor Vehicle Examiner I, 1 Motor Vehicle Examiners II and 3 Vehicle Testers) in the above years according to the progress of the scheme to handle the applications for the ex-gratia payment scheme.</p>	<p>of respirable suspended particulates (RSP) and nitrogen oxides (NOx) from vehicles.</p>
<p>9. Strengthening the control of emissions from petrol and liquefied petroleum gas (LPG) vehicles</p>	<p>The EPD has been using roadside remote sensing equipment to identify petrol and LPG vehicles emitting excessively since 1 September 2014. For any vehicle found emitting excessively, the EPD will issue an Emission Testing Notice to its owner. The owner is required to rectify the excessive emission problem and send the vehicle to a Designated Vehicle Emission Testing Centre for an emission test with the aid of a chassis dynamometer within 12 working days so as to confirm the rectification of the excessive emission problem. If the</p>	<p>The relevant workload has been partly absorbed with the existing resources of the EPD. In addition, the EPD will create 1 Environmental Protection Inspector post in 2019-20 to enhance its work on the control of emissions.</p>	<p>As at the end of February 2019, the EPD has monitored some 3.08 million vehicle counts and issued about 17 000 Emission Testing Notices requiring the owners to repair and to rectify the excessive emissions of their vehicles. During the above period, the licences of a total of 211 vehicles were cancelled for failing the emission test. Another 899 vehicles were scrapped by their owners voluntarily. The percentage of petrol vehicles emitting excessively has reduced from about 10% to 5%, while the percentage of LPG vehicles emitting excessively has reduced from about 80%</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	owner fails to send the vehicle to the testing centre, or the vehicle fails to pass the emission test, the licence of the vehicle concerned will be cancelled by the TD.		to 20% from 2014 to 2018. The EPD has strengthened the use of roadside remote sensing equipment progressively since 2018, with the maximum number of monitoring points operated each day increased from 3 previously to 5 currently.
10. Setting up franchised bus low emission zones (FBLEZs)	To improve roadside air quality and protect public health, the Government set up FBLEZs at the busy road sections in Causeway Bay, Central and Mong Kok at the end of 2015, allowing only low emission franchised buses (including buses of Euro IV or above, or Euro II and III buses retrofitted with SCR devices and diesel particulate filters) to run in these zones.	This is part of the EPD's routine work on improving air quality. There is no separate breakdown on the expenditure involved.	3 FBLEZs were set up at the end of 2015. Starting from April 2016, all franchised bus companies have confirmed that they have sufficient low emission buses to run in FBLEZs. According to the reports submitted by the franchised bus companies, as of December 2018, the overall compliance rate was about 99.7%. In case of traffic congestion, vehicle breakdowns and traffic accidents, etc., the franchised bus companies may need to deploy non-low emission buses to run in the FBLEZs occasionally in order to maintain normal bus services. However, these exceptional cases will be reduced as the franchised bus companies are acquiring more new buses progressively.
11. Implementing Euro VI emission standards for newly registered vehicles	The Government has tightened in phases by vehicle type the emission standards for newly registered vehicles to Euro VI starting from 1 July 2017, and has tightened the emission standards for newly registered diesel	This is part of the EPD's routine work on improving air quality. There is no separate breakdown on the expenditure involved.	Compared with their Euro V counterparts, Euro VI heavy duty diesel vehicles emit about 80% less NOx and 50% less RSP while Euro VI light duty diesel vehicles emit about 55% less NOx.

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	private cars to California LEV III starting from 1 October 2017.		
Vessels			
Proposed new measures			
12. Pilot scheme on green ferry	The EPD is now discussing the specific contents and implementation details of the pilot scheme on green ferry with relevant departments. Specific implementation plan and timetable are not available for the time being.	The EPD is using the existing manpower and resources to handle the preparatory work of the pilot scheme, and will apply for the required resources, if necessary, after the implementation plan is confirmed.	We will consult the industry and the relevant committees of the LegCo after working out the implementation plan of the pilot scheme.
Prevailing measures			
13. Controlling the sulphur content of locally supplied marine light diesel	The sulphur content of locally supplied marine light diesel has been capped at 0.05% since 1 April 2014.	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	The sulphur dioxide (SO ₂) and RSP emissions from local vessels were reduced through implementing this measure.
14. Requiring vessels to use compliant fuel	Vessels are required to use compliant fuel (including low-sulphur fuel with sulphur content not exceeding 0.5%) within Hong Kong waters starting from 1 January 2019 to dovetail with the control of the marine emission control areas in Mainland waters.	The relevant work is undertaken by the existing manpower and resources of the EPD. There is no separate breakdown on the expenditure involved.	As at the end of February 2019, the EPD has conducted surprise inspections to 32 ocean-going vessels (OGVs). The results showed that all OGVs complied with the regulation and had switched to use low-sulphur marine fuel before entering Hong Kong waters.
Other emission sources – Prevailing measures			
15. Controlling the emissions from the power sector	The EPD has formulated Technical Memorandums (TMs) in accordance with the Air Pollution Control Ordinance to stipulate the air pollutant emission caps for the power sector.	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	The Seventh TM was issued in November 2017, setting the emission caps for the power sector for 2022 and onwards. Compared with the emission caps under the First TM, the annual total emission caps for SO ₂ , NO _x and RSP set

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	<p>Since 2010, the EPD has successively promulgated 7 TMs to progressively tighten the emission caps of SO₂, NO_x and RSP for the power sector.</p>		<p>out in the Seventh TM reduced the emissions by 79%, 59% and 61% respectively.</p> <p>The Government approved the new five-year development plans of the two power companies in July 2018. Each of the two power companies has planned to construct a new gas-fired generating unit of its own, which will be commissioned in 2022 and 2023 respectively. After the commissioning of all new gas-fired generating units, the percentage of local gas-fired electricity generation will be further increased to about 55%.</p> <p>We have started the review of the Seventh TM to further tighten the emission caps for power plants.</p>
<p>16. Controlling the emissions from non-road mobile machinery (NRMMs)</p>	<p>Starting from 1 June 2015, NRMMs (including regulated machines and non-road vehicles) newly sold and leased for use in Hong Kong have to comply with the statutory emission standards. NRMMs that were in use in Hong Kong when the legislation came into effect were exempted from the new requirements.</p>	<p>This is part of the EPD's routine work on improving the air quality and is absorbed with the existing resources. There is no separate breakdown on the expenditure involved.</p>	<p>Starting from 1 December 2015, all NRMMs used in construction sites, airport, container terminals and other specified locations are required to bear approval or exemption labels issued by the EPD. As at the end of January 2019, labels were issued to a total of some 50 500 NRMMs.</p> <p>Currently, the statutory emission standards for regulated machines and non-road vehicles are EU Stage IIIA and Euro VI standards (or its equivalent</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
			standards) respectively. The Government has tightened the statutory emission standards for some non-road vehicles to Euro VI in phases starting from 1 January 2019 to tie in with the latest emission standards for newly registered road vehicles.
17. Regulating the Volatile Organic Compounds (VOC) content limits of certain products	The EPD has regulated the VOC contents of certain products through legislation since 1 April 2007. The legislation was amended in 2009, 2017 and 2018. At present, there are 172 types of regulated products, including architectural paints, printing inks, vehicle refinishing paints, vessel and pleasure craft paints, adhesives, sealants, fountain solutions, printing machine cleaning agents and 6 broad categories of selected consumer products.	This is part of the EPD's routine work on improving the air quality and is absorbed with the existing resources. There is no separate breakdown on the expenditure involved.	We will continue to explore other feasible measures such as reviewing the feasibility of tightening the VOC content limits of regulated architectural paints and imposing VOC content limits on consumer products which are not regulated, and will also collect views from relevant trades and stakeholders in this regard.

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
Regional Collaboration			
Proposed new measures			
18. Collaboration on post-2020 regional air pollutant emission reduction	To further improve regional air quality, the HKSAR Government and Guangdong Provincial Government are working together to formulate a regional air pollutant emission reduction plan beyond 2020.	The study is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	Hong Kong (HK) and Guangdong (GD) have established a joint science team and launched a study on post-2020 regional air pollutant emission reduction targets and concentration levels, with a view to formulating a regional emission reduction plan beyond 2020.
19. Regional three-dimensional (3-D) air pollution monitoring network	HK and GD have their own plans in establishing 3-D air pollution monitoring networks, using light detection and ranging (LiDAR) technology to monitor the formation and transportation of pollutants at heights. The two sides are exchanging preliminary views on whether a regional monitoring network can be established on this foundation.	The EPD is applying for an additional provision of \$ 55million to purchase the LiDAR system.	The EPD is applying for an additional provision.
Prevailing measures			
20. Pearl River Delta (PRD) Regional Air Quality Management Plan (RAQMP)	HK and GD have implemented a host of emission reduction measures targeting at key emission sources, including power plants, vehicles and industrial facilities, etc., as well as regional air quality monitoring.	The RAQMP is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	The RAQMP has been an ongoing collaboration initiative drawn up since December 2003. The annual average levels of SO ₂ , NO ₂ and RSP measured by the PRD Regional Air Quality Monitoring Network (the Network) in 2017 recorded a decrease by 77%, 26% and 34% respectively as compared with 2006. This indicates an improvement in regional air quality brought about by the emission reduction measures

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
			<p>implemented by GD and HK in recent years.</p> <p>The Network was enhanced by GD, HK and Macao in September 2014 to provide real-time air quality information of the PRD Region.</p>
21. Cleaner Production Partnership Programme	<p>Launched in April 2008, the Cleaner Production Partnership Programme (the Programme) encourages and facilitates Hong Kong-owned factories in GD and HK to adopt cleaner production technologies and practices through funding support and technology promotion activities, thereby contributing to improving the regional air quality. The Programme has been extended until 31 March 2020.</p>	<p>The Government's expenditure for implementing the Programme from 2008-09 to 2018-19 was around \$280 million.</p> <p>This is part of the EPD's routine work. There is no separate breakdown on the manpower and expenditure involved in this Programme.</p>	<p>As at the end of February 2019, over 3 100 funding projects were approved and more than 540 awareness and technology promotion activities were organised under the Programme, attracting over 48 000 participants.</p>
22. Routine monitoring of VOC in the PRD Regional Air Quality Monitoring Network	<p>To step up the control of ozone in the PRD region, GD and HK have adopted a progressive approach to include routine monitoring of VOC in the PRD Regional Air Quality Monitoring Network in 3 phases from 2017 to 2020.</p>	<p>The costs involved for outsourcing the monitoring work at the monitoring station in HK in the past 3 years were about \$3.2 million.</p>	<p>HK and GD have completed the work in Phase 1 in 2017, including considering the coverage and locations of stations for routine VOC monitoring, selecting the parameters to be monitored and monitoring methods, and compiling the standard operating procedures and quality assurance/quality control protocol. Both sides are now undertaking the work in Phase 2, i.e. each selecting one of its stations in the regional network to carry out a pilot of online VOC monitoring and preliminary</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
			<p>data analysis in 2018-19 based on the coverage of monitoring stations and the quality assurance/quality control protocol confirmed in Phase 1. For Phase 3 in 2020, both sides will comprehensively review the experiences gained in Phase 2, including the operation of the monitoring equipment, expenditure, data quality and the preliminary analysis results, etc., and by making reference to relevant national standards and guidelines, fine tune the monitoring protocol and consider increasing the number of VOC routine monitoring stations.</p>
23. Regional air quality forecasting	<p>Targeting at the heavily polluted weather in the PRD region, GD and HK will conduct air quality forecasting meetings at the technical level to jointly forecast the development of heavily polluted weather in the region, analyse and identify the causes so as to formulate and adopt appropriate preventive measures in advance.</p>	<p>The study is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.</p>	<p>HK and GD are currently increasing technical exchanges and trainings in air pollution forecasting to enhance forecasting capability.</p>
Review of the Air Quality Objectives			
24. Review of the Air Quality Objectives (AQOs)	<p>The current AQOs came into effect on 1 January 2014. According to Section 7A of the Air Pollution Control Ordinance (Cap. 311), the Secretary for the Environment is required to review the AQOs at least once in every 5 years</p>	<p>We set up an AQOs Review Working Group (Working Group), led by the Under Secretary for the Environment, to conduct the Review. Members of the Working Group include air scientists, business sector</p>	<p>The Review was completed in December 2018. The ENB submitted the review report to the ACE and consulted the EA Panel of the LegCo in March 2019.</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	<p>and submit a review report to the ACE.</p> <p>The Environment Bureau (ENB) embarked on the AQOs Review (the Review) in May 2016, completed the Review in 2018, and subsequently submitted the review report to the ACE and consulted the EA Panel of the LegCo in March 2019. The ENB will conduct a 3-month public consultation on the review findings in due course.</p> <p>After completing the public consultation, we will report the results to the ACE and the EA Panel of the LegCo expeditiously. If the AQOs are to be tightened, we shall submit an amendment bill to the LegCo with a view to implementing the new AQOs as soon as possible.</p>	<p>representatives, professional bodies, green groups and relevant government representatives, etc. All non-government members of the Working Group took part in the Review on a voluntary basis.</p> <p>As for government members, the work is undertaken with the existing manpower and resources and therefore there is no separate breakdown on the expenditure involved.</p> <p>Besides, the EPD commissioned a consultancy study through open tender in November 2016 to assist in the Review. The consultancy contract fee was about \$7 million.</p>	

- End -

CONTROLLING OFFICER'S REPLY

ENB282

(Question Serial No. 4375)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (4) Water

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

1. In 2018, the water quality of 9% and 6% of the sampling points was classified as fair and bad respectively, and the water quality of 2% of the sampling points was even classified as very bad. What were the details of these sampling points?
2. What are the Administration's key measures to improve the water quality of these sampling points in the coming year? Please advise on the estimated expenditure and manpower arrangement to be involved.
3. Please also provide the locations of the sampling points where water quality was classified as fair, bad and very bad in the past 3 years.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 69)

Reply:

1. and 3. The sampling points where river water quality was classified as "Fair", "Bad" or "Very Bad" were mainly situated in areas within the northwestern part of the New Territories which were affected by illegal discharge from livestock farms, expedient connections and villages with no public sewerage available for connection yet. Table 1 to Table 3 set out the locations of the sampling points where river water quality was classified as "Fair" or below in the past 3 years (i.e. 2016, 2017 and 2018).

Table 1 Sampling points with river water quality classified as "Fair" or below in 2016

Area	River Water Quality Index Grading		
	Fair	Bad	Very Bad
Western and Northern New Territories	Downstream of River Indus Downstream of Fairview Park Nullah Downstream of Tin	Upstream of Yuen Long Creek (East) Downstream of Kam Tin River Upstream of Tuen	---

	Shui Wai Nullah Upstream of Yuen Long Creek (West)	Mun River Downstream of Yuen Long Creek	
Sai Kung District	Upstream of Tseng Lan Shue Stream	---	---
Kowloon District	Downstream of Kai Tak River	---	---

Table 2 Sampling points with river water quality classified as “Fair” or below in 2017

Area	River Water Quality Index Grading		
	Fair	Bad	Very Bad
Western and Northern New Territories	Downstream of River Indus Downstream of Fairview Park Nullah Downstream of Tin Shui Wai Nullah Upstream of Yuen Long Creek	Downstream of Kam Tin River Upstream of Tuen Mun River Downstream of Yuen Long Creek	---
Sai Kung District	Upstream of Tseng Lan Shue Stream	---	---

Table 3 Sampling points with river water quality classified as “Fair” or below in 2018

Area	River Water Quality Index Grading		
	Fair	Bad	Very Bad
Western and Northern New Territories	Downstream of River Indus Downstream of Fairview Park Nullah Downstream of Tin Shui Wai Nullah Downstream of River Beas Downstream of Kam Tin River (South) Midstream and downstream of River Ganges	Upstream of Yuen Long Creek Downstream of Kam Tin River (North) Upstream of Tuen Mun River	Downstream of Yuen Long Creek
Sai Kung District	---	Upstream of Tseng Lan Shue Stream	---

2. The Environmental Protection Department (EPD)'s main strategies for improving the river water quality in Hong Kong are to enforce the Water Pollution Control Ordinance, implement the Livestock Waste Control Scheme, and to extend the sewerage network to various villages according to the Sewerage Master Plans so that village houses can be gradually connected to the public sewerage. In the coming year, the EPD will continue to take enforcement actions in accordance with the Water Pollution Control Ordinance and Waste Disposal Ordinance, combat illegal discharge of wastewater and livestock waste as well as expedient connections. The Government will also continue to implement the Sewerage Master Plans progressively to cover most villages that are not yet connected to the sewerage system. With the provision of public sewers, the water quality of these rivers will gradually improve. In addition, the EPD, in collaboration with other relevant departments, will continue to promote the avoidance of pollution in storm drains or rivers through publicity and education, so as to improve river water quality.

Regarding the water quality problem of the Yuen Long Creek, the EPD is collaborating with the Drainage Services Department to step up efforts in tracking down the sources of wastewater in the district and rectifying the misconnections of foul sewers to storm water drains progressively, and will upgrade the treatment capacity and level of the San Wai Sewage Treatment Works and the Yuen Long Sewage Treatment Works, and build a public sewerage system for villages in the northwestern part of the New Territories proactively to reduce the pollution load discharging into the Yuen Long Creek, so as to improve river water quality.

As taking enforcement actions, implementing the sewerage schemes, and conducting publicity and education programmes are part of the routine duties of the EPD, there is no separate breakdown on the expenditure and manpower involved. In recent years, the Government has implemented a series of sewerage projects in the northwestern part of the New Territories and Sai Kung district, including upgrading of sewage treatment works, provision of public sewers, rehabilitation of ageing sewers and addition of dry weather flow interception facilities to improve river water quality. The estimated expenditure involved in these projects in 2019-20 is about \$780 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB283

(Question Serial No. 4376)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (4) Water

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned in the Matters Requiring Special Attention in the forthcoming year that the Administration will continue to co-operate with the Guangdong authorities on cross-boundary water quality management issues and protection of the marine environment. Please advise on the details of the relevant work.

In addition, please advise on the details, expenditure and manpower resources involved in the Administration's work to protect the marine environment within the territory, especially its work to keep the shorelines clean. Please advise on the responsible departments, the number of cleaning operations conducted, the weight of refuse collected every month, as well as the expenditure and manpower arrangements involved.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 70)

Reply:

As part of the work under the Hong Kong-Guangdong Joint Working Group on Sustainable Development and Environmental Protection, the Environmental Protection Department (EPD) and the Department of Ecology and Environment of Guangdong Province (GDDEE) (formerly known as Department of Environmental Protection of Guangdong Province) completed a Pearl River Estuary Regional Water Quality Joint Management Planning Advance Study at the end of 2014. The objective of the study is to assess the pollution load carrying capacity of the Pearl River Estuary by using the Pearl River Delta water quality model. The study would provide a scientific basis for water quality management of the estuary. Following the recommendations of the study, both sides jointly formulated the Pearl River Estuary Water Quality Management Co-operation Plan (Co-operation Plan) at the end of 2016. Hong Kong and Guangdong will continue to work together to take forward measures to reduce pollutant discharge and strengthen communication and exchange of monitoring data on the water quality of the estuary and coastal waters according to the concrete work plans of the Co-operation Plan, so as to achieve the common goal of protecting the water quality of the estuary.

On co-operation with Shenzhen Municipality, the EPD and the Shenzhen Municipal Ecology and Environment Bureau (formerly known as Human Settlements and Environment Commission of Shenzhen Municipality) completed the second review of the Deep Bay (Shenzhen Bay) Water Pollution Control Joint Implementation Programme (the JIP) at the end of 2016. Both sides have reviewed the latest development planning and water quality condition in the Deep Bay catchment area and the progress of various water pollution control measures, and have predicted the future water quality of Deep Bay. The results indicated that there had already been a reduction in the amount of pollutants discharged into Deep Bay and a material improvement in water quality of the bay. Hong Kong and Shenzhen will continue to implement the jointly formulated JIP (2016 revised version) to make continuous improvement to the water quality of Deep Bay.

In addition, Hong Kong and Guangdong set up the Hong Kong-Guangdong Marine Environmental Management Special Panel (Special Panel) in 2016, under the framework of the Hong Kong-Guangdong Joint Working Group on Sustainable Development and Environmental Protection, to enhance exchange and communication on various regional marine environmental matters. These would include, among other things, formulating strategies in tackling Hong Kong-Guangdong marine environmental management issues, setting up a notification and alert system on marine refuse and sharing of experience, etc. The EPD launched a trial of the notification and alert system on marine refuse in May 2017 for issuing timely notification to the relevant government departments and the GDDEE when Hong Kong and Guangdong waters may be potentially affected by massive amounts of marine refuse. Since the start of the trial, the system has been activated for 15 times with notifications issued. Hong Kong and Guangdong will continue to maintain close liaison and strengthen cross-boundary co-operation in the relevant aspects.

As for protection of local marine environment, the work of the EPD includes:

- a) formulating and implementing plans to ensure that Hong Kong's sewerage system can operate safely and effectively, and that adequate sewerage infrastructure is provided to meet present and future development needs of the city;
- b) conducting extensive monitoring on water and sediment quality as well as carrying out special investigations to provide a basis for policy development and preventive planning;
- c) assessing the possible impact of strategic and local developments on water quality and requiring this to be taken into account in development plans, so as to protect the quality of marine and inland waters and to ensure their best uses; and
- d) enforcing the law and proposing revisions to legislative arrangements to prevent water pollution.

Regarding publicity and education, the EPD has been connecting with the public through different channels to promote the message of keeping shorelines clean to the community. These efforts include organising an engagement session in September last year, interacting and communicating with the public through the Clean Shorelines Liaison Platform (including the "Clean Shorelines" Facebook page, dedicated website, designated hotline and email, etc.) to promote participation of individuals and organisations in shoreline cleanup activities, and consolidate community efforts to jointly tackle the marine refuse problem.

The EPD also provides funding support through the Environment and Conservation Fund to community publicity activities and education projects related to clean shorelines, for raising the environmental awareness of members of the public.

The staff establishment and total expenditure of the EPD on its work on protecting local marine and river environment in the past year are as follows:

Year	2018-19
Staff establishment (no. of posts)	442
Total expenditure (\$m)	304.4 (revised estimate)

The above work is mainly undertaken by the Water Policy Division, Environmental Assessment (EA) Division and Environmental Compliance (EC) Division. The EA Division and EC Division are also responsible for work in other aspects of environmental protection.

Regarding keeping shorelines clean within the territory, various departments of the Hong Kong Special Administrative Region Government collect and clean up marine refuse (including floating refuse and shoreline refuse washed ashore) at the respective locations that they are in charge of. The contractor engaged by the Marine Department (MD) provides about 80 vessels of various types to clean up marine refuse in Hong Kong waters on a daily basis, and provides domestic refuse collection service to vessels in anchorages and typhoon shelters at least once per day. The Agriculture, Fisheries and Conservation Department (AFCD) is responsible for the cleanliness of the marine parks and marine reserve. The cleansing frequency ranges from 4 to 6 times per week for marine parks and twice per month for the Cape D'Aguiar Marine Reserve where no recreational activities are allowed. The Leisure and Cultural Services Department (LCSD) is responsible for the regular cleanup of the 41 gazetted beaches under its purview, which is carried out at least twice per day. The Food and Environmental Hygiene Department (FEHD) is responsible for the cleanliness of ungazetted beaches and coastal areas. The cleansing frequency ranges from daily to half yearly (depending on the cleanliness conditions of the sites). Since the MD, LCSD and AFCD outsource the relevant work to cleansing contractors, the collection work does not involve any staff establishment of the Government. As for the FEHD, apart from outsourcing to cleansing contractors, its routine cleaning service also includes collecting and cleaning up marine refuse. No separate breakdown on the staff establishment and expenditure involved is available.

In the past year, the total amount of marine refuse collected by the above departments each month is tabulated below:

2018-19	Total amount of marine refuse collected (tonnes)
April	1 121
May	1 162
June	1 352
July	1 390
August	1 418
September	2 005

2018-19	Total amount of marine refuse collected (tonnes)
October	1 514
November	1 216
December	1 065
January of the following year	1 072
February of the following year	Note
March of the following year	Note

Note: The figures are still being compiled.

- End -

CONTROLLING OFFICER'S REPLY

ENB284

(Question Serial No. 4377)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (6) Nature Conservation

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The provision earmarked for the Nature Conservation Programme in the coming year shows an increase of 116.4% over last year. What are the reasons and details?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 71)

Reply:

The increased estimates under this Programme is mainly earmarked for meeting the cash flow requirements for the Countryside Conservation Funding Scheme, to be launched in the third quarter of 2019, in supporting funding applications from non-governmental organisations for their conservation and revitalisation projects (excluding minor improvement works).

- End -

CONTROLLING OFFICER'S REPLY**ENB285****(Question Serial No. 4378)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

It is mentioned by the Administration that there will be an increase of 148 posts in the coming year. Please advise the reasons for the increase of these posts, job nature of the posts and the breakdown of the expenditure involved.

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 72)Reply:

There will be an increase of 148 posts in the Environmental Protection Department under "Programme (1) Waste" in 2019-20 and the estimated notional annual salary cost at mid-point required is about \$94 million. These new posts are mainly for taking forward various producer responsibility schemes, preparing for the Municipal Solid Waste Charging Scheme, setting up new outreaching teams, enhancing food waste treatment capacity with the use of food waste/sewage sludge anaerobic co-digestion technology and implementing other waste reduction and recycling measures. Details of the post titles and pay scales are as follows:

Post	Pay Scale	Net Increase of Posts
Assistant Director of Environmental Protection	Directorate Pay Scale Point 2	+1
Principal Environmental Protection Officer	Directorate Pay Scale Point 1	+3
Senior Environmental Protection Officer	Master Pay Scale Point 45 - 49	+12
Environmental Protection Officer/ Assistant Environmental Protection Officer	Master Pay Scale Point 27 - 44 (Environmental Protection Officer)	+29
	Master Pay Scale Point 16 - 21 (Assistant Environmental Protection Officer)	

Post	Pay Scale	Net Increase of Posts
Chief Environmental Protection Inspector	Master Pay Scale Point 29 - 33	+2
Senior Environmental Protection Inspector	Master Pay Scale Point 22 - 28	+26
Environmental Protection Inspector	Master Pay Scale Point 8 - 21	+34
Senior Architect	Master Pay Scale Point 45 - 49	+1
Architect/ Assistant Architect	Master Pay Scale Point 32 - 44(Architect)	+1
	Master Pay Scale Point 19 - 27(Assistant Architect)	
Senior Administrative Officer	Master Pay Scale Point 45 - 49	+1
Chief Executive Officer	Master Pay Scale Point 45 - 49	+2
Executive Officer I	Master Pay Scale Point 28 - 33	+2
Executive Officer II	Master Pay Scale Point 15 - 27	+1
Chief Supplies Officer	Master Pay Scale Point 40 - 44	+1
Official Languages Officer II	Master Pay Scale Point 14 - 27	+1
Accounting Officer I	Master Pay Scale Point 28 - 33	+2
Accounting Officer II	Master Pay Scale Point 14 - 27	+1
Clerical Officer	Master Pay Scale Point 16 - 21	+1
Assistant Clerical Officer	Master Pay Scale Point 3 - 15	+8
Clerical Assistant	Master Pay Scale Point 1 - 10	+4
Personal Secretary I	Master Pay Scale Point 16 - 21	+1
Personal Secretary II	Master Pay Scale Point 4 - 15	+5
Motor Driver	Master Pay Scale Point 5 - 8	+8
Supplies Supervisor I	Master Pay Scale Point 16 - 21	+1
Total		+148

- End -

CONTROLLING OFFICER'S REPLY

ENB286

(Question Serial No. 4753)

Head: (44) Environmental Protection Department

Subhead (No. & title): (000) Operational expenses

Programme: (-) Not Specified

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the outsourced service contractors engaged by the Environmental Protection Department, please provide the following information:

	2018-19	Growth rate compared to the previous year
Number of outsourced service contracts		
Number of outsourced workers employed by outsourced service providers		
Types of services provided by outsourced service providers (including but not limited to works and construction, property and facility management, repair and maintenance of machinery and equipment, information management and information system, environmental hygiene, security, etc.)		
Average monthly salary of outsourced workers \$30,001 or above \$15,001 - \$30,000 \$10,001 - \$15,000 \$8,001 - \$10,000 \$6,760 - \$8,000 Below \$6,760		
Average length of service of outsourced workers in years		
Percentage of outsourced workers in the total number of staff in the Department		

Number of outsourced workers working: 5 days per week 6 days per week		
Number of working hours of outsourced workers per week Maximum number of working hours per week Average number of working hours per week		
Number of workers whose accrued benefits derived from the employer's contributions to the Mandatory Provident Fund are used to offset their severance payment, long service payment or end-of-contract gratuity/the amount involved		

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 348)

Reply:

The details of the outsourced service contracts of the Environmental Protection Department (EPD) in 2018-19 are as follows:

	2018-19	Growth rate as compared with the previous year
Number of outsourced service contracts awarded	23	15%
Number of outsourced workers employed by outsourced service providers	For most of the outsourced service contracts, the EPD only specifies the types and level of services to be delivered by the outsourced service providers, as well as the requirements of major staff, rather than the total number of staff to be employed for the services.	
Types of services provided by outsourced service providers (including but not limited to works and construction, property and facility management, repair and maintenance of machinery and equipment, information management and information system, environmental hygiene, security, etc.)	Mainly include services such as cleansing, assisting in the implementation of environmental programmes, management and operation of air quality monitoring stations, sampling and laboratory testing.	
Average monthly salary of outsourced workers \$30,001 or above \$15,001 to \$30,000 \$10,001 to \$15,000 \$ 8,001 to \$10,000 \$ 6,760 to \$ 8,000 Below \$6,760	The contracts of the EPD entered into with the outsourced service providers specify the service level and fee to be charged by the latter in providing the services. The EPD normally does not specify the number and salaries of the	

Average length of service of outsourced workers in years	outsourced workers (except the minimum wage of non-skilled workers). As long as the procurement requirements (in terms of types and level of services) are satisfied, the outsourced service providers may arrange any of their employees to provide the service during the contract period. The information requested is not available as we do not have the employment information of the outsourced service providers and their workers.
Percentage of outsourced workers in the total number of staff in the Department	
Number of outsourced workers working: 5 days a week 6 days a week	
Number of working hours of outsourced workers per week: Maximum number of working hours per week Average number of working hours per week	
Number of workers whose accrued benefits derived from the employer's contributions to the Mandatory Provident Fund are used to offset their severance payment, long service payment or end-of-contract gratuity/the amount involved	

- End -

CONTROLLING OFFICER'S REPLY**ENB287****(Question Serial No. 4760)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

One of the functions of the Environmental Protection Department (EPD) is to take actions to conduct regular inspections in the rural areas of the New Territories and on various black spots so as to detect illegal or unauthorised disposal of construction waste or land filling. In this connection, would the Administration advise this Committee on the following:

1. The numbers of inspections conducted by the EPD on illegal disposal of construction waste in the New Territories (excluding Lantau), as well as the numbers of cases of successful prosecution in the past 5 years:

Year	Number of inspections conducted during office hours on weekdays	Number of inspections conducted during non-office hours on weekdays	Number of inspections conducted during weekends and holidays	Number of cases of successful prosecution
2015				
2016				
2017				
2018				
January-March 2019				

2. What were the staff establishment and expenditure involved for the inspections conducted by the EPD on illegal disposal of construction waste in the New Territories (excluding Lantau) in the past 5 years?

3. How will the Administration formulate improvement measures and staff establishment in response to the findings of the direct investigation conducted by The Ombudsman in January this year?

Reply:

1. The numbers of inspections conducted by the Environmental Protection Department (EPD) on illegal disposal of construction waste in the New Territories (excluding Islands District and Lantau), as well as the numbers of cases of successful prosecution in the past 5 years are as follows:

Year*	Number of inspections conducted during office hours on weekdays	Number of inspections conducted during non-office hours on weekdays	Number of inspections conducted during weekends and holidays	Number of cases of successful prosecution
2014	4 118 **			25
2015	4 293 **			31
2016	4 206 **			73
2017	2 443	518	120	60
2018	2 562	502	171	59

Notes:

* As the data from January to March 2019 are still being compiled, the relevant figures are not available for the time being.

** Breakdowns of the inspection numbers are available from 2017 onwards. Therefore, annual total figures are provided for the numbers of inspections from 2014 to 2016.

2. As the inspections conducted on illegal disposal of construction waste are part of the routine duties of the EPD, we do not have separate figures for the manpower and expenditure involved.

3. Regarding the recommendations in the investigation report of the Office of The Ombudsman in January 2018, the EPD has followed up on the implementation of the relevant measures, including flexible deployment of manpower resources to increase inspections at illegal construction waste disposal black spots during and outside office hours and on holidays according to specific needs, and continuation of holding regular liaison meetings with the relevant departments with a view to strengthening communication and coordination of efforts in combating illegal disposal of construction waste.

- End -

CONTROLLING OFFICER'S REPLY**ENB288****(Question Serial No. 4761)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

One of the functions of the Environmental Protection Department (EPD) is to take actions to conduct regular inspections in the rural areas of the New Territories and on various black spots so as to detect illegal or unauthorised disposal of construction waste or land filling. In this connection, would the Administration advise this Committee on the following:

1. The numbers of inspections conducted by the EPD on illegal disposal of construction waste in Lantau, as well as the numbers of cases of successful prosecution in the past 5 years:

Year	Number of inspections conducted during office hours on weekdays	Number of inspections conducted during non-office hours on weekdays	Number of inspections conducted during weekends and holidays	Number of cases of successful prosecution
2015				
2016				
2017				
2018				
January-March 2019				

2. What were the staff establishment and expenditure involved for the inspections conducted by the EPD on illegal disposal of construction waste in Lantau in the past 5 years?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 356)

Reply:

1. The numbers of inspections conducted by the Environmental Protection Department (EPD) on illegal disposal of construction waste in Islands District (including Lantau), as well as the numbers of cases of successful prosecution in the past 5 years are as follows:

Year*	Number of inspections conducted during office hours on weekdays	Number of inspections conducted during non-office hours on weekdays	Number of inspections conducted during weekends and holidays	Number of cases of successful prosecution
2014	175 **			0
2015	318 **			0
2016	374 **			0
2017	250	2	15	0
2018	229	11	8	1

Notes:

- * As the data from January to March 2019 are still being compiled, the relevant figures are not available for the time being.
- ** Breakdowns of the inspection numbers are available from 2017 onwards. Therefore, annual total figures are provided for the numbers of inspections from 2014 to 2016.

2. As the inspections conducted on illegal disposal of construction waste are part of the routine duties of the EPD, we do not have separate figures for the manpower and expenditure involved.

- End -

CONTROLLING OFFICER'S REPLY

ENB289

(Question Serial No. 5274)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding air pollution, would the Government advise this Committee on the following:

1. Please list the indexes of distribution of health risk categories recorded at different air quality monitoring stations each month in the past 3 years;
2. Will the Government implement any improvement measures for districts with poorer results in the Air Quality Health Index (such as Tuen Mun, Tung Chung, Yuen Long and Tsuen Wan)? If yes, what is the plan? If not, what are the reasons?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 271)

Reply:

1. The Government launched the Air Quality Health Index (AQHI) on 30 December 2013. On the whole, the total numbers of days (in percentage) with the health risk category of "High" or above level recorded at the general air quality monitoring stations (AQMSs) and roadside AQMSs in 2018 were 8.2% and 10.4% respectively, which were lower than the 14.1% and 26.2% recorded in 2014. The monthly distribution of the number of days with the daily highest health risk category recorded at various AQMSs from 2016 to 2018 is tabulated at the Annex.
2. When there is a relatively high air pollution level in the Pearl River Delta (PRD) region and Hong Kong is subject to light northwesterly winds, Tuen Mun, Tung Chung, Yuen Long and Tsuen Wan, which are situated in the west of Hong Kong, were more susceptible to the regional pollution impact (such as ozone and suspended particulates) and hence resulting in higher air pollution. For the rest of the times, the air qualities in these districts were generally comparable to that in other districts. In fact, the number of hours with the health risk category of "Low" level recorded at Tung Chung AQMS in the past 3 years is more than that recorded at all other general AQMSs.

Ozone is a complicated regional air pollution problem. Ozone is not emitted directly from pollution sources, but is formed by chemical reactions amongst various air pollutants in the ambient air. Ozone is mainly formed by photochemical reactions of

nitrogen oxides (NO_x) (including nitric oxide and nitrogen dioxide) and volatile organic compounds (VOC) under sunlight, which in turn promotes the formation of suspended particulates. When it is sunny and the wind is weak in the PRD region, the regional ozone concentration will increase. If the prevailing winds are northwesterly, they will bring the ozone formed in the PRD region to the west of Hong Kong, and then to other districts.

To improve regional air quality, including solving the ozone pollution problem, the Hong Kong Special Administrative Region (HKSAR) Government and Guangdong (GD) Provincial Government have been striving to reduce emissions from major sources, including power plants, vehicles and industries, etc., in the PRD region since 2002. In 2012, the HKSAR and GD governments endorsed a set of 2015 emission reduction targets and 2020 emission reduction ranges of 4 major air pollutants (i.e. sulphur dioxide (SO₂), NO_x, respirable suspended particulates (RSP) and VOC) for Hong Kong and the PRD Economic Zone, adopting 2010 as the base year.

Both Hong Kong (HK) and GD jointly released the results of the mid-term review on air pollutant emission reduction targets in the PRD region in December 2017, confirming that both sides had achieved their respective 2015 emission reduction targets and finalised the reduction targets for 2020. The details are as follows:

Pollutant	Region ^{Note1}	2015 Emission ^{Note2} reduction target	Actual emission ^{Note2} reduction in 2015 (according to the 2015 Emission Inventory Report)	2020 Emission ^{Note2} reduction target
SO ₂	Hong Kong (HK)	-25%	-45%	-55%
	PRD Economic Zone	-16%	-25%	-28%
NO _x	HK	-10%	-14%	-20%
	PRD Economic Zone	-18%	-22%	-25%
RSP	HK	-10%	-20%	-25%
	PRD Economic Zone	-10%	-14%	-17%
VOC	HK	-5%	-14%	-15%
	PRD Economic Zone	-10%	-11%	-20%

Note 1: The PRD Economic Zone includes Guangzhou, Shenzhen, Zhuhai, Dongguan, Zhongshan, Foshan, Jiangmen, Huizhou and Zhaoqing

Note 2: Reductions are relative to 2010 emission levels.

The HKSAR Government and GD Provincial Government are continuing to implement the control measures under the Pearl River Delta Regional Air Quality Management Plan to meet the above emission reduction targets for 2020. The key emission reduction measures implemented by HK include: requiring power plants to increase the use of natural gas in electricity generation; progressively tightening emission caps for power plants; tightening vehicle emission standards for newly registered vehicles to Euro VI; continuing to phase out pre-Euro IV diesel commercial vehicles; and collaborating with the GD Provincial Government on the implementation of ambient pollution control on vessels, etc.

The key emission reduction measures implemented by GD include: various enhancement measures on air pollution prevention and control such as controlling the pollutant emissions of coal-fired thermal power plants; advancing the implementation of National VI emission standards for motor vehicles in the PRD; promoting the use of electric buses and other new energy vehicles; introducing remedial measures to tackle pollution caused by diesel goods vehicles; upgrading the emission control standards for vessels; promoting pollution prevention and control for non-road mobile machinery; enhancing VOC pollution prevention and control; enhancing management of construction sites and transportation dust as well as total prohibition of open burning, etc.

Apart from these, to further improve the regional air quality, HK and GD have launched a study on post-2020 regional air pollutant emission reduction targets and concentration levels for HK and GD, in which emission reduction plan beyond 2020 will be formulated.

Table 1: The monthly distribution of health risk categories recorded at various AQMSs in 2016

		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O ^{Note 1}	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun ^{Note 2}
Health Risk Category		Number of days															
Jan 2016	Low	1	5	4	10	11	7	8	9	9	-	13	10	14	13	13	-
	Moderate	28	25	26	21	20	24	23	21	21	-	18	18	14	18	18	-
	High	1	1	1	0	0	0	0	1	1	-	0	3	3	0	0	-
	Very High	1	0	0	0	0	0	0	0	0	-	0	0	0	0	0	-
	Serious	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	-
Feb 2016	Low	1	1	5	9	11	7	11	9	10	-	10	11	11	14	12	0
	Moderate	23	27	20	20	18	20	18	20	19	-	18	17	18	15	17	4
	High	3	1	4	0	0	2	0	0	0	-	1	1	0	0	0	0
	Very High	2	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0
Mar 2016	Low	0	2	3	7	5	8	7	7	7	5	13	8	9	13	11	11
	Moderate	27	28	25	23	25	20	22	20	23	11	17	18	20	17	19	18
	High	2	0	3	0	1	3	2	3	1	0	0	4	1	0	1	2
	Very High	2	1	0	1	0	0	0	1	0	0	1	1	0	1	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Apr 2016	Low	2	5	5	11	7	6	9	5	5	12	19	9	14	15	15	14
	Moderate	25	24	24	18	21	23	20	23	24	17	10	19	15	14	14	15
	High	3	1	1	1	2	1	1	2	1	1	0	1	0	1	1	1
	Very High	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May 2016	Low	2	8	8	14	10	9	13	13	14	14	18	15	15	15	15	12
	Moderate	27	21	20	15	19	19	16	16	15	15	10	12	11	14	15	17
	High	0	1	1	2	1	2	1	1	1	2	2	1	2	2	1	2
	Very High	2	1	2	0	1	1	1	1	1	0	1	3	3	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun 2016	Low	6	19	21	28	19	14	28	22	25	28	26	28	29	28	28	27
	Moderate	24	11	9	2	11	16	2	8	5	2	4	2	1	2	2	3
	High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Very High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O ^{Note 1}	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun ^{Note 2}
	Health Risk Category	Number of days															
Jul 2016	Low	11	16	17	22	20	15	20	18	20	22	22	22	21	21	22	22
	Moderate	17	13	12	7	9	14	9	11	8	7	3	6	6	7	7	6
	High	1	0	0	0	0	0	0	0	1	0	3	1	1	1	0	0
	Very High	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	2
	Serious	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2
Aug 2016	Low	5	7	7	9	10	8	9	8	10	15	10	11	12	14	14	13
	Moderate	22	23	21	20	20	21	20	20	18	15	15	16	15	13	15	16
	High	2	0	2	1	0	1	1	2	1	0	1	0	1	2	1	1
	Very High	1	0	1	0	1	1	1	1	2	1	5	4	3	2	1	1
	Serious	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Sep 2016	Low	0	7	7	8	8	2	8	7	8	8	8	8	9	8	10	8
	Moderate	22	18	18	16	18	24	18	18	17	18	12	12	12	18	17	18
	High	1	1	3	1	3	1	3	3	2	2	4	1	3	1	1	3
	Very High	7	4	2	5	1	3	1	2	3	2	5	7	5	3	2	1
	Serious	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0
Oct 2016	Low	4	10	6	12	9	8	8	8	9	12	10	8	14	15	14	10
	Moderate	25	19	24	16	21	21	22	22	21	19	19	20	13	15	16	21
	High	1	1	0	2	0	1	0	0	0	0	0	1	2	0	1	0
	Very High	1	1	1	0	1	1	1	1	1	1	0	2	1	1	0	0
	Serious	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0
Nov 2016	Low	2	5	5	7	7	7	5	7	8	8	4	4	8	8	8	9
	Moderate	28	23	25	23	23	23	25	23	21	22	23	23	19	22	22	20
	High	0	2	0	0	0	0	0	0	1	0	2	1	2	0	0	1
	Very High	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 2016	Low	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	1
	Moderate	25	21	28	26	28	29	30	25	23	30	21	21	22	25	29	26
	High	3	4	1	4	3	2	1	4	3	0	2	2	2	3	1	4
	Very High	3	6	2	1	0	0	0	2	5	0	8	7	7	1	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0

		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O ^{Note 1}	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun ^{Note 2}
Health Risk Category		Number of days															
2016 whole year	Low	34	85	88	137	117	91	126	113	125	125	153	134	156	166	163	127
	Moderate	293	253	252	207	233	254	225	227	215	156	170	184	166	180	191	164
	High	17	12	16	11	10	13	9	16	12	5	15	16	17	10	7	14
	Very High	19	13	9	7	4	6	4	8	12	3	25	26	22	8	3	4
	Serious	3	3	1	4	2	2	2	2	2	2	3	6	5	2	2	1
<p>Note 1: Tseung Kwan O AQMS commenced operation on 16 March 2016.</p> <p>Note 2: The operation of Tap Mun AQMS was temporarily suspended due to rooftop refurbishment works from 30 November 2015 to 25 February 2016. No health risk data was available during this period.</p>																	

Table 2: The monthly distribution of health risk categories recorded at various AQMSs in 2017

		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun
Health Risk Category		Number of days															
Jan 2017	Low	0	1	3	4	3	4	5	5	4	4	4	4	4	5	4	4
	Moderate	26	28	27	26	27	26	26	25	25	27	26	26	26	25	26	26
	High	2	0	1	0	1	1	0	1	1	0	0	0	0	1	0	1
	Very High	3	2	0	1	0	0	0	0	1	0	1	1	1	0	1	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb 2017	Low	0	0	2	3	2	2	3	3	3	2	4	4	5	2	5	4
	Moderate	27	26	25	25	25	26	25	25	25	25	22	21	23	26	23	22
	High	1	2	1	0	1	0	0	0	0	1	2	3	0	0	0	2
	Very High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar 2017	Low	0	0	1	1	0	1	2	2	1	0	2	2	3	1	2	1
	Moderate	28	28	29	29	29	29	27	28	29	29	28	28	27	29	28	28
	High	2	2	0	0	1	0	1	0	0	1	0	0	0	0	0	2
	Very High	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr 2017	Low	1	5	6	5	6	8	9	7	5	7	13	13	10	8	8	9
	Moderate	23	22	22	24	23	20	20	22	24	22	15	14	19	19	21	18
	High	3	3	1	1	1	2	1	1	1	1	0	1	1	2	1	3
	Very High	3	0	1	0	0	0	0	0	0	0	2	2	0	1	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May 2017	Low	0	1	1	2	1	4	4	2	3	4	7	5	3	5	8	6
	Moderate	24	24	24	24	23	22	22	25	23	20	18	19	21	20	18	20
	High	2	2	1	1	3	3	3	0	1	4	2	3	2	2	1	3
	Very High	5	4	4	4	4	2	2	4	3	3	3	2	2	4	4	1
	Serious	0	0	1	0	0	0	0	0	1	0	1	2	3	0	0	1
Jun 2017	Low	3	25	28	30	30	28	30	26	30	30	29	30	30	30	30	29
	Moderate	27	5	2	0	0	2	0	4	0	0	1	0	0	0	0	1
	High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Very High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	Health Risk Category	Roadside AQMS			General AQMS													
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun	
		Number of days																
Jul 2017	Low	15	27	26	27	27	27	27	26	27	27	25	25	27	27	27	27	
	Moderate	13	2	3	2	2	2	2	3	2	2	3	3	1	1	2	2	
	High	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
	Very High	0	1	1	1	1	1	1	1	1	1	0	2	1	1	0	1	2
	Serious	2	1	1	1	1	1	1	1	1	1	2	1	2	1	2	1	0
Aug 2017	Low	3	23	15	24	24	19	24	19	22	23	21	22	24	19	24	22	
	Moderate	23	4	13	4	3	8	4	8	5	3	5	4	2	6	3	6	
	High	2	1	0	0	2	1	1	1	0	1	0	0	0	1	1	2	
	Very High	3	3	3	3	2	3	2	3	4	4	3	4	3	4	3	1	
	Serious	0	0	0	0	0	0	0	0	0	0	2	1	2	1	0	0	
Sep 2017	Low	0	10	8	12	12	13	15	11	14	13	14	12	16	12	13	13	
	Moderate	23	13	15	11	11	10	8	13	10	11	7	9	7	11	11	10	
	High	0	0	0	0	1	1	0	0	0	1	1	0	1	0	0	1	
	Very High	4	5	4	4	5	5	5	3	2	4	5	3	0	6	4	5	
	Serious	3	2	3	3	1	1	2	3	4	1	3	6	6	1	2	1	
Oct 2017	Low	2	3	3	6	5	6	6	6	6	5	6	6	8	5	5	5	
	Moderate	18	21	19	16	18	18	19	17	17	19	14	12	14	17	19	18	
	High	8	5	6	8	7	6	5	3	2	6	3	5	3	3	3	4	
	Very High	3	2	3	1	1	1	1	5	6	1	8	8	6	6	4	4	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Nov 2017	Low	0	3	2	3	2	3	2	3	5	3	5	4	4	3	4	3	
	Moderate	24	24	25	25	26	26	27	25	20	25	19	17	20	22	23	23	
	High	5	2	2	1	1	1	0	1	3	1	2	3	2	4	2	3	
	Very High	1	1	1	1	1	0	1	1	2	1	4	4	4	1	1	1	
	Serious	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	
Dec 2017	Low	0	0	0	2	1	2	2	2	2	2	1	1	2	2	2	2	
	Moderate	16	19	21	21	24	23	22	20	20	24	18	18	18	20	23	22	
	High	7	7	4	7	5	5	6	6	6	3	7	4	7	5	3	3	
	Very High	8	5	6	1	1	1	1	3	3	2	5	8	4	4	3	4	

	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		Roadside AQMS			General AQMS													
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun	
Health Risk Category		Number of days																
2017 whole year	Low	24	98	95	119	113	117	129	112	122	120	131	128	136	119	132	125	
	Moderate	272	216	225	207	211	212	202	215	200	207	176	171	178	196	197	196	
	High	33	24	16	18	23	20	17	13	14	19	17	19	17	19	11	24	
	Very High	31	24	24	17	16	14	14	21	23	16	34	34	22	27	22	18	
	Serious	5	3	5	4	2	2	3	4	6	3	7	13	12	4	3	2	

Table 3: The monthly distribution of health risk categories recorded at various AQMSs in 2018

		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun
Health Risk Category		Number of days															
Jan 2018	Low	1	4	6	8	6	6	9	6	7	7	6	6	9	6	6	8
	Moderate	25	23	22	21	22	23	20	23	20	22	22	21	19	23	23	19
	High	3	2	1	0	2	0	1	0	2	0	0	0	1	0	0	3
	Very High	2	2	1	2	1	2	1	1	1	2	1	2	0	2	2	1
	Serious	0	0	1	0	0	0	0	0	1	1	0	2	2	2	0	0
Feb 2018	Low	1	1	1	1	0	0	5	2	1	3	5	3	5	2	2	0
	Moderate	22	24	27	27	28	28	23	26	27	25	23	24	23	26	26	28
	High	2	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	Very High	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar 2018	Low	0	0	2	1	2	3	3	3	2	2	6	3	6	2	3	3
	Moderate	27	29	27	30	28	28	28	26	29	29	23	27	25	28	27	28
	High	3	2	2	0	1	0	0	2	0	0	1	1	0	1	1	0
	Very High	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr 2018	Low	0	10	6	9	7	8	8	7	9	8	10	7	13	12	7	7
	Moderate	27	20	24	20	21	22	22	22	20	20	19	21	16	17	22	21
	High	3	0	0	1	2	0	0	1	1	2	1	1	0	1	1	2
	Very High	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May 2018	Low	2	14	11	19	17	14	19	17	22	17	15	13	20	22	18	16
	Moderate	27	16	18	11	13	16	11	13	8	13	13	14	8	8	12	14
	High	1	0	1	0	0	0	0	0	0	0	0	2	2	1	0	0
	Very High	1	1	1	1	1	1	1	1	1	1	3	2	1	0	1	1
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun 2018	Low	5	11	14	16	14	14	16	13	14	14	14	14	14	17	14	13
	Moderate	23	17	15	12	14	15	13	16	15	15	15	14	14	13	15	16
	High	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1
	Very High	2	2	1	2	0	0	1	1	1	0	1	2	2	0	1	0

	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun
Health Risk Category		Number of days															
Jul 2018	Low	11	27	22	28	26	25	27	27	27	28	27	27	27	27	27	29
	Moderate	20	4	9	3	5	6	4	4	4	3	3	3	3	3	4	2
	High	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	Very High	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug 2018	Low	5	12	6	21	19	15	17	18	20	19	18	17	19	20	20	19
	Moderate	20	12	17	4	7	12	9	8	5	8	6	7	5	5	6	7
	High	1	2	3	1	2	0	1	0	1	0	0	0	1	2	0	2
	Very High	3	3	3	3	2	3	2	2	2	3	4	4	4	3	4	2
	Serious	2	2	2	2	1	1	2	3	3	1	3	3	2	1	1	1
Sep 2018 ^{Note 1}	Low	4	8	7	10	8	10	11	10	12	8	9	10	11	10	9	4
	Moderate	23	19	20	17	20	18	16	17	16	20	15	13	12	14	17	12
	High	0	0	1	1	0	0	1	1	0	1	2	0	2	3	1	0
	Very High	3	3	2	2	2	2	2	2	2	1	4	7	5	3	3	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct 2018	Low	0	0	1	1	2	1	1	2	1	1	3	2	1	2	3	1
	Moderate	22	19	21	22	20	25	21	21	21	23	17	15	19	19	18	21
	High	5	9	3	2	5	2	5	4	4	4	1	3	3	4	4	6
	Very High	4	3	6	6	4	3	4	4	5	3	10	11	8	6	6	3
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov 2018	Low	0	0	0	2	2	0	2	1	3	1	3	3	6	2	1	2
	Moderate	28	26	26	25	26	28	25	26	23	27	23	22	20	26	26	27
	High	0	2	2	2	2	2	3	3	3	2	2	3	2	1	3	0
	Very High	2	2	2	1	0	0	0	0	1	0	1	1	1	1	0	1
	Serious	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
Dec 2018	Low	2	3	6	9	9	7	12	10	10	12	9	6	11	11	9	12
	Moderate	28	27	24	21	22	24	19	21	20	19	19	22	17	20	22	19
	High	1	0	1	1	0	0	0	0	1	0	2	1	1	0	0	0
	Very High	0	1	0	0	0	0	0	0	0	0	1	2	2	0	0	0

	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun
Health Risk Category		Number of days															
2018 whole year	Low	31	90	82	125	112	103	130	116	128	120	125	111	142	133	119	114
	Moderate	292	236	250	213	226	245	211	223	208	224	198	203	181	202	218	214
	High	19	20	14	8	16	5	11	11	12	10	9	13	13	13	10	14
	Very High	21	17	16	17	10	11	11	11	13	10	27	32	24	16	17	8
	Serious	2	2	3	2	1	1	2	4	4	1	6	6	5	1	1	1

Note 1: The operation of Tap Mun AQMS was temporarily suspended from 16 to 30 September 2018 due to the attack of typhoon Mangkhut.

- End -

CONTROLLING OFFICER'S REPLY

ENB290

(Question Serial No. 6120)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Government indicated earlier that automatic vending machines at government premises would stop selling some of the plastic bottled water progressively, so as to encourage waste reduction at source. In this connection, please reply on the following:

- (1) Regarding the plan to stop the sale of plastic bottled water, what is the current progress? How many automatic vending machines have stopped selling plastic bottled water? How many automatic vending machines are still selling plastic bottled water?
- (2) The percentage of government premises installed with both automatic vending machines and water dispensers; please list the government premises installed with automatic vending machines but not water dispensers;
- (3) Please list the water dispensers newly installed at government premises in the past 3 years, as well as the expenditure involved.

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 91)

Reply:

(1) and (2) Sale of plastic bottled water measuring 1 litre or less has been progressively ceased in automatic vending machines (AVMs) at government premises since 20 February 2018. At present, there are about 1 600 AVMs at government premises. About half of these AVMs put in place the above stop-sale arrangement, and the number is expected to be increased to over 80% by mid-2019. The remaining AVMs will gradually implement the stop-sale arrangement by renewing existing relevant contracts, lease/tenancy agreements or permissions, etc. We do not have statistics on the government premises installed with either AVMs or water dispensers or installed with both of them.

(3) According to the information provided by government bureaux and departments, about 700 water dispensers were newly installed at various government premises in the past 3 years. In general, installation of additional water dispensers at government premises will be arranged by the department which manages the premises. The Environmental Protection Department does not have statistics on the expenditure involved.

To inculcate the “bring your own bottle” culture and reduce the consumption of plastic bottled water, the Chief Executive mentioned in the 2018 Policy Address that the Government would install more water dispensers at government venues with public access. The initial target is to install 500 more water dispensers in 3 years (i.e. by 2021-22).

- End -

CONTROLLING OFFICER'S REPLY

ENB291

(Question Serial No. 6123)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It was mentioned in last year's Estimates that "the food waste collected mainly from selected public markets and cooked food centres will be delivered to the new Organic Waste Treatment Facility for treatment." In this connection, please provide information on the following:

- (1) The expenditure involved and the breakdown of the expenditure;
- (2) The numbers and names of the selected markets and cooked food centres, and the selection criteria;
- (3) It was mentioned in last year's reply that the pilot scheme would be launched in the second half of 2018. What are the details of the scheme at present, including the implementation date, collection details and the estimated amount of food waste to be collected?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 94)

Reply:

To encourage the commercial and industrial (C&I) sectors to recycle food waste properly and achieve the target of turning waste into energy, the Government launched a pilot scheme in July 2018 to collect food waste generated from 40 public markets and cooked food venues managed by the Food and Environmental Hygiene Department (FEHD), as well as 9 shopping centres and wet markets managed by the Hong Kong Housing Authority (HA), for delivery to the Organic Resources Recovery Centre Phase 1 (O • PARK1) for treatment. The markets and cooked food centres covered in the pilot scheme are selected with regard to their proximity to the O • PARK1, accessibility of land transport, the amount of food waste generated, and site availability in support of separation of food waste at source, etc. The lists of the participating venues are at the Annexes.

Under the pilot scheme, the FEHD and the HA have separately arranged contractors to take the initiative to collect food waste generated by operators of public market stalls and cooked food venues, and then the food waste collection contractor of the FEHD delivers

source-separated food waste from the above 49 premises to the O • PARK1 for treatment every day. In addition, to further promote recycling of food waste and enhance the quality of food waste collected, the Environmental Protection Department has arranged a contractor to provide suitable guidance and training for operators of public market stalls, cooked food venues and shopping centres, including advising them on how to practise source separation, collection and delivery of food waste.

Since the launch of the pilot scheme, the quantity of food waste collected was about 200-240 tonnes per month, and the expenditure involved was about \$16 million in the financial year 2018-19.

To further promote recycling of food waste, the Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. The pilot scheme will mainly involve collection of food waste generated by C&I sectors, including extending free food waste collection service to other public markets, cooked food venues and shopping centres under the FEHD and the HA and other facilities (e.g. more wholesale food markets under the Agriculture, Fisheries and Conservation Department and hospitals under the Hospital Authority, etc.).

FEHD public markets and cooked food centres/markets that have been delivering food waste to O • PARK1 since July 2018

District	Name of public market and cooked food centre/market	District	Name of public market and cooked food centre/market
Central/Western	Sheung Wan Market and Cooked Food Centre	Kowloon City	Kowloon City Market and Cooked Food Centre
	Smithfield Market and Cooked Food Centre		To Kwa Wan Market and Cooked Food Centre
	Shek Tong Tsui Market and Cooked Food Centre		Hung Hom Market and Cooked Food Centre
	Sai Ying Pun Market	Mong Kok	Fa Yuen Street Market and Cooked Food Centre
Eastern	Sai Wan Ho Market and Cooked Food Centre	Sham Shui Po	Tai Kok Tsui Market and Cooked Food Centre
	Yue Wan Market and Cooked Food Centre		Po On Road Market and Cooked Food Centre
	Java Road Market and Cooked Food Centre	Wong Tai Sin	Pei Ho Street Market and Cooked Food Centre
	Chai Wan Market and Cooked Food Centre		Tai Shing Street Market and Cooked Food Centre
	Quarry Bay Market and Cooked Food Centre		Ngau Chi Wan Market and Cooked Food Centre
	Electric Road Market and Cooked Food Centre		Choi Hung Road Market and Cooked Food Centre
	Aldrich Bay Market and Cooked Food Centre		Sheung Fung Street Market
Southern	Aberdeen Market and Cooked Food Centre	Yau Tsim	Kwun Chung Market and Cooked Food Centre
	Yue Kwong Road Market and Cooked Food Centre		Yau Ma Tei Market
	Tin Wan Market and Cooked Food Centre		Haiphong Road Temporary Market cum Haiphong Road Temporary Cooked Food Hawker Bazaar
	Ap Lei Chau Market and Cooked Food Centre	Kwai Tsing	North Kwai Chung Market
Wan Chai	Causeway Bay Market	Kwai Tsing	Wing Fong Street Market
	Bowrington Road Market and Cooked Food Centre		Tsing Yi Market
	Lockhart Road Market and Cooked Food Centre	Tsuen Wan	Tsuen Wan Market
	Wong Nai Chung Market and Cooked Food Centre		Yeung Uk Road Market
	Wan Chai Market		Heung Che Street Market and Cooked Food Centre

**HA wet markets and shopping centres that have been delivering food waste
to O • PARK1 since July 2018**

District	Name of shopping centre
Southern	Wah Fu (I) Shopping Centre
	Wah Fu (II) Commercial Complex
Sham Shui Po	Nam Shan Shopping Centre
Kowloon City	Ching Long Shopping Centre
Kwai Tsing	Cheung Ching Commercial Complex
	Kwai Shing West Shopping Centre
	Kwai Chung Shopping Centre
	Lai Yiu Shopping Centre
	Lei Muk Shue Shopping Centre

- End -

CONTROLLING OFFICER'S REPLY**ENB292****(Question Serial No. 6124)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please set out by year in tabular form the following information of the T • PARK in Tuen Mun since its opening in 2015:

- (1) The number of visitors in each year, by group and individual visits;
- (2) The highest, lowest, median and mean numbers of visitors in each year;
- (3) The number of users who made reservations for using the spa pools at the T • PARK, the highest, lowest, median and mean numbers of users with reservations in each year;
- (4) The items and amounts of the operating expenditure of the T • PARK, and the manpower involved (posts and number of staff) in each year, and the estimated expenditure for 2019-2020.

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 95)Reply:

(1), (2) and (3):

The Environmental Education Centre of the T • PARK has been opened to the public since 29 June 2016. The numbers of visitors to the T • PARK and the spa pools are set out below:

Year	July to December 2016	2017	2018
Number of visitors each year	Individual: 28 419 Group: 13 326	Individual: 55 168 Group: 24 617	Individual: 54 834 Group: 24 351
Number of visitors each month	Highest: 8 074 Lowest: 5 131 Median: 7 300 Mean: 6 958	Highest: 8 085 Lowest: 4 328 Median: 6 809 Mean: 6 649	Highest: 8 240 Lowest: 3 816 Median: 7 082 Mean: 6 599

Number of users who made reservations for using the spa pools each year	29 652	67 048	72 578
Number of users who made reservations for using the spa pools each month	Highest: 5 304 Lowest: 4 195 Median: 5 018 Mean: 4 942	Highest: 7 281 Lowest: 4 845* Median: 5 925* Mean: 5 942*	Highest: 8 077 Lowest: 3 910* Median: 6 768* Mean: 6 544*

* Note: Annual maintenance was carried out at the spa pools during June 2017 and June 2018. The above statistics on the number of users have excluded the figures for these two months.

(4) The T • PARK operates under a Design-Build-Operate contract. The expenditure of the Sludge Treatment Facility and the Environmental Education Centre has already been included in the overall operating cost of the project and a breakdown by individual item is not available. The overall operating expenditure of the T • PARK each year is as follows and the manpower resources for the relevant work have been absorbed by the existing staff of the EPD.

Year	2015-16	2016-17	2017-18	2018-19	2019-20
Operating expenditure (\$m)	220 (Actual)	237 (Actual)	250 (Actual)	257 (Revised estimate)	292 (Estimate)

- End -

CONTROLLING OFFICER'S REPLY

ENB293

(Question Serial No. 6125)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned on page 210 of the Estimates that the Department will “press ahead with the introduction of a producer responsibility scheme (PRS) on plastic beverage containers”. In this connection, would the Department please reply on the following:

- (1) When will the Department submit a paper to the Legislative Council?
- (2) Has the Department made reference to the relevant policies of other countries and their effectiveness? If yes, what are the details?
- (3) Has the Department assessed or gathered statistics on the daily or annual quantity of plastic beverage containers imported to Hong Kong? If yes, please provide the figures.
- (4) Has the Department assessed or gathered statistics on the daily or annual quantity of plastic beverage containers produced in Hong Kong? If yes, please provide the figures.
- (5) Has the Department assessed or gathered statistics on the number of food manufacturers who produce beverages in plastic containers in Hong Kong? If yes, please provide the figures.
- (6) Regarding “launching a pilot scheme on the application of reverse vending machine for collection of such containers”, how many such “reverse vending machines” are there in Hong Kong at present? What is the quantity of containers collected? What is the cost of each “reverse vending machine”? What is the average cost for collecting one such container?
- (7) Regarding “launching a pilot scheme on the application of reverse vending machine”, what is the Department’s work plan? What are the anticipated announcement date and implementation timetable of the scheme?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 96)

Reply:

(1) The Environmental Protection Department (EPD) commissioned a feasibility study on the introduction of a producer responsibility scheme (PRS) on plastic product containers, targeting those carrying beverages or personal care products, in October 2017. Taking into account the recommendations of the consultant, we decided to accord priority to plastic

beverage containers, which account for about 60% of overall waste plastic containers disposed of in Hong Kong, and proceed first with the introduction of a PRS for this type of containers. We plan to consult the public on the proposed way forward in 2019. We will collate and consider the views collected during the public consultation, and then draw up a proposal and an implementation timetable and submit the relevant paper to the Legislative Council in a timely manner.

(2) According to the findings of the consultant commissioned by the EPD to review the relevant experience of other regions, the “deposit-refund system” is often used for the PRS on plastic product containers in places like Europe, North America and Australia to provide a financial incentive for customers to return their used containers. The recovery rate in these regions is generally higher, with most of them reaching 80% or above. On the other hand, legislation, including waste charging and requiring or encouraging separation of recyclables at source to facilitate recycling of plastic containers, is more commonly adopted in the Asian region. The recovery rate of plastic containers in this region is comparatively lower. The study also found that the plastic containers recovered by the “deposit-refund system” are relatively clean, which has helped enhance the recycling value of the plastics. In addition, some regions implementing the PRS through a “deposit-refund system”, including Germany, the Netherlands, Denmark, the United States (New York City) and Australia (State of South Australia), also use reverse vending machines (RVMs) to facilitate consumers’ return of beverage containers, which helps enhance the efficiency and quality of recycling. Having regard to the recommendations of the consultant, we will consider introducing arrangements similar to that of a “deposit-refund system” implemented in other places by providing a financial incentive to encourage the public to return their plastic beverage containers. In parallel, we will consider the application of RVM to enhance the recovery efficiency of plastic beverage containers, taking into account the feasibility and cost-effectiveness of using such equipment given the space constraints in Hong Kong.

(3) – (5) According to the statistics of municipal solid waste disposed of at landfills in 2017, it is estimated that the annual quantity of waste plastic beverage containers generated in Hong Kong is about 45 000 tonnes. We do not have breakdowns of the quantity of plastic beverage containers imported to or produced in Hong Kong. We do not have statistics on the number of food manufacturers who produce beverages in plastic containers in Hong Kong either.

(6) – (7) The EPD is preparing for the implementation of a pilot scheme on the application of RVM, and will assess its performance and effectiveness in collecting waste plastic beverage containers, as well as the operational arrangements for storing and transporting the plastic bottles collected to local recyclers for further processing. Our initial plan is to place a total of 50 to 60 RVMs at different locations in the second half of 2019, primarily at public places or government facilities with higher pedestrian flow. Through the pilot scheme, the EPD will also assess the appropriate incentive and the level that should be provided having regard to the recommendations put forward by the consultant. The EPD is now undertaking the preparatory work to work out the specific details of the pilot scheme.

- End -

CONTROLLING OFFICER'S REPLY

ENB294

(Question Serial No. 6128)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please state in tabular form by month the number of days in which the Hong Kong air quality did not comply with the “short-term air quality guidelines” of the World Health Organization in the past 3 years. How many days were there for each health risk category in each month?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 99)

Reply:

The World Health Organisation (WHO)'s “Air Quality Guidelines” (WHO Guidelines) have promulgated a set of “ultimate targets” and “interim targets” (ITs) for various key air pollutants which enable governments to, having regard to their local circumstances, progressively tighten their air quality standards through adopting the ITs, and meet the WHO “ultimate targets” eventually. The Guidelines explicitly state that the air quality standards set in each country will vary according to specific approaches to balancing risks to health, technological feasibility, economic considerations and other political and social factors. At present, no country has fully adopted the WHO “ultimate targets” as its statutory air quality standards. Half of our Air Quality Objectives (AQOs) have adopted the “ultimate targets” as specified in the WHO Guidelines, with the rest (including ozone (O₃) (8-hour) and sulphur dioxide (SO₂) (24-hour)) pitching at the WHO ITs.

According to the preliminary data recorded at various air quality monitoring stations (AQMSs) by the Environmental Protection Department (EPD) in 2018, the concentrations of respirable suspended particulates (RSP), fine suspended particulates (FSP) and sulphur dioxide (SO₂) all met the relevant AQOs. Although the concentrations of nitrogen dioxide (NO₂) recorded at some AQMSs in 2018 still exceeded the concentration limit, the annual average concentrations of ambient and roadside NO₂ have dropped by about 30% respectively from 2013 to 2018, indicating that the emission control measures implemented in recent years are effective. As for ozone (O₃), apart from the influence of regional photochemical smog, a reduction of local vehicular emissions of nitric oxide (NO) has led to less NO to react with and titrate O₃, resulting in an increase of O₃ level. The

concentration levels of O₃ recorded at some AQMSs in 2018 still exceeded the concentration limit.

The compliance status, number of exceedances and relevant data of various AQMSs in the past 3 years (2016 to 2018) using Hong Kong's AQOs and the "ultimate targets" in the WHO Guidelines for comparison are set out at Annex 1.

With significant improvement in the air quality in recent years, the health risks encountered by the public have also reduced. On the whole, the total numbers of days (in percentage) with the health risk category of "High" or above level recorded at the general and roadside AQMSs in 2018 were 8.2% and 10.4% respectively, which were lower than the 14.1% and 26.2% recorded in 2014. The monthly distribution of the number of days with the daily highest health risk category recorded at various AQMSs from 2016 to 2018 is tabulated at Annex 2.

Table 1: The annual average concentrations of RSP, FSP and NO₂ recorded at various AQMSs and the long-term AQOs and WHO's Air Quality Guidelines (WHO AQG) compliance status in 2016

Long-term (annual) AQOs ^{Note 1}	RSP			FSP			NO ₂		
	Concentration limit (µg/m ³)	AQOs (WHO IT-2)	WHO AQG	Concentration limit (µg/m ³)	AQOs (WHO IT-1)	WHO AQG	Concentration limit (µg/m ³)	AQOs (WHO AQG)	
		50	20		35	10		40(40)	
Number of exceedances allowed	Not applicable								
AQMS	Annual average concentration in 2016	Compliance with the standard? (Yes/No)		Annual average concentration in 2016	Compliance with the standard? (Yes/No)		Annual average concentration in 2016	Compliance with the standard? (Yes/No)	
General AQMS	Central/ Western	32	Yes	No	22	Yes	No	43	No
	Eastern	30	Yes	No	20	Yes	No	46	No
	Kwun Tong	37	Yes	No	23	Yes	No	54	No
	Sham Shui Po	35	Yes	No	23	Yes	No	58	No
	Kwai Chung	33	Yes	No	22	Yes	No	59	No
	Tsuen Wan	31	Yes	No	21	Yes	No	56	No
	Tseung Kwan O ^{Note 2}	27	-	-	17	-	-	29	-
	Yuen Long	37	Yes	No	23	Yes	No	46	No
	Tuen Mun	44	Yes	No	27	Yes	No	51	No
	Tung Chung	33	Yes	No	21	Yes	No	36	Yes
	Tai Po	29	Yes	No	20	Yes	No	33	Yes
	Sha Tin	29	Yes	No	20	Yes	No	38	Yes
Tap Mun ^{Note 3}	30	-	-	19	-	-	10	-	
Roadside AQMS	Causeway Bay	45	Yes	No	32	Yes	No	89	No
	Central	31	Yes	No	20	Yes	No	78	No
	Mong Kok	37	Yes	No	26	Yes	No	78	No

Note 1: There are no long-term AQOs for SO₂ and O₃.

Note 2: Tseung Kwan O Monitoring Station commenced operation on 16 March 2016. No compliance assessment is made due to insufficient data.

Note 3: The operation of Tap Mun Monitoring Station was temporarily suspended due to rooftop refurbishment works from 30 November 2015 to 25 February 2016. No compliance assessment is made due to insufficient data.

Table 2: The short-term concentrations of RSP, FSP and NO₂ recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2016

Short-term AQOs	RSP		FSP		NO ₂		
	AQOs (WHO IT-2)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	AQOs (WHO AQG)	WHO AQG Note 1	
Average time	24-hour	24-hour	24-hour	24-hour	1-hour	1-hour	
Concentration limit (µg/m ³)	100	50	75	25	200	200	
Number of exceedances allowed	9	Not specified	9	Not specified	18	Not specified	
AQMS	Short-term concentrations in 2016 ^{Note 2} (µg/m ³), number of exceedances (in brackets) and compliance with the standard? (Yes/No)						
General AQMS	Central/Western	80(2)/Yes	-	50(0)/Yes	-	152(0)/Yes	-
	Eastern	71(3)/Yes	-	45(0)/Yes	-	134(0)/Yes	-
	Kwun Tong	89(4)/Yes	-	50(0)/Yes	-	200(18)/Yes	-
	Sham Shui Po	77(3)/Yes	-	48(0)/Yes	-	161(4)/Yes	-
	Kwai Chung	71(1)/Yes	-	50(0)/Yes	-	185(8)/Yes	-
	Tsuen Wan	75(1)/Yes	-	53(0)/Yes	-	175(8)/Yes	-
	Tseung Kwan O ^{Note 3}	59(0)/-	-	41(0)/-	-	127(0)/-	-
	Yuen Long	86(4)/Yes	-	63(1)/Yes	-	149(1)/Yes	-
	Tuen Mun	103(10)/No	-	63(2)/Yes	-	167(4)/Yes	-
	Tung Chung	92(6)/Yes	-	63(2)/Yes	-	150(0)/Yes	-
	Tai Po	74(1)/Yes	-	55(0)/Yes	-	112(0)/Yes	-
	Sha Tin	66(2)/Yes	-	44(0)/Yes	-	137(0)/Yes	-
	Tap Mun ^{Note 4}	68(1)/-	-	43(0)/-	-	58(0)/-	-
	Roadside AQMS	Causeway Bay	89(4)/Yes	-	59(2)/Yes	-	274(134)/No
Central		82(1)/Yes	-	50(0)/Yes	-	258(79)/No	-
Mong Kok		80(2)/Yes	-	57(0)/Yes	-	218(36)/No	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimize the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term RSP and FSP concentrations under AQOs were the tenth highest level and the short-term NO₂ concentrations were the nineteenth highest level.

Note 3: Tseung Kwan O Monitoring Station commenced operation on 16 March 2016. No compliance assessment is made due to insufficient data.

Note 4: The operation of Tap Mun Monitoring Station was temporarily suspended due to rooftop refurbishment works from 30 November 2015 to 25 February 2016. No compliance assessment is made due to insufficient data.

Table 3: The short-term concentrations of SO₂ and O₃ recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2016

Short-term AQOs	SO ₂		SO ₂		O ₃		
	AQOs (WHO AQG)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	
Average time	10-minute	10-minute	24-hour	24-hour	8-hour	8-hour	
Concentration limit (µg/m ³)	500	500	125	20	160	100	
Number of exceedances allowed	3	Not specified	3	Not specified	9	Not specified	
AQMS	Short-term concentrations in 2016 ^{Note 2} (µg/m ³), number of exceedances (in brackets) and compliance with the standard? (Yes/No)						
General AQMS	Central/Western	103(0)/Yes	-	27(0)/Yes	-	138(3)/Yes	-
	Eastern	82(0)/Yes	-	16(0)/Yes	-	132(4)/Yes	-
	Kwun Tong	53(0)/Yes	-	17(0)/Yes	-	116(0)/Yes	-
	Sham Shui Po	126(0)/Yes	-	26(0)/Yes	-	106(2)/Yes	-
	Kwai Chung	147(0)/Yes	-	36(0)/Yes	-	107(1)/Yes	-
	Tsuen Wan	94(0)/Yes	-	24(0)/Yes	-	116(3)/Yes	-
	Tseung Kwan O ^{Note 3}	40(0)/-	-	13(0)/-	-	152(7)/-	-
	Yuen Long	58(0)/Yes	-	17(0)/Yes	-	143(5)/Yes	-
	Tuen Mun	75(0)/Yes	-	28(0)/Yes	-	143(7)/Yes	-
	Tung Chung	63(0)/Yes	-	20(0)/Yes	-	142(4)/Yes	-
	Tai Po	37(0)/Yes	-	10(0)/Yes	-	147(5)/Yes	-
	Sha Tin	67(0)/Yes	-	16(0)/Yes	-	141(2)/Yes	-
Tap Mun ^{Note 4}	45(0)/-	-	15(0)/-	-	169(15)/ No	-	
Roadside AQMS	Causeway Bay	89(0)/Yes	-	15(0)/Yes	-	69(0)/Yes	-
	Central	75(0)/Yes	-	24(0)/Yes	-	96(0)/Yes	-
	Mong Kok	83(0)/Yes	-	21(0)/Yes	-	71(0)/Yes	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimize the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term SO₂ concentrations (10-minute and 24-hour) under AQOs were the fourth highest level and the short-term O₃ concentrations were the tenth highest level.

Note 3: Tseung Kwan O Monitoring Station commenced operation on 16 March 2016. No compliance assessment is made due to insufficient data.

Note 4: The operation of Tap Mun Monitoring Station was temporarily suspended due to rooftop refurbishment works from 30 November 2015 to 25 February 2016. No compliance assessment is made due to insufficient data.

Table 4: The short-term concentrations of CO recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2016

Short-term AQOs	CO		CO		
	AQOs (WHO AQG)	WHO AQG ^{Note 1}	AQOs (WHO AQG)	WHO AQG ^{Note 1}	
Average time	1-hour	1-hour	8-hour	8-hour	
Concentration limit ($\mu\text{g}/\text{m}^3$)	30 000	30 000	10 000	10 000	
Number of exceedances allowed	0	Not specified	0	Not specified	
AQMS	Short-term concentrations in 2016 ^{Note 2} ($\mu\text{g}/\text{m}^3$), number of exceedances (in brackets) and compliance with the standard? (Yes/No)				
General AQMS	Central/Western	//	//	//	//
	Eastern	//	//	//	//
	Kwun Tong	//	//	//	//
	Sham Shui Po	//	//	//	//
	Kwai Chung	//	//	//	//
	Tsuen Wan	2 750(0)/Yes	-	2 339(0)/Yes	-
	Tseung Kwan O ^{Note 3}	1 850(0)/-	-	1 673(0)/-	-
	Yuen Long	2 080(0)/Yes	-	1 474(0)/Yes	-
	Tuen Mun	2 050(0)/Yes	-	1 843(0)/Yes	-
	Tung Chung	2 260(0)/Yes	-	1 581(0)/Yes	-
	Tai Po	//	//	//	//
	Sha Tin	//	//	//	//
	Tap Mun ^{Note 4}	1 470(0)/-	-	1 453(0)/-	-
Roadside AQMS	Causeway Bay	3 130(0)/Yes	-	2 215(0)/Yes	-
	Central	2 000(0)/Yes	-	1 739(0)/Yes	-
	Mong Kok	2 570(0)/Yes	-	1 911(0)/Yes	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimize the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term CO concentrations (1-hour and 8-hour) under AQOs were the first highest level.

Note 3: Tseung Kwan O Monitoring Station commenced operation on 16 March 2016. No compliance assessment is made due to insufficient data.

Note 4: The operation of Tap Mun Monitoring Station was temporarily suspended due to rooftop refurbishment works from 30 November 2015 to 25 February 2016. No compliance assessment is made due to insufficient data.

“//” denotes CO was not measured at the AQMS.

Table 5: The annual average concentrations of RSP, FSP and NO₂ recorded at various AQMSs and the long-term AQOs and WHO AQG compliance status in 2017

Long-term (annual) AQOs ^{Note 1}	RSP			FSP			NO ₂			
	Concentration limit (µg/m ³)	AQOs (WHO IT-2)	WHO AQG	Concentration limit (µg/m ³)	AQOs (WHO IT-1)	WHO AQG	Concentration limit (µg/m ³)	AQOs (WHO AQG)	WHO AQG	
		50	20		35	10		40	40	
Number of exceedances allowed	Not applicable									
AQMS	Annual average concentration in 2017	Compliance with the standard? (Yes/No)		Annual average concentration in 2017	Compliance with the standard? (Yes/No)		Annual average concentration in 2017	Compliance with the standard? (Yes/No)		
General AQMS	Central/Western	35	Yes	No	23	Yes	No	40	Yes	Yes
	Eastern	33	Yes	No	20	Yes	No	42	No	No
	Kwun Tong	39	Yes	No	23	Yes	No	44	No	No
	Sham Shui Po	33	Yes	No	21	Yes	No	54	No	No
	Kwai Chung	35	Yes	No	23	Yes	No	57	No	No
	Tsuen Wan	33	Yes	No	22	Yes	No	52	No	No
	Tseung Kwan O	31	Yes	No	18	Yes	No	28	Yes	Yes
	Yuen Long	40	Yes	No	22	Yes	No	41	No	No
	Tuen Mun	43	Yes	No	27	Yes	No	46	No	No
	Tung Chung	34	Yes	No	21	Yes	No	36	Yes	Yes
	Tai Po	32	Yes	No	22	Yes	No	39	Yes	Yes
Sha Tin	31	Yes	No	21	Yes	No	34	Yes	Yes	
Tap Mun	35	Yes	No	20	Yes	No	10	Yes	Yes	
Roadside AQMS	Causeway Bay	46	Yes	No	31	Yes	No	97	No	No
	Central	33	Yes	No	21	Yes	No	80	No	No
	Mong Kok	38	Yes	No	27	Yes	No	81	No	No

Note 1: There are no long-term AQOs for SO₂ and O₃.

Table 6: The short-term concentrations of RSP, FSP and NO₂ recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2017

Short-term AQOs	RSP		FSP		NO ₂		
	AQOs (WHO IT-2)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	AQOs (WHO AQG)	WHO AQG Note 1	
Average time	24-hour	24-hour	24-hour	24-hour	1-hour	1-hour	
Concentration limit (µg/m ³)	100	50	75	25	200	200	
Number of exceedances allowed	9	Not specified	9	Not specified	18	Not specified	
AQMS	Short-term concentrations in 2017 ^{Note 2} (µg/m ³), number of exceedances (in brackets) and compliance with the standard? (Yes/No)						
General AQMS	Central/Western	84(1)/Yes	-	59(0)/Yes	-	164(1)/Yes	-
	Eastern	74(0)/Yes	-	49(0)/Yes	-	139(0)/Yes	-
	Kwun Tong	84(1)/Yes	-	53(0)/Yes	-	199(18)/Yes	-
	Sham Shui Po	72(0)/Yes	-	46(0)/Yes	-	194(15)/Yes	-
	Kwai Chung	74(0)/Yes	-	49(0)/Yes	-	204(20)/No	-
	Tsuen Wan	77(3)/Yes	-	52(3)/Yes	-	179(8)/Yes	-
	Tseung Kwan O	65(0)/Yes	-	43(0)/Yes	-	165(2)/Yes	-
	Yuen Long	87(2)/Yes	-	52(2)/Yes	-	156(2)/Yes	-
	Tuen Mun	99(9)/Yes	-	65(3)/Yes	-	188(12)/Yes	-
	Tung Chung	81(5)/Yes	-	57(2)/Yes	-	144(2)/Yes	-
	Tai Po	82(1)/Yes	-	55(0)/Yes	-	127(0)/Yes	-
	Sha Tin	72(1)/Yes	-	54(1)/Yes	-	144(0)/Yes	-
Tap Mun	74(0)/Yes	-	43(0)/Yes	-	52(0)/Yes	-	
Roadside AQMS	Causeway Bay	90(2)/Yes	-	65(4)/Yes	-	325(272)/No	-
	Central	84(2)/Yes	-	56(1)/Yes	-	267(126)/No	-
	Mong Kok	84(0)/Yes	-	57(2)/Yes	-	257(90)/No	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimize the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term RSP and FSP concentrations under AQOs were the tenth highest level and the short-term NO₂ concentrations were the nineteenth highest level.

Table 7: The short-term concentrations of SO₂ and O₃ recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2017

Short-term AQOs	SO ₂		SO ₂		O ₃		
	AQOs (WHO AQG)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	
Average time	10-minute	10-minute	24-hour	24-hour	8-hour	8-hour	
Concentration limit (µg/m ³)	500	500	125	20	160	100	
Number of exceedances allowed	3	Not specified	3	Not specified	9	Not specified	
AQMS	Short-term concentrations in 2017 ^{Note 2} (µg/m ³), number of exceedances (in brackets) and compliance with the standard? (Yes/No)						
General AQMS	Central/ Western	125(0)/Yes	-	29(0)/Yes	-	159(9)/Yes	-
	Eastern	54(0)/Yes	-	14(0)/Yes	-	160(8)/Yes	-
	Kwun Tong	53(0)/Yes	-	19(0)/Yes	-	135(2)/Yes	-
	Sham Shui Po	76(0)/Yes	-	25(0)/Yes	-	130(3)/Yes	-
	Kwai Chung	93(0)/Yes	-	24(0)/Yes	-	129(4)/Yes	-
	Tsuen Wan	105(0)/Yes	-	24(0)/Yes	-	141(7)/Yes	-
	Tseung Kwan O	39(0)/Yes	-	15(0)/Yes	-	175(22)/No	-
	Yuen Long	80(0)/Yes	-	20(0)/Yes	-	175(13)/No	-
	Tuen Mun	88(0)/Yes	-	26(0)/Yes	-	176(20)/No	-
	Tung Chung	87(0)/Yes	-	21(0)/Yes	-	187(14)/No	-
	Tai Po	39(0)/Yes	-	9(0)/Yes	-	181(17)/No	-
	Sha Tin	53(0)/Yes	-	16(0)/Yes	-	167(14)/No	-
Tap Mun	32(0)/Yes	-	14(0)/Yes	-	192(37)/No	-	
Roadside AQMS	Causeway Bay	95(0)/Yes	-	25(0)/Yes	-	78(0)/Yes	-
	Central	91(0)/Yes	-	24(0)/Yes	-	103(0)/Yes	-
	Mong Kok	83(0)/Yes	-	20(0)/Yes	-	91(0)/Yes	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimize the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term SO₂ concentrations (10-minute and 24-hour) under AQOs were the fourth highest level and the short-term O₃ concentrations were the tenth highest level.

Table 8: The short-term concentrations of CO recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2017

Short-term AQOs	CO		CO		
	AQOs (WHO AQG)	WHO AQG ^{Note 1}	AQOs (WHO AQG)	WHO AQG ^{Note 1}	
Average time	1-hour	1-hour	8-hour	8-hour	
Concentration limit ($\mu\text{g}/\text{m}^3$)	30 000	30 000	10 000	10 000	
Number of exceedances allowed	0	Not specified	0	Not specified	
AQMS	Short-term concentrations in 2017 ^{Note 2} ($\mu\text{g}/\text{m}^3$), number of exceedances (in brackets) and compliance with the standard? (Yes/No)				
General AQMS	Central/ Western	//	//	//	//
	Eastern	//	//	//	//
	Kwun Tong	//	//	//	//
	Sham Shui Po	//	//	//	//
	Kwai Chung	//	//	//	//
	Tsuen Wan	1 610(0)/Yes	-	1 414(0)/Yes	-
	Tseung Kwan O	1 830(0)/Yes	-	1 574(0)/Yes	-
	Yuen Long	1 450(0)/Yes	-	1 324(0)/Yes	-
	Tuen Mun	1 740(0)/Yes	-	1 630(0)/Yes	-
	Tung Chung	1 810(0)/Yes	-	1 544(0)/Yes	-
	Tai Po	//	//	//	//
	Sha Tin	//	//	//	//
	Tap Mun	1 770(0)/Yes	-	1 543(0)/Yes	-
Roadside AQMS	Causeway Bay	2 420(0)/Yes	-	2 090(0)/Yes	-
	Central	2 050(0)/Yes	-	1 879(0)/Yes	-
	Mong Kok	2 390(0)/Yes	-	2 156(0)/Yes	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimize the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term CO concentrations (1-hour and 8-hour) under AQOs were the first highest level.

“//” denotes CO was not measured at the AQMS.

Table 9: The annual average concentrations of RSP, FSP and NO₂ recorded at various AQMSs and the long-term AQOs and WHO AQG compliance status in 2018

Long-term (annual) AQOs ^{Note 1}		RSP			FSP			NO ₂		
		Concentration limit (µg/m ³)	AQOs (WHO IT-2)	WHO AQG	Concentration limit (µg/m ³)	AQOs (WHO IT-1)	WHO AQG	Concentration limit (µg/m ³)	AQOs (WHO AQG)	WHO AQG
			50	20		35	10		40	40
Number of exceedances allowed		Not applicable								
AQMS		Annual average concentration in 2018 ^{Note 2}	Compliance with the standard? (Yes/No)		Annual average concentration in 2018 ^{Note 2}	Compliance with the standard? (Yes/No)		Annual average concentration in 2018 ^{Note 2}	Compliance with the standard? (Yes/No)	
General AQMS	Central/Western	34	Yes	No	21	Yes	No	39	Yes	Yes
	Eastern	33	Yes	No	19	Yes	No	39	Yes	Yes
	Kwun Tong	38	Yes	No	22	Yes	No	43	No	No
	Sham Shui Po	32	Yes	No	21	Yes	No	49	No	No
	Kwai Chung	32	Yes	No	20	Yes	No	55	No	No
	Tsuen Wan	30	Yes	No	20	Yes	No	45	No	No
	Tseung Kwan O	28	Yes	No	15	Yes	No	28	Yes	Yes
	Yuen Long	37	Yes	No	20	Yes	No	43	No	No
	Tuen Mun	42	Yes	No	26	Yes	No	47	No	No
	Tung Chung	31	Yes	No	18	Yes	No	33	Yes	Yes
	Tai Po	31	Yes	No	19	Yes	No	36	Yes	Yes
	Sha Tin	32	Yes	No	19	Yes	No	35	Yes	Yes
Tap Mun	31	Yes	No	17	Yes	No	11	Yes	Yes	
Roadside AQMS	Causeway Bay	46	Yes	No	30	Yes	No	87	No	No
	Central	34	Yes	No	21	Yes	No	80	No	No
	Mong Kok	36	Yes	No	24	Yes	No	79	No	No

Note 1: There are no long-term AQOs for SO₂ and O₃.

Note 2: The data of 2018 are not yet validated.

Table 10: The short-term concentrations of RSP, FSP and NO₂ recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2018

Short-term AQOs	RSP		FSP		NO ₂		
	AQOs (WHO IT-2)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	AQOs (WHO AQG)	WHO AQG Note 1	
Average time	24-hour	24-hour	24-hour	24-hour	1-hour	1-hour	
Concentration limit (µg/m ³)	100	50	75	25	200	200	
Number of exceedances allowed	9	Not specified	9	Not specified	18	Not specified	
AQMS	Short-term concentrations in 2018 ^{Note 2} (µg/m ³), number of exceedances (in brackets) and compliance with the standard? (Yes/No)						
General AQMS	Central/Western	70(2)/Yes	-	47(2)/Yes	-	159(4)/Yes	-
	Eastern	68(1)/Yes	-	39(0)/Yes	-	128(0)/Yes	-
	Kwun Tong	78(2)/Yes	-	45(0)/Yes	-	178(11)/Yes	-
	Sham Shui Po	59(0)/Yes	-	41(0)/Yes	-	152(1)/Yes	-
	Kwai Chung	62(0)/Yes	-	38(0)/Yes	-	196(14)/Yes	-
	Tsuen Wan	71(2)/Yes	-	48(2)/Yes	-	181(9)/Yes	-
	Tseung Kwan O	53(0)/Yes	-	32(0)/Yes	-	135(0)/Yes	-
	Yuen Long	75(4)/Yes	-	46(1)/Yes	-	150(3)/Yes	-
	Tuen Mun	87(4)/Yes	-	53(2)/Yes	-	177(11)/Yes	-
	Tung Chung	73(2)/Yes	-	48(2)/Yes	-	156(7)/Yes	-
	Tai Po	69(0)/Yes	-	47(0)/Yes	-	125(0)/Yes	-
	Sha Tin	65(1)/Yes	-	40(0)/Yes	-	149(0)/Yes	-
Tap Mun	60(0)/Yes	-	32(0)/Yes	-	51(0)/Yes	-	
Roadside AQMS	Causeway Bay	82(1)/Yes	-	55(1)/Yes	-	277(148)/No	-
	Central	74(1)/Yes	-	50(1)/Yes	-	257(120)/No	-
	Mong Kok	73(2)/Yes	-	51(2)/Yes	-	243(48)/No	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimize the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term RSP and FSP concentrations under AQOs were the tenth highest level and the short-term NO₂ concentrations were the nineteenth highest level. The data of 2018 are not yet validated.

Table 11: The short-term concentrations of SO₂ and O₃ recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2018

Short-term AQOs	SO ₂		SO ₂		O ₃		
	AQOs (WHO AQG)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	
Average time	10-minute	10-minute	24-hour	24-hour	8-hour	8-hour	
Concentration limit (µg/m ³)	500	500	125	20	160	100	
Number of exceedances allowed	3	Not specified	3	Not specified	9	Not specified	
AQMS	Short-term concentrations in 2018 ^{Note 2} (µg/m ³), number of exceedances (in brackets) and compliance with the standard? (Yes/No)						
General AQMS	Central/Western	135(0)/Yes	-	22(0)/Yes	-	164(11)/ No	-
	Eastern	123(0)/Yes	-	12(0)/Yes	-	161(10)/ No	-
	Kwun Tong	51(0)/Yes	-	12(0)/Yes	-	130(0)/Yes	-
	Sham Shui Po	98(0)/Yes	-	21(0)/Yes	-	147(5)/Yes	-
	Kwai Chung	134(0)/Yes	-	27(0)/Yes	-	133(1)/Yes	-
	Tsuen Wan	113(0)/Yes	-	21(0)/Yes	-	148(9)/Yes	-
	Tseung Kwan O	38(0)/Yes	-	13(0)/Yes	-	169(15)/No	-
	Yuen Long	52(0)/Yes	-	17(0)/Yes	-	162(10)/No	-
	Tuen Mun	94(0)/Yes	-	20(0)/Yes	-	173(18)/No	-
	Tung Chung	88(0)/Yes	-	19(0)/Yes	-	173(14)/No	-
	Tai Po	24(0)/Yes	-	8(0)/Yes	-	167(13)/No	-
	Sha Tin	76(0)/Yes	-	16(0)/Yes	-	182(17)/No	-
	Tap Mun	29(0)/Yes	-	13(0)/Yes	-	184(20)/No	-
Roadside AQMS	Causeway Bay	82(0)/Yes	-	19(0)/Yes	-	78(0)/Yes	-
	Central	101(0)/Yes	-	20(0)/Yes	-	96(0)/Yes	-
	Mong Kok	88(0)/Yes	-	19(0)/Yes	-	97(0)/Yes	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimize the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term SO₂ concentrations (10-minute and 24-hour) under AQOs were the fourth highest level and the short-term O₃ concentrations were the tenth highest level. The data of 2018 are not yet validated.

Table 12: The short-term concentrations of CO recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2018

Short-term AQOs	CO		CO		
	AQOs (WHO AQG)	WHO AQG ^{Note 1}	AQOs (WHO AQG)	WHO AQG ^{Note 1}	
Average time	1-hour	1-hour	8-hour	8-hour	
Concentration limit ($\mu\text{g}/\text{m}^3$)	30 000	30 000	10 000	10 000	
Number of exceedances allowed	0	Not specified	0	Not specified	
AQMS	Short-term concentrations in 2018 ^{Note 2} ($\mu\text{g}/\text{m}^3$), number of exceedances (in brackets) and compliance with the standard? (Yes/No)				
General AQMS	Central/ Western	//	//	//	//
	Eastern	//	//	//	//
	Kwun Tong	//	//	//	//
	Sham Shui Po	//	//	//	//
	Kwai Chung	//	//	//	//
	Tsuen Wan	1 680(0)/Yes	-	1 421(0)/Yes	-
	Tseung Kwan O	2 130(0)/Yes	-	1 838(0)/Yes	-
	Yuen Long	1 724(0)/Yes	-	1 575(0)/Yes	-
	Tuen Mun	1 900(0)/Yes	-	1 664(0)/Yes	-
	Tung Chung	1 780(0)/Yes	-	1 353(0)/Yes	-
	Tai Po	//	//	//	//
	Sha Tin	//	//	//	//
	Tap Mun	1 747(0)/Yes	-	1 151(0)/Yes	-
Roadside AQMS	Causeway Bay	2 610(0)/Yes	-	2 047(0)/Yes	-
	Central	2 330(0)/Yes	-	1 685(0)/Yes	-
	Mong Kok	2 340(0)/Yes	-	2 041(0)/Yes	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimize the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term CO concentrations (1-hour and 8-hour) under AQOs were the first highest level. The data of 2018 are not yet validated.

“//” denotes CO was not measured at the AQMS.

Table 1: The monthly distribution of health risk categories recorded at various AQMSs in 2016

		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O ^{Note 1}	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun ^{Note 2}
Health Risk Category		Number of days															
Jan 2016	Low	1	5	4	10	11	7	8	9	9	-	13	10	14	13	13	-
	Moderate	28	25	26	21	20	24	23	21	21	-	18	18	14	18	18	-
	High	1	1	1	0	0	0	0	1	1	-	0	3	3	0	0	-
	Very High	1	0	0	0	0	0	0	0	0	-	0	0	0	0	0	-
	Serious	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	-
Feb 2016	Low	1	1	5	9	11	7	11	9	10	-	10	11	11	14	12	0
	Moderate	23	27	20	20	18	20	18	20	19	-	18	17	18	15	17	4
	High	3	1	4	0	0	2	0	0	0	-	1	1	0	0	0	0
	Very High	2	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0
Mar 2016	Low	0	2	3	7	5	8	7	7	7	5	13	8	9	13	11	11
	Moderate	27	28	25	23	25	20	22	20	23	11	17	18	20	17	19	18
	High	2	0	3	0	1	3	2	3	1	0	0	4	1	0	1	2
	Very High	2	1	0	1	0	0	0	1	0	0	1	1	0	1	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Apr 2016	Low	2	5	5	11	7	6	9	5	5	12	19	9	14	15	15	14
	Moderate	25	24	24	18	21	23	20	23	24	17	10	19	15	14	14	15
	High	3	1	1	1	2	1	1	2	1	1	0	1	0	1	1	1
	Very High	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May 2016	Low	2	8	8	14	10	9	13	13	14	14	18	15	15	15	15	12
	Moderate	27	21	20	15	19	19	16	16	15	15	10	12	11	14	15	17
	High	0	1	1	2	1	2	1	1	1	2	2	1	2	2	1	2
	Very High	2	1	2	0	1	1	1	1	1	0	1	3	3	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun 2016	Low	6	19	21	28	19	14	28	22	25	28	26	28	29	28	28	27
	Moderate	24	11	9	2	11	16	2	8	5	2	4	2	1	2	2	3
	High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Very High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Roadside AQMS				General AQMS												
	Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O ^{Note 1}	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun ^{Note 2}	
Health Risk Category	Number of days																
Jul 2016	Low	11	16	17	22	20	15	20	18	20	22	22	22	21	21	22	22
	Moderate	17	13	12	7	9	14	9	11	8	7	3	6	6	7	7	6
	High	1	0	0	0	0	0	0	0	1	0	3	1	1	1	0	0
	Very High	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	2
	Serious	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2
Aug 2016	Low	5	7	7	9	10	8	9	8	10	15	10	11	12	14	14	13
	Moderate	22	23	21	20	20	21	20	20	18	15	15	16	15	13	15	16
	High	2	0	2	1	0	1	1	2	1	0	1	0	1	2	1	1
	Very High	1	0	1	0	1	1	1	1	2	1	5	4	3	2	1	1
	Serious	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Sep 2016	Low	0	7	7	8	8	2	8	7	8	8	8	8	9	8	10	8
	Moderate	22	18	18	16	18	24	18	18	17	18	12	12	12	18	17	18
	High	1	1	3	1	3	1	3	3	2	2	4	1	3	1	1	3
	Very High	7	4	2	5	1	3	1	2	3	2	5	7	5	3	2	1
	Serious	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0
Oct 2016	Low	4	10	6	12	9	8	8	8	9	12	10	8	14	15	14	10
	Moderate	25	19	24	16	21	21	22	22	21	19	19	20	13	15	16	21
	High	1	1	0	2	0	1	0	0	0	0	0	1	2	0	1	0
	Very High	1	1	1	0	1	1	1	1	1	0	2	1	1	1	0	0
	Serious	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0
Nov 2016	Low	2	5	5	7	7	7	5	7	8	8	4	4	8	8	8	9
	Moderate	28	23	25	23	23	23	25	23	21	22	23	23	19	22	22	20
	High	0	2	0	0	0	0	0	0	1	0	2	1	2	0	0	1
	Very High	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 2016	Low	0	0	0	0	0	0	0	0	0	1	0	0	0	2	1	1
	Moderate	25	21	28	26	28	29	30	25	23	30	21	21	22	25	29	26
	High	3	4	1	4	3	2	1	4	3	0	2	2	2	3	1	4
	Very High	3	6	2	1	0	0	0	2	5	0	8	7	7	1	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0

	Roadside AQMS			General AQMS													
	Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O ^{Note 1}	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun ^{Note 2}	
Health Risk Category	Number of days																
2016 whole year	Low	34	85	88	137	117	91	126	113	125	125	153	134	156	166	163	127
	Moderate	293	253	252	207	233	254	225	227	215	156	170	184	166	180	191	164
	High	17	12	16	11	10	13	9	16	12	5	15	16	17	10	7	14
	Very High	19	13	9	7	4	6	4	8	12	3	25	26	22	8	3	4
	Serious	3	3	1	4	2	2	2	2	2	2	3	6	5	2	2	1

Note 1: Tseung Kwan O Monitoring Station commenced operation on 16 March 2016.

Note 2: The operation of Tap Mun Monitoring Station was temporarily suspended due to rooftop refurbishment works from 30 November 2015 to 25 February 2016. No health risk data was available during this period.

Table 2: The monthly distribution of health risk categories recorded at various AQMSs in 2017

		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun
Health Risk Category		Number of days															
Jan 2017	Low	0	1	3	4	3	4	5	5	4	4	4	4	4	5	4	4
	Moderate	26	28	27	26	27	26	26	25	25	27	26	26	26	25	26	26
	High	2	0	1	0	1	1	0	1	1	0	0	0	0	1	0	1
	Very High	3	2	0	1	0	0	0	0	0	1	0	1	1	1	0	1
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb 2017	Low	0	0	2	3	2	2	3	3	3	2	4	4	5	2	5	4
	Moderate	27	26	25	25	25	26	25	25	25	25	22	21	23	26	23	22
	High	1	2	1	0	1	0	0	0	0	1	2	3	0	0	0	2
	Very High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar 2017	Low	0	0	1	1	0	1	2	2	1	0	2	2	3	1	2	1
	Moderate	28	28	29	29	29	29	27	28	29	29	28	28	27	29	28	28
	High	2	2	0	0	1	0	1	0	0	1	0	0	0	0	0	2
	Very High	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr 2017	Low	1	5	6	5	6	8	9	7	5	7	13	13	10	8	8	9
	Moderate	23	22	22	24	23	20	20	22	24	22	15	14	19	19	21	18
	High	3	3	1	1	1	2	1	1	1	1	0	1	1	2	1	3
	Very High	3	0	1	0	0	0	0	0	0	0	2	2	0	1	0	0
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May 2017	Low	0	1	1	2	1	4	4	2	3	4	7	5	3	5	8	6
	Moderate	24	24	24	24	23	22	22	25	23	20	18	19	21	20	18	20
	High	2	2	1	1	3	3	3	0	1	4	2	3	2	2	1	3
	Very High	5	4	4	4	4	2	2	4	3	3	3	2	2	4	4	1
	Serious	0	0	1	0	0	0	0	0	1	0	1	2	3	0	0	1
Jun 2017	Low	3	25	28	30	30	28	30	26	30	30	29	30	30	30	30	29
	Moderate	27	5	2	0	0	2	0	4	0	0	1	0	0	0	0	1
	High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Very High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Roadside AQMS			General AQMS													
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun	
	Health Risk Category	Number of days																
Jul 2017	Low	15	27	26	27	27	27	27	26	27	27	25	25	27	27	27	27	
	Moderate	13	2	3	2	2	2	2	3	2	2	3	3	1	1	2	2	
	High	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
	Very High	0	1	1	1	1	1	1	1	1	1	0	2	1	1	0	1	2
	Serious	2	1	1	1	1	1	1	1	1	1	2	1	2	1	2	1	0
Aug 2017	Low	3	23	15	24	24	19	24	19	22	23	21	22	24	19	24	22	
	Moderate	23	4	13	4	3	8	4	8	5	3	5	4	2	6	3	6	
	High	2	1	0	0	2	1	1	1	0	1	0	0	0	1	1	2	
	Very High	3	3	3	3	2	3	2	3	4	4	3	4	3	4	3	1	
	Serious	0	0	0	0	0	0	0	0	0	0	0	2	1	2	1	0	0
Sep 2017	Low	0	10	8	12	12	13	15	11	14	13	14	12	16	12	13	13	
	Moderate	23	13	15	11	11	10	8	13	10	11	7	9	7	11	11	10	
	High	0	0	0	0	1	1	0	0	0	1	1	0	1	0	0	1	
	Very High	4	5	4	4	5	5	5	3	2	4	5	3	0	6	4	5	
	Serious	3	2	3	3	1	1	2	3	4	1	3	6	6	1	2	1	
Oct 2017	Low	2	3	3	6	5	6	6	6	6	5	6	6	8	5	5	5	
	Moderate	18	21	19	16	18	18	19	17	17	19	14	12	14	17	19	18	
	High	8	5	6	8	7	6	5	3	2	6	3	5	3	3	3	4	
	Very High	3	2	3	1	1	1	1	5	6	1	8	8	6	6	4	4	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov 2017	Low	0	3	2	3	2	3	2	3	5	3	5	4	4	3	4	3	
	Moderate	24	24	25	25	26	26	27	25	20	25	19	17	20	22	23	23	
	High	5	2	2	1	1	1	0	1	3	1	2	3	2	4	2	3	
	Very High	1	1	1	1	1	0	1	1	2	1	4	4	4	1	1	1	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Dec 2017	Low	0	0	0	2	1	2	2	2	2	2	1	1	2	2	2	2	
	Moderate	16	19	21	21	24	23	22	20	20	24	18	18	18	20	23	22	
	High	7	7	4	7	5	5	6	6	6	3	7	4	7	5	3	3	
	Very High	8	5	6	1	1	1	1	3	3	2	5	8	4	4	3	4	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun
Health Risk Category		Number of days															
2017 whole year	Low	24	98	95	119	113	117	129	112	122	120	131	128	136	119	132	125
	Moderate	272	216	225	207	211	212	202	215	200	207	176	171	178	196	197	196
	High	33	24	16	18	23	20	17	13	14	19	17	19	17	19	11	24
	Very High	31	24	24	17	16	14	14	21	23	16	34	34	22	27	22	18
	Serious	5	3	5	4	2	2	3	4	6	3	7	13	12	4	3	2

Table 3: The monthly distribution of health risk categories recorded at various AQMSs in 2018

		Roadside AQMS			General AQMS													
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun	
Health Risk Category		Number of days																
Jan 2018	Low	1	4	6	8	6	6	9	6	7	7	6	6	9	6	6	8	
	Moderate	25	23	22	21	22	23	20	23	20	22	22	21	19	23	23	19	
	High	3	2	1	0	2	0	1	0	2	0	0	0	1	0	0	3	
	Very High	2	2	1	2	1	2	1	1	1	2	1	2	0	2	2	1	
	Serious	0	0	1	0	0	0	0	0	1	1	0	2	2	2	0	0	
Feb 2018	Low	1	1	1	1	0	0	5	2	1	3	5	3	5	2	2	0	
	Moderate	22	24	27	27	28	28	23	26	27	25	23	24	23	26	26	28	
	High	2	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	Very High	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Mar 2018	Low	0	0	2	1	2	3	3	3	2	2	6	3	6	2	3	3	
	Moderate	27	29	27	30	28	28	28	26	29	29	23	27	25	28	27	28	
	High	3	2	2	0	1	0	0	2	0	0	1	1	0	1	1	0	
	Very High	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Apr 2018	Low	0	10	6	9	7	8	8	7	9	8	10	7	13	12	7	7	
	Moderate	27	20	24	20	21	22	22	22	20	20	19	21	16	17	22	21	
	High	3	0	0	1	2	0	0	1	1	2	1	1	0	1	1	2	
	Very High	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May 2018	Low	2	14	11	19	17	14	19	17	22	17	15	13	20	22	18	16	
	Moderate	27	16	18	11	13	16	11	13	8	13	13	14	8	8	12	14	
	High	1	0	1	0	0	0	0	0	0	0	0	2	2	1	0	0	
	Very High	1	1	1	1	1	1	1	1	1	1	3	2	1	0	1	1	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Jun 2018	Low	5	11	14	16	14	14	16	13	14	14	14	14	14	17	14	13	
	Moderate	23	17	15	12	14	15	13	16	15	15	15	14	14	13	15	16	
	High	0	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1	
	Very High	2	2	1	2	0	0	1	1	1	0	1	2	2	0	1	0	

	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Roadside AQMS			General AQMS													
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun	
	Health Risk Category	Number of days																
Jul 2018	Low	11	27	22	28	26	25	27	27	27	28	27	27	27	27	27	29	
	Moderate	20	4	9	3	5	6	4	4	4	3	3	3	3	3	4	2	
	High	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	
	Very High	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Aug 2018	Low	5	12	6	21	19	15	17	18	20	19	18	17	19	20	20	19	
	Moderate	20	12	17	4	7	12	9	8	5	8	6	7	5	5	6	7	
	High	1	2	3	1	2	0	1	0	1	0	0	0	1	2	0	2	
	Very High	3	3	3	3	2	3	2	2	2	3	4	4	4	3	4	2	
	Serious	2	2	2	2	1	1	2	3	3	1	3	3	2	1	1	1	
Sep 2018 ^{Note 1}	Low	4	8	7	10	8	10	11	10	12	8	9	10	11	10	9	4	
	Moderate	23	19	20	17	20	18	16	17	16	20	15	13	12	14	17	12	
	High	0	0	1	1	0	0	1	1	0	1	2	0	2	3	1	0	
	Very High	3	3	2	2	2	2	2	2	2	1	4	7	5	3	3	0	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oct 2018	Low	0	0	1	1	2	1	1	2	1	1	3	2	1	2	3	1	
	Moderate	22	19	21	22	20	25	21	21	21	23	17	15	19	19	18	21	
	High	5	9	3	2	5	2	5	4	4	4	1	3	3	4	4	6	
	Very High	4	3	6	6	4	3	4	4	5	3	10	11	8	6	6	3	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Nov 2018	Low	0	0	0	2	2	0	2	1	3	1	3	3	6	2	1	2	
	Moderate	28	26	26	25	26	28	25	26	23	27	23	22	20	26	26	27	
	High	0	2	2	2	2	2	3	3	3	2	2	3	2	1	3	0	
	Very High	2	2	2	1	0	0	0	0	1	0	1	1	1	1	0	1	
	Serious	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	
Dec 2018	Low	2	3	6	9	9	7	12	10	10	12	9	6	11	11	9	12	
	Moderate	28	27	24	21	22	24	19	21	20	19	19	22	17	20	22	19	
	High	1	0	1	1	0	0	0	0	1	0	2	1	1	0	0	0	
	Very High	0	1	0	0	0	0	0	0	0	0	1	2	2	0	0	0	
	Serious	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

		Roadside AQMS			General AQMS												
		Causeway Bay	Central	Mong Kok	Central/Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Mun	Tung Chung	Tai Po	Sha Tin	Tap Mun
Health Risk Category		Number of days															
2018 whole year	Low	31	90	82	125	112	103	130	116	128	120	125	111	142	133	119	114
	Moderate	292	236	250	213	226	245	211	223	208	224	198	203	181	202	218	214
	High	19	20	14	8	16	5	11	11	12	10	9	13	13	13	10	14
	Very High	21	17	16	17	10	11	11	11	13	10	27	32	24	16	17	8
	Serious	2	2	3	2	1	1	2	4	4	1	6	6	5	1	1	1

Note 1: The operation of Tap Mun Monitoring Station was temporarily suspended from 16 to 30 September 2018 due to the attack of typhoon Mangkhut.

- End -

CONTROLLING OFFICER'S REPLY**ENB295****(Question Serial No. 6313)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please list the numbers of water dispensers installed at government premises including the bureaux' offices and at the premises and sites under their purview, the electricity consumption involved, the actual costs of repair and maintenance and other actual operational costs incurred in the past 5 years; as well as the estimated numbers of water dispensers at government departments and on government sites, the electricity consumption to be involved, the actual costs of repair and maintenance and other actual operational costs to be incurred in 2019-20.

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 86)Reply:

According to the information provided by various government bureaux and departments, there are currently a total of about 11 200 water dispensers at government premises. The numbers of water dispensers installed at government premises in the past 5 years and the estimated number in 2019-20 are as follows:

Year	Number of water dispensers
2014-15	Relevant statistics are not available
2015-16	
2016-17	About 10 500
2017-18	About 11 200
2018-19	About 11 200
2019-20	The Government will install additional water dispensers as necessary at new government venues or when conducting renovation works. In addition, to inculcate the "bring your own bottle" culture and reduce the consumption of plastic bottled water, the Chief Executive mentioned in the 2018 Policy Address that the Government would install more water dispensers at government venues with public access. The initial target is to install 500 more water dispensers in 3 years (i.e. by 2021-22). We are undertaking the

	preparatory work and expect to install 100 additional units in 2019-20, subject to the actual works progress.
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Besides, there are no separate meters installed to measure the electricity consumption of water dispensers by various bureaux and departments, and there is also no breakdown specifically for the relevant costs of repair and maintenance and other operational costs.

- End -

CONTROLLING OFFICER'S REPLY

ENB296

(Question Serial No. 6314)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Would the Department reply on the following in tabular form:

- (1) The numbers of three-colour recycling bins and glass bottle recycling bins across the territory in the past 5 years.
- (2) The respective quantities of waste paper, aluminium cans, plastic bottles and glass bottles collected by three-colour recycling bins and glass bottle recycling bins across the territory in the past 5 years, among which, the quantities of recyclables and non-recyclables.
- (3) The numbers of contractors contracted for the collection of recyclables in three-colour recycling bins and glass bottle recycling bins in the past 5 years.
- (4) Does the Department have any plan to review the effectiveness of three-colour recycling bins and glass bottle recycling bins, and to increase or reduce the number of these bins? If yes, what are the details?
- (5) What are the types, quantities and proportions of recyclables in local waste?
- (6) What are the respective percentages of the quantities of recyclables collected by three-colour recycling bins and glass bottle recycling bins in the total quantity of recyclables across the territory? Please reply by type of waste.
- (7) Has the Government reviewed the recycling effectiveness of three-colour recycling bins and glass bottle recycling bins? If yes, what are the details of the review? If no, what are the reasons?
- (8) Does the Government have any plan to recycle waste paper, aluminium cans, plastic bottles and glass bottles by other means (e.g. collecting them from merchants and restaurants proactively)? If yes, what are the details? If no, what are the reasons?
- (9) What are the Administration's estimated expenditures on three-colour recycling bins and glass bottle recycling bins in 2019-20?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 87)

Reply:

(1) – (3) and (6)

In the past 5 years, the Government placed about 16 000 sets of waste separation bins throughout the territory, including public places, schools, government quarters, country parks, as well as housing estates and commercial and industrial (C&I) buildings which had participated in the Source Separation of Waste Programme. Apart from the recycling bins (RBs) provided by the Government, additional RBs are also placed by many housing estates or C&I buildings on their own. The Environmental Protection Department (EPD) does not have the number of these RBs, hence we do not have information on the quantities of recyclables collected by RBs across the territory, the recovery rates, the percentages of the quantities of recyclables collected in the total quantity of recyclables in Hong Kong and the numbers of contractors involved, etc.

Besides, the glass management contractors (GMCs)¹ appointed by the Government began to provide collection and treatment services for glass containers progressively in 2018. They set up collection points for glass containers in various districts, mainly in places such as residential estates, C&I premises, certain suitable government facilities or those of the non-profit-making organisations, etc., where day-to-day management is taken care of by responsible personnel to ensure that no nuisance or danger will be posed to the public. In 2018, the 2 GMCs together managed about 5 600 glass bottle RBs.

(4) and (7)

Having regard to the objectives of facilitating waste reduction and resource recovery and the effective implementation of municipal solid waste (MSW) charging, the Steering Group on the Modification of Recycling and Refuse Collection Facilities in Public Places (the Steering Group) was set up by the Environment Bureau in 2016 under the chairmanship of the Secretary for the Environment. The Steering Group comprises members drawn from the relevant sectors², and is tasked with reviewing the distribution and design of recycling and refuse collection facilities in public places in a more systematic manner, and recommending modifications. In respect of the review on the number and distribution of RBs and litter containers (LCs) in public places, having regard to a set of general planning parameters recommended by a consultancy study, relevant government departments have put forward an adjustment plan. It is expected that the number of RBs will be increased by 45% while the number of LCs will be reduced by 40% in public places by the time when MSW charging is implemented, thereby enhancing the overall RB to LC ratio in public places from 1:14 to 1:6.

¹ The EPD, through open tenders, has appointed contractors to undertake collection and treatment services for waste glass containers in 3 regions, i.e. Hong Kong Island (including Islands District), Kowloon and the New Territories. The contract for Hong Kong Island and the New Territories regions commenced in November 2017, and the contract for the Kowloon region commenced in May 2018. At present, there are a total of 2 contractors providing collection and treatment services for waste glass containers across the territory.

² Including design and planning, academia, business, non-profit-making groups, district personalities, as well as relevant government departments.

The consultant engaged by the Steering Group has come up with the conceptual design of the new RBs and LCs in public places and is tapping the views of frontline staff and relevant stakeholders before putting up the recommendations to the Steering Group for consideration.

As for the glass container RBs, the 2 GMCs are expanding their recycling networks progressively and placing additional glass container RBs at suitable locations in various districts so as to provide effective and convenient glass container collection service for the public. The recycling service has been working well since its commencement. The Government will review the relevant arrangements and recycling effectiveness in a timely manner.

(5)

The statistics on the quantity of recyclables recovered from MSW in 2017 are set out as follows:

Recyclable type	Quantity recovered	
	Thousand tonnes	Percentage share
Paper	792.5	43.3%
Plastics	115.6	6.3%
Ferrous metals	785.4	42.9%
Non-ferrous metals	48.7	2.7%
Glass ⁽¹⁾	11.0	0.6%
Rubber tyres ⁽²⁾	9.3	0.5%
Textiles	3.0	0.2%
Wood	1.3	0.1%
Food waste ⁽³⁾	14.6	0.8%
Electrical and electronic equipment ⁽⁴⁾	49.0	2.7%
Total⁽⁵⁾	1 830.6	100.0%

Notes:

- (1) Glass beverage bottles recovered for reuse through deposit-and-refund system operated by local beverage manufacturers are not included.
- (2) The quantity includes reuse, retreading and recycling of vehicle tyres and retreading of aircraft tyres in Hong Kong.
- (3) The quantity of food waste recycled locally includes those recycled by industrial operators and those recycled at Outlying Islands Transfer Facilities and the EPD's composting facilities at Kowloon Bay.
- (4) The volume of waste electrical and electronic equipment recovered for recycling is compiled from the results of a biennial survey on "Generation & Disposal Practice of Used/ End-of-Life Electrical & Electronic Equipment and Batteries in Hong Kong" commissioned by the EPD.
- (5) The above-mentioned figures may not add up to total due to rounding off.

(8)

The recycling markets for waste paper and aluminium cans are stable, and their recycling value is also higher. They are mainly recovered and treated by private recyclers, and we do not have plans to adopt other modes of recycling at present. As for waste plastics, those generated by the C&I sectors are relatively homogeneous, concentrated and large in amount. There are already effective channels on the market to recover and treat these waste plastics.

However, the waste plastics generated from domestic sources are generally diverse in types, small in amount and are more scattered, leading to their high recycling costs. In view of this, the EPD plans to roll out a two-year Pilot Scheme on Collection and Recycling Services of Waste Plastics in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin) to provide free collection service for waste plastics from non-commercial and non-industrial (non-C&I) sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts, with a view to gaining practical experience before expanding the service to the whole territory. The EPD will hire contractors through service contracts to collect waste plastics direct from the above-mentioned premises for further treatment in recycling process, then produce recycled raw materials or products to be exported or supplied to the local market so as to ensure that the waste plastics collected are properly handled. The EPD is tendering the waste plastics collection service contract of the Eastern District in the hope of rolling out the services this year. We will also invite tenders for waste plastics collection services in Kwun Tong and Sha Tin districts one after another later.

Regarding glass containers, besides placing glass container RBs at suitable locations such as residential estates and C&I premises, the 2 GMCs will also provide direct glass container collection service for relevant waste producers (mainly catering premises) so as to increase the quantity of glass containers recovered.

(9)

The details of the Government's relevant expenditures on three-colour RBs in 2019-20 are tabulated below:

Government department/ Fund	Estimated expenditure in 2019-20
Food and Environmental Hygiene Department	There are two existing contracts providing recyclables collection service for three-colour RBs. Both contracts took effect on 1 September 2018, with the contract period of 2 years. At present, the total value of the contracts is about \$26.86 million and \$6.48 million respectively.
Leisure and Cultural Services Department	About \$1.54 million.
Agriculture, Fisheries and Conservation Department	About \$420,000.
Housing Department	Will be covered by the Housing Authority's internal resources.
Environment and Conservation Fund	About \$2 million has been earmarked for providing free waste separation bins for schools, as well as housing estates and C&I buildings which have participated in the Source Separation of Waste Programme.

As for glass container recycling, the EPD has earmarked \$104 million in 2019-20 as the payment for the provision of glass container collection and treatment services under the 3 glass management contracts. We do not have a separate breakdown on the expenditure involved for glass bottle RBs.

- End -

CONTROLLING OFFICER'S REPLY

ENB297

(Question Serial No. 6341)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

According to page 27 of paper for the 4th Meeting (WG Paper 1/2018) of the Air Quality Objectives (AQOs) Review Working Group under the Environment Bureau, the nitrogen dioxide (NO₂) concentration at waters around Kau Yi Chau (the Central Waters) is still expected to exceed the Hong Kong AQOs by 2025.

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 431)

Reply:

The Environment Bureau embarked on a review of the Air Quality Objectives (AQOs) in mid-2016, and conducted science-based air quality assessment, taking into consideration new air quality improvement measures which are likely to produce results by 2025 or earlier. At present, part of the waters around Kau Yi Chau are vessel anchorage areas and are affected by marine emissions. The air quality assessment results indicated that the annual average concentration of nitrogen dioxide in this area could exceed the AQOs in 2025. Any proposed development that constitutes a designated project under the Environmental Impact Assessment Ordinance must undergo the statutory environmental impact assessment process, including conducting air quality impact assessments, to ensure that the works comply with all the relevant statutory requirements.

- End -

CONTROLLING OFFICER'S REPLY

ENB298

(Question Serial No. 6475)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (-) Not Specified

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

What were the details of the activities organised, manpower and expenditure involved in each district of the network of Community Green Stations implemented by the Administration in the past 3 years?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 454)

Reply:

The Environmental Protection Department (EPD) is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. The total cost for capital works of all CGSs is estimated to be about \$400 million. The operating expenditure of individual CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions. At present, there are a total of 17 posts tasked to implement this initiative and monitor the operation of the CGSs, including 16 permanent posts and 1 time-limited post (until 2020). As at the end of 2018, 7 CGSs have progressively been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS; the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. The latest development of individual CGSs is tabulated below:

CGS	Site	Latest Development and Schedule
Sha Tin CGS	10 On Ping Street, Shek Mun	The CGS commenced operation in May 2015. In 2018, the CGS collected about 461 tonnes of recyclables, with an operating expenditure of about \$4.76 million.
Eastern CGS	30 Oi Shun Road, Shau Kei Wan	The CGS commenced operation in August 2015. In 2018, the CGS collected about 437 tonnes of recyclables, with an operating expenditure of about \$3.91 million.
Kwun Tong CGS	27 Sheung Yee Road, Kowloon Bay	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$4.27 million.
Yuen Long CGS	65 Tin Wah Road, Tin Shui Wai	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$3.46 million.
Sham Shui Po CGS	339 Tung Chau Street	The CGS commenced operation in October 2017. In 2018, the CGS collected about 394 tonnes of recyclables, with an operating expenditure of about \$4.70 million.
Tuen Mun CGS	9 Tuen Yee Street	The CGS commenced operation in September 2018. As at the end of 2018, the CGS collected about 70 tonnes of recyclables, with an operating expenditure of about \$2.10 million.
Kwai Tsing CGS	12 Tam Kon Shan Road, Tsing Yi	The CGS commenced operation in November 2018. As at the end of 2018, the CGS collected about 40 tonnes of recyclables, with an operating expenditure of about \$770,000.
Tai Po CGS	25 Dai Wah Street	The tendering for the operation contract is underway. The CGSs are expected to

CGS	Site	Latest Development and Schedule
Islands CGS	1 Chung Mun Road, Tung Chung, Lantau	commence operation within 2019.
Sai Kung CGS	Po Lam Lane, near Po Hong Road and Po Lam Road North, Tseung Kwan O	Design and construction works are in progress.
Wan Chai CGS	Wan Shing Street, near Hung Hing Road	
Tsuen Wan CGS	Hoi Shing Road, near Hoi Kok Street	The site has been confirmed and planning of construction works is in progress.
Wong Tai Sin CGS, Kowloon City CGS, Southern CGS, Yau Tsim Mong CGS, Central and Western CGS and North CGS	Site to be confirmed	We have been following up the views from District Councils. Taking into account the actual operating experience in other CGSs, we are continuing with site search and other associated preparation work.

- End -

CONTROLLING OFFICER'S REPLY**ENB299****(Question Serial No. 6476)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (-) Not SpecifiedControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

What were the numbers of visitors to the Visitor Centre with the theme of waste management in the EcoPark in the past 3 years? What were the manpower and expenditure involved? Has the Administration invited groups or schools for visits? If yes, what are the details? If no, what are the reasons?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 455)Reply:

The Environmental Protection Department (EPD) has been inviting groups and schools to visit the EcoPark through outreach programmes, electronic communication, mails, etc. with a view to enhancing environmental awareness of the public and encouraging the groups and schools concerned to more proactively participate in and promote green work at community level. The numbers of visitors to the Visitor Centre of the EcoPark in the past 3 years are set out in the table below:

Total number of visitors	Year		
	2016	2017	2018
	21 472	21 504	25 097

Managing the operation of the EcoPark (including its Visitor Centre) is part of the work of the Waste Reduction and Recycling Division of the EPD. We do not have breakdowns on the manpower and expenditure involved for such work. Besides, the EPD is engaging a contractor at a lump sum monthly fee of about \$1.22 million in managing the EcoPark. Apart from the manpower and expenditure involved in daily management of the public area and facilities of the EcoPark, the contractor should also be responsible for implementing promotional activities on waste recovery, including operating the Visitor Centre, a dedicated website of the EcoPark, etc.

- End -

CONTROLLING OFFICER'S REPLY**ENB300****(Question Serial No. 6477)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (-) Not SpecifiedControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

What were the average monthly numbers of ocean-going vessels berthed in Hong Kong in the past 3 years?

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 456)Reply:

According to the port statistics in the past 3 years published by the Marine Department, the arrival numbers of ocean-going vessels (OGVs) are set out in the table below:

Year	Annual arrival number of OGVs	Average monthly arrival number of OGVs
2016	27 642	2 303
2017	26 793	2 232
2018	25 410	2 117

The Government introduced the Air Pollution Control (Ocean Going Vessels) (Fuel at Berth) Regulation (the Fuel at Berth Regulation) on 1 July 2015, mandating OGVs to switch to low-sulphur fuel (with a sulphur content not exceeding 0.5%) while at berth. As at 31 December 2018, the Environmental Protection Department (EPD) conducted surprise inspections of 383 OGVs, and initiated prosecution against 6 non-compliance cases under the Fuel at Berth Regulation. All the prosecution cases were convicted and fined.

The Government has been implementing the Air Pollution Control (Fuel for Vessels) Regulation (the Fuel for Vessels Regulation) since 1 January 2019, requiring all vessels to use compliant fuel (including low-sulphur fuel) within the waters of Hong Kong. As the Fuel for Vessels Regulation imposes control over all vessels sailing and berthing within the waters of Hong Kong, it has superseded the Fuel at Berth Regulation. As at the end of February 2019, the EPD conducted surprise inspections of 32 OGVs. Results of the

inspections showed that all vessels complied with the requirement and had switched to low-sulphur fuel before entering Hong Kong waters.

- End -

CONTROLLING OFFICER'S REPLY

ENB301

(Question Serial No. 3856)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Government set up "low emission zones" (LEZs) in some sections of 3 roads in Causeway Bay, Mong Kok and Central in December 2015, requiring that only franchised buses of Euro IV or above could run through these zones. Setting up LEZs is one of the initiatives mapped out by the Hong Kong Government in *A Clean Air Plan for Hong Kong* to improve air quality. In this connection, would the Administration advise this Committee on the following:

(a) Trial of the 3 pilot LEZs has been conducted for nearly 4 years and the Bureau claimed that LEZs are highly effective in improving air pollution. How effective are they? Please list the emission reduction levels (in kg) for pollutants including but not limited to nitrogen dioxide (NO₂), PM_{2.5} and PM₁₀ for each year since the implementation of the trial and the emission reduction target and measurement results for the concentration of roadside air pollutants for comparison.

(b) What are the current numbers of franchised buses, with a breakdown by Euro type, plying the 3 LEZs? If relevant data is not available, what are the reasons?

(c) Both the 1-hour and annual NO₂ levels recorded at roadside monitoring stations situated in the 3 LEZs exceeded the limits of the Air Quality Objectives (AQOs) of Hong Kong. Regarding the exceedances at the roadside monitoring stations, will the Government consider extending the scope of restriction in the LEZs to cover other vehicle types? If yes, what are the details? If no, what are the reasons? Does the Administration have other emission reduction measures in place to ensure compliance of the AQOs at roadside monitoring stations? If yes, what are the details? If no, what are the reasons?

(d) Will the Government consider setting up additional restricted areas in other severely polluted districts to further reduce roadside pollution in Hong Kong? If yes, what are the details? If no, what are the reasons?

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 3)

Reply:

- (a) At the end of 2015, the Government set up a total of 3 franchised bus low emission zones (FBLEZs) in Central, Causeway Bay and Mong Kok. The FBLEZs are all located at corridors with busy traffic and high pedestrian flow, where franchised buses can account for up to 40% of the traffic. Allowing only franchised bus companies (FBCs) to deploy low emission buses (including buses of Euro IV or above, or Euro II and III buses retrofitted with selective catalytic reduction devices (SCRs) and diesel particulate filters to upgrade their emissions performance comparable to that of Euro IV or above level) to ply the routes passing these FBLEZs can improve the roadside air quality. Setting up the FBLEZs at the busy corridors in Central, Causeway Bay and Mong Kok can improve the roadside air quality not only within the FBLEZs, but also the districts that the low emission buses will ply.

The Environmental Protection Department has been monitoring the roadside air quality. According to the monitoring data of the 3 roadside Air Quality Monitoring Stations (AQMSs)(Central, Causeway Bay and Mong Kok), the average concentrations of major roadside air pollutants (including respirable suspended particulates (RSP), fine suspended particulates (FSP), nitrogen dioxide (NO₂) and sulphur dioxide (SO₂)) have dropped by 32%, 32%, 32% and 36% respectively from 2013 to 2018. This reflects that the air quality improvement measures implemented in recent years have been effective. Nevertheless, Hong Kong is small in size. There are different air pollution sources and vehicles are running around in different districts. Other air quality improvement measures are also implemented in parallel. Therefore, assessing air pollutant concentrations within specific road sections cannot adequately reflect the importance and effectiveness of a particular improvement measure.

The concentrations of major roadside pollutants recorded at the roadside AQMSs from 2013 to 2018 are as follows.

Table 1: Annual average concentrations of pollutants recorded at the roadside AQMSs from 2013 to 2018

Air pollutants	2013	2014	2015	2016	2017	2018*	Change from 2013 to 2018
	Concentration unit (µg/m ³)						(%)
RSP	57	50	45	38	39	39	-32%
FSP	37	32	30	26	26	25	-32%
NO ₂	120	102	99	82	86	82	-32%
SO ₂	11	9	8	7	7	7	-36%

Remark: *The data for 2018 has yet to be validated.

- (b) According to the report submitted by the FBCs, the compliance rate of deploying low emission buses in the FBLEZs is over 99% currently. For instance, there were 624 230 bus trips passing through the 3 FBLEZs in December 2018, among which 622 650 bus trips were served by low emission buses with the compliance rate of

99.7%. In case of situations such as traffic congestion, vehicle breakdown and traffic accidents, FBCs may need to deploy non-low emission buses to operate in FBLEZs occasionally in order to maintain normal bus service. The bus deployment data provided by the FBCs for the last working day of December in 2018 is as follows.

Table 2: The type and number of franchised buses running through the 3 FBLEZs

Location of FBLEZs	Bus type	The Kowloon Motor Bus Company (1933) Limited (KMB)	Citybus Limited (CTB)	New World First Bus Services Limited (NWFB)
Causeway Bay (Yee Wo Street)	Euro II and III buses retrofitted with SCRs and diesel particulate filters	15	3	11
	Euro IV	0	14	14
	Euro V	373	455	230
	Euro VI	0	15	27
	Electric bus	0	2	0
	Total	388	489	282
Central (junction of Des Voeux Road Central and Pedder Street)	Euro II and III buses retrofitted with SCRs and diesel particulate filters	12	2	19
	Euro IV	0	15	8
	Euro V	511	470	210
	Euro VI	0	19	23
	Electric bus	0	0	0
	Total	523	506	260
Mong Kok (junction of Nathan Road and Lai Chi Kok Road)	Euro II and III buses retrofitted with SCRs and diesel particulate filters	30	0	12
	Euro IV	17	5	17
	Euro V	906	211	137
	Euro VI	3	12	13
	Electric bus	0	0	0
	Total	956	228	179

Remark: The above figures are the bus deployment data provided by the FBCs for the last working day of December 2018. The compliance rate is based on the number of bus trips. Some low emission buses operate in more than 1 FBLEZs.

- (c) and (d) As there are more and more Euro V or Euro VI buses in the franchised bus fleets, the Government is now discussing with the FBCs on the tightening of the requirement of the FBLEZs with a view to requiring the FBCs to deploy buses meeting Euro V and above standards in the FBLEZs as soon as practicable.

Apart from setting up the FBLEZs, the Government has also implemented various vehicle emission control measures in recent years, including adopting an incentive-cum-regulatory approach to progressively phase out about 82 000 pre-Euro IV diesel commercial vehicles (DCVs) on a mandatory basis by the end of 2019; retrofitting of Euro II and Euro III buses with SCRs; and deploying roadside remote sensing equipment to identify liquefied petroleum gas and petrol vehicles emitting excessively to control the emissions from these vehicles so as to improve the overall roadside air quality.

The concentrations of major air pollutants recorded at these 3 roadside AQMSs have decreased by about 30% from 2013 to 2018, indicating that the measures implemented in recent years have been effective. Despite these improvements, the roadside NO₂ concentration is still at a relatively high level. The Government will strive to cope with this major challenge. The Government plans to implement the following new measures to further reduce the air pollutants emitted from vehicles.

- After the completion of the scheme for phasing out pre-Euro IV DCVs by the end of 2019, we plan to launch an incentive-cum-regulatory programme to progressively phase out Euro IV DCVs by the end of 2023;
- Plan to fully subsidise the FBCs to conduct a trial to retrofit about 60 Euro IV and V double-deck diesel buses of the dominant bus models with enhanced SCR systems so as to establish its technical feasibility, and to confirm the emission reduction performance (i.e. the target is to upgrade the performance to Euro VI level) of the enhanced SCR systems from different suppliers under the local road conditions and operation conditions. Subject to the success of the trial, we will consider to fully subsidise FBCs to retrofit eligible Euro IV and V double-deck diesel buses (bus models passing the trial) with enhanced SCR systems;
- Prepare to tighten the emission standards of newly registered motorcycles to Euro IV in the second half of 2020 and to tighten the emission standards of newly registered light buses (design weight of more than 3.5 tonnes) and buses (design weight of not more than 9 tonnes) to Euro VI, On Board Diagnostics Phase C, starting from early 2021.
- Continue to encourage the public to use new energy vehicles in the hope that all newly registered private cars in Hong Kong will ultimately become new energy vehicles in the long run. As the first step, we may consider ceasing the first registration of diesel private cars in Hong Kong subject to consultation with stakeholders.

By the time the above new measures are fully implemented, particularly the scheme for phasing out Euro IV DCVs and the scheme for retrofitting Euro IV and V double-deck diesel buses with emission reduction devices, all DCVs in Hong Kong will be compliant with the Euro V or above emission standards and the vehicles in all districts of Hong Kong will be low emission vehicles. Therefore, we have no plan to set up additional high pollution restricted areas or extend the scope of restriction in the LEZs to cover other vehicle types.

- End -

CONTROLLING OFFICER'S REPLY

ENB302

(Question Serial No. 3857)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Bureau has told this Committee that there would be a reduction in emission of about 1 380 tonnes of nitrogen oxides and 80 tonnes of respirable suspended particulates in 2025 when all double-deck diesel franchised buses were replaced with double-deck electric buses in Hong Kong. Early in 2010, the Government said that “the ultimate policy objective is to have zero-emission buses running across the territory”. However, trials are currently conducted on only 30 single-deck electric buses. Does the Government have any specific timetable for promoting electrification of buses? If yes, what are the details? If no, what are the reasons?

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 4)

Reply:

The feasibility of deploying electric bus services throughout or in individual areas of Hong Kong depends very much on the maturity of development of electric bus technologies, their prices and suitability for use in Hong Kong. It is incumbent upon us to fully test and prove that the relevant technology is suitable for the local environment and the actual modus operandi of the public transport sector before introduction of electric buses on a large scale.

There are about 6 100 franchised buses in Hong Kong. About 95% of them are double-deckers and the remaining are single-deckers. The technology of double-deck electric buses is still developing and currently there are very few models available in the international arena. Furthermore, their passenger carrying capacity and operational efficiency still cannot meet the operational needs in Hong Kong (including long daily service hours, high peak passenger loadings, the need to tackle hilly terrains as well as intense air-conditioning demand in hot and humid summer). We will keep in view the technological development of double-deck electric buses and consider in due course conducting trials with the franchised bus companies in Hong Kong. Besides, the Environmental Protection Department (EPD) is now working with the two franchised bus companies to preliminarily explore the feasibility of developing double-deck franchised electric buses suitable for local use.

The technology of single-deck electric buses is already used in many places, but the operation in Hong Kong is subject to further tests to ascertain the suitability for use in Hong Kong. The Government is providing \$180 million to fully subsidise 5 franchised bus companies to acquire 36 single-deck electric buses (including 28 battery-electric buses and 8 supercapacitor buses) for conducting a two-year trial to test out their operational performance, reliability as well as economic feasibility in local conditions. At present, 26 battery-electric buses and 6 supercapacitor buses have commenced operation.

The two-year trial of the first batch of 5 BYD battery-electric buses was completed in May 2018. The overall average daily driving range of the 5 buses during the trial was about 190 kilometers (km). However, under high ambient temperature demanding high loading of air-conditioning system, the driving range reduced to about 150 km, which could not meet the normal daily requirement of most of the single-deck bus routes of 200 to 300 km. Our initial view is that the wider use of single-deck battery-electric buses in Hong Kong will hinge on the following two factors:

- (i) whether the battery capacity of single-deck battery-electric bus could eventually be substantially increased, enabling it to travel about 300 km a day after a full charge; and/or
- (ii) whether there is adequate space and power capacity at the existing bus termini and public transport interchanges for the installation of charging facilities for top-up charging of the single-deck battery-electric buses in daytime, and whether the mode of daytime charging can cope with the high operation frequency of bus service in Hong Kong.

As for single-deck supercapacitor buses, they are characterised by fast charging and can travel about 20-30 km after 20 minutes of a full charge, and are thus more suitable for short routes. However, charging facilities at bus stops and/or bus termini would be required for timely re-charging, which takes about 6-10 minutes each time. Whether the supercapacitor buses can be further promoted in Hong Kong depends on the availability of suitable short routes run by single-deck buses and whether the public transport interchanges or bus stops that these routes pass through can provide adequate space and power capacity for the installation of top-up charging facilities.

The trial programme of single-deck electric buses is still in progress. To effectively monitor and assess the operational efficiency and performance of single-deck electric buses, we have set up a task force, comprising representatives from the relevant franchised bus companies, the EPD and the Transport Department, as well as local academics. After completion of the trials and assessment of the trial results, the Government will promote wider use of single-deck electric buses by the franchised bus companies, taking into account affordability of the franchised bus companies and passengers.

- End -

CONTROLLING OFFICER'S REPLY

ENB303

(Question Serial No. 3858)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Steering Committee on the Promotion of Electric Vehicles (the Steering Committee) led by the Financial Secretary was set up by the Government in April 2009 to study and promote the use of electric vehicles. Please set out in tabular form various manpower expenditures involved, the establishment, number of meetings convened, relevant agendas and minutes of meeting each year; policies and measures implemented, as well as a breakdown of the expenditure for and the effectiveness of the implementation of the measures since the establishment of the Steering Committee.

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 5)

Reply:

The Steering Committee on the Promotion of Electric Vehicles (the Committee), established in 2009 and chaired by the Financial Secretary, advises the Government on strategies and initiatives in promoting the use of electric vehicles (EVs). The manpower and expenditure supporting the Committee's work are absorbed by the Environment Bureau and the Environmental Protection Department (EPD) with existing resources. There is no separate breakdown of the expenditure in this regard.

So far the Committee has convened a total of 19 meetings. Agendas discussed include measures to facilitate the installation and enhancement of charging facilities, the setting up of the Pilot Green Transport Fund to test out green transport technologies, promotion of the use of EVs in public transport, government procurement of EVs, measures to encourage the public and the transport sectors to purchase or try out EVs, etc.

To encourage frank and open discussion, the Committee's meetings are conducted confidentially. The minutes of meetings are not public information. Prior to the formulation of measures to promote the use of EVs, the Government will consider various factors including the Committee's advice.

The strategies and measures discussed by the Committee and the Government's progress and expenditure on implementing relevant measures are as follows:

Strategies discussed by the Committee	Government's progress on implementing relevant measures	Details of expenditure
Facilitation of the installation and enhancement of charging facilities including technical support	The Government decided in 2012 to first install 500 EV chargers at the government car parks managed by the Transport Department (TD) and the Government Property Agency (GPA) and continue to install and enhance government charging facilities subsequently.	The EPD has borne the costs of the installation and enhancement of government charging facilities in the government car parks managed by the TD and the GPA and installation of medium charging posts at outdoor car parks since 2012, involving the expenditure of about \$12.31 million.
The setting up of the Pilot Green Transport Fund to encourage the testing of green innovative transport technologies	A \$300 million Pilot Green Transport Fund (the Fund) has been put in place since 2011 to encourage the public transport sectors, goods vehicle operators and non-profit-making organisations to test out green innovative transport technologies (including electric commercial vehicles). The Government also aims to complete the review on the Fund within 2019, with a view to further facilitating the wider use of green innovative transport technologies by the transport sectors.	As at the end of February 2019, the Fund has approved 139 trials, amounting to a subsidy of about \$139 million.
Promotion of the use of EVs in public transport	The Government is fully subsidising the franchised bus companies (FBCs) to acquire 36 single-deck electric buses (including 28 battery-electric buses and 8 supercapacitor buses) and related charging facilities for trial run on different routes to assess their operational efficiency and performance in local conditions. Currently, 26 battery-electric buses and 6 supercapacitor buses have commenced the two-year trials. The FBCs will arrange the remaining electric buses to commence operation progressively.	The Government has allocated \$180 million for this measure.

Strategies discussed by the Committee	Government's progress on implementing relevant measures	Details of expenditure
Government procurement of more EVs	Having taken into account the operational needs of the departments and the supply of EV models in the market, the Government has taken the lead to adopt more EVs since 2009. As at the end of February 2019, there were 252 EVs in the government fleet.	Since 2008, the Government has procured a total of 307 EVs, involving the expenditure of about \$87.3 million.
Provision of financial incentives to promote the use of EVs	The Government has waived the first registration tax (FRT) ¹ for EVs since 1994; and allowed enterprises which procure EVs to have full profit tax deduction for the capital expenditure on the vehicles in the first year of procurement since 2010.	Regarding the new arrangement of FRT concessions for electric private cars announced in the 2017-18 Budget and the "One-for-One Replacement" scheme implemented from 28 February 2018 to 31 March 2021, the TD has been allocated additional resources (2 time-limited Non-Civil Service Contract posts) to undertake the additional work involved. The expenditure incurred was about \$210,000 in 2017-18 and 2018-19 respectively.
Organisation of the International Competition on Second Life for Retired Batteries from Electric Vehicles	The International Competition on Second Life for Retired Batteries from Electric Vehicles was organised in June 2017.	The organisation of the International Competition on Second Life for Retired Batteries from Electric Vehicles and other relevant seminars and exhibitions involved a total expenditure of about \$2.46 million.

Strategies discussed by the Committee	Government's progress on implementing relevant measures	Details of expenditure
Promotion and publicity	The Government has organised a number of promotion and publicity activities since 2009. The EPD also established in 2011 a dedicated team and a service hotline to provide information and technical support on installation of charging facilities. Besides, to encourage existing private housing estates to install EV charging facilities, the EPD organised 5 seminars in the past 5 years to encourage building owners, property management companies and owners' corporations to support installation of EV charging facilities in existing buildings. The Government will continue to strengthen its efforts in communication, publicity and education, and provide technical assistance to relevant stakeholders regarding the installation of EV charging facilities.	Various manpower and expenditures involved in the relevant measures each year are absorbed by the existing resources of the EPD. There is no separate breakdown of the expenditure in this regard.

¹ The current FRT concession arrangements for EVs are as follows:

- a) Electric commercial vehicles (e-CVs) (including goods vehicles, buses, light buses, taxis and special purpose vehicles), electric motor cycles and electric motor tricycles: their FRT continues to be waived in full from 1 April 2018 to 31 March 2021;
- b) Electric private cars (e-PCs): a tiered structure is implemented -
 - i) except for eligible PC owners (see (b)(ii) below), FRT for e-PCs continues to be waived up to \$97,500 from 1 April 2018 to 31 March 2021, as at present.
 - ii) a "One-for-One Replacement" Scheme is launched from 28 February 2018 to 31 March 2021 (both days inclusive), allowing PC owners who arrange to scrap and de-register their own eligible old PC (PC with an internal combustion engine or e-PC) and then first register a new e-PC to enjoy a higher FRT concession up to \$250,000.

- End -

CONTROLLING OFFICER'S REPLY

ENB304

(Question Serial No. 3862)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Government encourages franchised bus companies to deploy environment-friendly buses at busy corridors and supports the Environmental Protection Department (EPD) to carry out a trial programme of electric buses. Would the Administration advise this Committee on the following:

(a) After the end of the two-year trial, does the Government have plans to subsidise bus companies to purchase more electric buses again in order to achieve the objective of complete electrification of buses? If yes, what are the details? If not, what are the reasons?

(b) Further to the above question, if the trial is continued, based on what criteria will the Government make a decision to subsidise bus companies to promote electrification of buses? Is affordability of the franchised bus companies and passengers the prime consideration when the Government makes the decision? What are the remaining factors that will be taken into consideration?

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 15)

Reply:

The feasibility of deploying electric bus services throughout or in individual areas of Hong Kong depends very much on the maturity of development of electric bus technologies, their prices and suitability for use in Hong Kong. It is incumbent upon us to fully test and prove that the relevant technology is suitable for the local environment and the actual modus operandi of the public transport sector before introduction of electric buses on a large scale.

There are about 6 100 franchised buses in Hong Kong. About 95% of them are double-deckers and the remaining are single-deckers. The technology of double-deck electric buses is still developing and currently there are very few models available in the international arena. Furthermore, their passenger carrying capacity and operational efficiency still cannot meet the operational needs in Hong Kong (including long daily service hours, high peak passenger loadings, the need to tackle hilly terrains as well as

intense air-conditioning demand in hot and humid summer). We will keep in view the technological development of double-deck electric buses and consider in due course conducting trials with the franchised bus companies in Hong Kong. Besides, the Environmental Protection Department (EPD) is now working with the two franchised bus companies to preliminarily explore the feasibility of developing double-deck franchised electric buses suitable for local use.

The technology of single-deck electric buses is being used in many places, but the operation of these buses in Hong Kong is subject to further tests to ascertain the suitability for use in Hong Kong. The Government is providing \$180 million to fully subsidise 5 franchised bus companies to acquire 36 single-deck electric buses (including 28 battery-electric buses and 8 supercapacitor buses) for conducting a two-year trial to test out their operational performance, reliability as well as economic feasibility in local conditions. At present, 26 battery-electric buses and 6 supercapacitor buses have commenced operation.

The two-year trial of the first batch of 5 BYD battery-electric buses was completed in May 2018. The overall average daily driving range of the 5 buses during the trial was about 190 kilometers (km). However, under high ambient temperature demanding high loading of air-conditioning system, the driving range reduced to about 150 km, which could not meet the normal daily requirement of most of the single-deck bus routes of 200 to 300 km. Our initial view is that the wider use of single-deck battery-electric buses in Hong Kong will hinge on the following two factors:

- (i) whether the battery capacity of single-deck battery-electric bus could eventually be substantially increased, enabling it to travel about 300 km a day after a full charge; and/or
- (ii) whether there is adequate space and power capacity at the existing bus termini and public transport interchanges for the installation of charging facilities for top-up charging of the single-deck battery-electric buses in daytime, and whether the mode of daytime charging can cope with the high operation frequency of bus service in Hong Kong.

As for single-deck supercapacitor buses, they are characterised by fast charging and can travel about 20-30 km after 20 minutes of a full charge, and are thus more suitable for short routes. However, charging facilities at bus stops and/or bus termini would be required for timely re-charging, which takes about 6-10 minutes each time. Whether the supercapacitor buses can be further promoted in Hong Kong depends on the availability of suitable short routes run by single-deck buses and whether the public transport interchanges or bus stops that these routes pass through can provide adequate space and power capacity for the installation of top-up charging facilities.

The trial programme of single-deck electric buses is still in progress. To effectively monitor and assess the operational efficiency and performance of single-deck electric buses, we have set up a task force, comprising representatives from the relevant franchised bus companies, the EPD and the Transport Department, as well as local academics. After completion of the trials and assessment of the trial results, the Government will promote wider use of single-deck electric buses by the franchised bus companies, taking into account affordability of the franchised bus companies and passengers.

- End -

CONTROLLING OFFICER'S REPLY

ENB305

(Question Serial No. 3863)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Would the Government please tabulate by emission standards the number of registered private cars, their year of first registration and countries of origin as at 31 December 2018?

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 17)

Reply:

According to the information provided by the Transport Department, the information on the number of registered private cars as at 31 December 2018 is set out at Annex.

The number of registered pre-Euro private cars by year of first registration and country of origin as at 31 December 2018

Year of first registration	Country of origin													Sub-total
	Australia	Belgium	France	Germany	Italy	Japan	Korea	Netherlands	New Zealand	South Africa	Sweden	UK	USA	
1950	0	0	0	0	0	0	0	0	0	0	0	1	0	1
1952	0	0	0	0	0	0	0	0	0	0	0	3	0	3
1953	0	0	0	0	0	0	0	0	0	0	0	1	0	1
1954	0	0	0	1	0	0	0	0	0	0	0	0	0	1
1958	0	0	0	2	0	0	0	0	0	0	0	0	0	2
1960	0	0	0	1	0	0	0	0	0	0	0	1	0	2
1961	0	0	0	0	0	0	0	0	0	0	0	4	0	4
1962	0	0	0	2	0	0	0	0	0	0	0	2	0	4
1963	0	0	0	3	0	0	0	0	0	0	0	0	0	3
1964	0	0	0	2	0	0	0	0	0	0	0	1	0	3
1965	0	0	0	2	0	0	0	0	0	0	0	3	1	6
1966	0	0	0	3	1	0	0	0	0	0	1	0	0	5
1967	0	0	0	4	1	0	0	0	0	0	0	6	1	12
1968	0	0	0	6	0	0	0	0	0	0	0	3	0	9
1969	0	0	0	9	1	0	0	0	0	0	1	6	0	17
1970	0	0	0	22	2	0	0	0	0	0	0	16	0	40
1971	1	0	0	23	0	0	0	0	0	0	0	5	0	29
1972	1	0	1	27	6	0	0	0	0	0	1	14	0	50
1973	2	0	0	47	3	2	0	0	0	0	0	26	1	81
1974	1	0	0	18	3	0	0	0	0	0	0	21	0	43
1975	1	0	0	14	2	2	0	0	0	0	0	15	0	34
1976	0	0	1	15	1	8	0	0	0	0	0	20	0	45
1977	0	0	0	18	4	13	0	0	0	0	0	25	1	61
1978	3	0	0	27	2	13	0	0	0	0	1	11	0	57
1979	0	0	1	28	4	4	0	0	0	0	0	26	1	64
1980	0	0	0	36	2	18	0	0	0	0	0	35	2	93
1981	2	0	1	47	4	23	0	0	0	0	1	25	1	104

Year of first registration	Country of origin													Sub-total
	Australia	Belgium	France	Germany	Italy	Japan	Korea	Netherlands	New Zealand	South Africa	Sweden	UK	USA	
1982	0	0	0	49	2	13	0	0	0	0	0	14	0	78
1983	0	0	0	18	0	14	0	0	0	0	0	1	0	33
1984	0	0	0	17	6	16	0	0	0	0	0	5	1	45
1985	0	0	0	39	11	25	0	0	0	0	0	11	0	86
1986	0	1	0	67	12	65	0	0	0	2	0	21	0	168
1987	0	3	2	71	15	73	0	0	0	1	0	28	1	194
1988	0	2	1	107	10	122	0	0	0	0	2	29	0	273
1989	0	2	2	173	10	194	0	0	1	0	6	31	1	420
1990	0	1	2	162	9	313	0	0	0	0	3	36	0	526
1991	0	1	5	222	21	481	0	0	0	0	9	53	2	794
1992	0	0	4	270	11	431	0	0	0	0	22	39	1	778
1993	2	1	2	343	46	653	1	0	0	0	15	89	0	1 152
1994	0	5	2	631	46	768	0	1	0	0	13	92	1	1 559
1995	1	8	0	210	16	229	0	0	0	0	4	23	1	492
Total													7 372	

The number of registered Euro I private cars by year of first registration and country of origin as at 31 December 2018

Year of first registration	Country of origin											Sub-total
	Belgium	France	Germany	Italy	Japan	Korea	Mexico	Spain	Sweden	UK	USA	
1995	7	1	330	29	545	0	0	0	4	80	1	997
1996	3	2	496	63	994	3	8	1	11	110	3	1 694
1997	1	1	197	16	667	2	1	0	3	39	22	949
1998	0	0	0	0	54	0	0	0	0	1	0	55
Total											3 695	

The number of registered Euro II private cars by year of first registration and country of origin as at 31 December 2018

Year of first registration	Country of origin											
	Australia	Belgium	Denmark	France	Germany	Italy	Japan	Korea	Malaysia	Mexico	Netherlands	Portugal
1997	1	10	0	6	701	55	2 922	4	0	2	0	0
1998	0	6	0	12	950	45	3 930	2	0	2	1	0
1999	0	2	1	5	954	38	5 167	4	7	1	12	2
2000	0	34	0	55	1 854	63	7 789	19	1	35	26	0

Year of first registration	Country of origin							Sub-total
	Singapore	South Africa	Spain	Sweden	Thailand	UK	USA	
1997	1	0	2	3	0	126	114	3 947
1998	0	0	0	34	28	83	107	5 200
1999	0	40	1	21	0	81	128	6 464
2000	0	253	10	15	0	142	167	10 463
Total							26 074	

The number of registered Euro III private cars by year of first registration and country of origin as at 31 December 2018

Year of first registration	Country of origin											
	Australia	Austria	Belgium	China	Finland	France	Germany	Italy	Japan	Korea	Malaysia	Mexico
2001	0	0	28	0	13	98	2 081	94	10 134	10	1	31
2002	0	0	35	0	36	105	2 253	95	11 086	20	1	13
2003	1	0	38	0	32	97	2 859	82	9 096	59	1	32
2004	0	114	80	1	11	94	3 794	112	12 824	194	0	39
2005	0	130	115	0	81	110	4 134	125	13 243	402	1	24

Year of first registration	Country of origin								Sub-total
	Netherlands	Portugal	Spain	South Africa	Sweden	Thailand	UK	USA	
2001	30	0	20	656	23	8	156	181	13 564
2002	70	2	36	644	35	7	385	299	15 122
2003	26	2	41	503	53	188	492	212	13 814
2004	4	2	33	918	161	286	716	313	19 696
2005	93	0	19	1 434	163	260	768	223	21 325
Total									83 521

The number of registered Euro IV private cars by year of first registration and country of origin as at 31 December 2018

Year of first registration	Country of origin												
	Australia	Austria	Belgium	Canada	China	Finland	France	Germany	Greece	India	Italy	Japan	Korea
2006	0	103	68	0	0	154	107	4 711	0	0	146	14 791	264
2007	2	73	107	1	0	165	138	6 401	0	0	328	19 230	176
2008	0	46	75	0	1	126	126	7 493	0	0	354	20 686	113
2009	6	13	81	1	0	79	91	8 236	1	11	449	14 919	82
2010	3	80	97	0	2	83	40	12 718	0	23	394	21 065	182
2011	2	410	76	0	8	27	192	14 422	0	8	442	20 347	219
2012	2	175	45	0	5	1	71	5 428	0	1	336	8 067	181

Year of first registration	Country of origin											Sub-total	
	Malaysia	Mexico	Netherlands	Poland	New Zealand	South Africa	Spain	Sweden	Thailand	UK	USA		
2006	0	71	66	0	0	1 503	25	175	159	720	417	23 480	
2007	1	75	38	0	0	1 206	21	309	126	893	609	29 899	
2008	0	62	0	31	1	1 036	17	252	0	740	948	32 107	
2009	0	11	0	48	0	667	27	262	0	663	772	26 419	
2010	0	12	0	0	0	820	22	311	2	1 078	900	37 832	
2011	0	190	0	143	0	876	57	299	71	1 208	1059	40 056	
2012	0	126	0	105	0	140	37	106	49	643	291	15 809	
												Total	205 602

The number of registered Euro V private cars by year of first registration and country of origin as at 31 December 2018 (Note 1)

Year of first registration	Country of origin												
	Australia	Austria	Belgium	Brazil	China	Czech	Finland	France	Germany	Hungary	India	Italy	Japan
2012	3	345	184	1	2	0	0	158	9 390	0	0	384	12 103
2013	0	530	317	0	5	22	168	181	16 158	83	0	476	20 376
2014	0	387	337	0	2	45	496	161	13 880	1 316	0	508	22 374
2015	1	248	224	0	0	0	497	75	13 058	1 600	0	594	24 347
2016	1	161	188	0	4	0	265	86	9 940	669	1	387	19 129
2017	0	25	93	0	4	0	123	120	6 295	212	0	316	9 262
2018	0	0	0	0	0	0	0	0	1	0	0	0	0

Year of first registration	Country of origin										
	Korea	Malaysia	Mexico	Netherlands	Poland	Portugal	Singapore	Slovakia	Slovenia	South Africa	Spain
2012	310	0	535	0	68	0	0	0	0	625	42
2013	648	0	439	0	125	14	0	0	0	809	122
2014	706	1	228	3	112	259	0	254	0	625	580
2015	746	0	145	47	76	242	0	253	0	1 273	485
2016	846	0	41	58	62	234	1	349	16	1 039	627
2017	1 284	0	23	112	5	88	0	116	4	458	408
2018	241	0	0	0	0	0	0	0	0	0	22

Year of first registration	Country of origin						Sub-total
	Sweden	Switzerland	Thailand	Turkey	UK	USA	
2012	81	0	75	0	1 106	846	26 258
2013	139	0	85	0	1 531	1 472	43 700
2014	82	0	62	0	1 404	1 331	45 153
2015	96	1	74	7	1 715	1 486	47 290
2016	239	0	59	19	1 904	1 025	37 350
2017	132	0	2	15	1 028	848	20 973
2018	0	0	0	0	0	1	265
Total							220 989

Note 1: The number of vehicles includes Euro V private cars which met the specified requirements under the transitional arrangement and were approved to be first registered after the implementation of the new emission standards. (According to the established practice of tightening the exhaust emission standards of newly registered vehicles in the past, the Environmental Protection Department will provide a transitional arrangement under which car dealers can process the Euro V private cars (unsold vehicles) which have arrived Hong Kong but have not yet been first registered before the implementation of new emission standards.)

The number of registered Euro VI private cars by year of first registration and country of origin as at 31 December 2018

Year of first registration	Country of origin												
	Austria	Belgium	China	Finland	France	Germany	Netherlands	Hungary	Italy	Japan	Korea	Mexico	Poland
2017	46	46	6	131	24	4 489	122	226	169	10 183	295	167	15
2018	90	164	52	40	61	9 920	289	423	444	22 500	966	517	12

Year of first registration	Country of origin												Sub-total
	Portugal	Slovakia	Slovenia	South Africa	Spain	Sweden	Thailand	Turkey	UK	USA	Australia	Malaysia	
2017	71	92	25	541	122	246	70	6	900	279	0	0	18 271
2018	203	457	23	783	342	393	258	22	2 014	1 102	1	3	41 079
Total													59 350

- End -

CONTROLLING OFFICER'S REPLY

ENB306

(Question Serial No. 3864)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the air quality monitoring network, please advise this Committee on the following:

(a) The Government will complete the installation of 2 additional air quality monitoring stations (AQMSs) within this year. What are their respective locations, details of progress, breakdown of the expenditure involved and expected completion date? If the completion dates for the AQMSs have to be deferred, what are the reasons? What is the expenditure to be involved?

(b) Using Hong Kong's Air Quality Objectives (AQOs) and the World Health Organisation's (WHO) Air Quality Guidelines separately for comparison, please set out in tabular form the respective compliance status, numbers of exceedances and discrepancies in exceedance data of the various types of air pollutants recorded at various AQMSs in Hong Kong throughout the year in 2018;

(c) The distribution (in days) and percentage of different categories of the Air Quality Health Index (AQHI) recorded at various AQMSs in Hong Kong throughout the year in 2018.

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 18)

Reply:

(a) The Environmental Protection Department (EPD) will set up air quality monitoring stations (AQMSs) on the rooftops of Aberdeen Tennis and Squash Centre in Southern District and Po Wing Road Sports Centre in North District. This project is in progress as scheduled. At present, we are conducting tender exercises for the construction works according to the detailed design of the AQMSs. The construction works for the two AQMSs will start in mid-2019 and the AQMSs are expected to commence trial run at the end of this year/early next year. The costs for designing and constructing the

two AQMSs and purchasing air monitoring equipment amount to about \$14 million, and the estimated annual operating cost is about \$900,000 in total.

- (b) The World Health Organisation (WHO)'s "Air Quality Guidelines" (WHO Guidelines) have promulgated a set of "ultimate targets" and "interim targets" (ITs) for various key air pollutants which enable governments to, having regard to their local circumstances, progressively tighten their air quality standards through adopting the ITs, and meet the WHO "ultimate targets" eventually. The Guidelines explicitly state that the air quality standards set in each country will vary according to specific approaches to balancing risks to health, technological feasibility, economic considerations and other political and social factors. At present, no country has fully adopted the WHO "ultimate targets" as its statutory air quality standards. Half of our Air Quality Objectives (AQOs) have adopted the "ultimate targets" as specified in the WHO Guidelines, with the rest (including ozone (O₃) (8-hour) and sulphur dioxide (SO₂) (24-hour)) pitching at the WHO ITs.

According to the preliminary data recorded at various AQMSs by the EPD in 2018, the concentrations of respirable suspended particulates (RSP), fine suspended particulates (FSP) and sulphur dioxide (SO₂) all met the relevant AQOs. Although the concentrations of nitrogen dioxide (NO₂) recorded at some AQMSs in 2018 still exceeded the concentration limit, the annual average concentrations of ambient and roadside NO₂ have dropped by about 30% respectively from 2013 to 2018, indicating that the emission control measures implemented in recent years are effective. As for ozone (O₃), apart from the influence of regional photochemical smog, a reduction of local vehicular emissions of nitric oxide (NO) has led to less NO to react with and titrate O₃, resulting in an increase of O₃ level. The concentration levels of O₃ recorded at some AQMSs in 2018 still exceeded the concentration limit. The compliance status, numbers of exceedances and relevant data of the air pollutants recorded at various AQMSs in 2018 using Hong Kong's AQOs and the "ultimate targets" in the WHO Guidelines for comparison are set out at Annex 1.

- (c) The Government launched the Air Quality Health Index (AQHI) on 30 December 2013. On the whole, the total numbers of days (in percentage) with the health risk category of "High" or above level recorded at the general and roadside AQMSs in 2018 were 8.2% and 10.4% respectively, which were lower than the 14.1% and 26.2% in 2014. The distribution by the number of days and percentage of the daily highest health risk category recorded at various AQMSs in 2018 are set out at Annex 2.

Table 1: The annual average concentrations of RSP, FSP and NO₂ recorded at various AQMSs and the long-term AQOs and WHO's Air Quality Guidelines (WHO AQG) compliance status in 2018

Long-term (annual) AQOs ^{Note 1}	RSP			FSP			NO ₂		
	Concentration limit (µg/m ³)	AQOs (WHO IT-2)	WHO AQG	Concentration limit (µg/m ³)	AQOs (WHO IT-1)	WHO AQG	Concentration limit (µg/m ³)	AQOs (WHO AQG)	
		50	20		35	10		40(40)	
Number of exceedances allowed	Not applicable								
AQMS	Annual average concentration in 2018 ^{Note 2}	Compliance with the standard? (Yes/No)		Annual average concentration in 2018 ^{Note 2}	Compliance with the standard? (Yes/No)		Annual average concentration in 2018 ^{Note 2}	Compliance with the standard? (Yes/No)	
General AQMS	Central/Western	34	Yes	No	21	Yes	No	39	Yes
	Eastern	33	Yes	No	19	Yes	No	39	Yes
	Kwun Tong	38	Yes	No	22	Yes	No	43	No
	Sham Shui Po	32	Yes	No	21	Yes	No	49	No
	Kwai Chung	32	Yes	No	20	Yes	No	55	No
	Tsuen Wan	30	Yes	No	20	Yes	No	45	No
	Tseung Kwan O	28	Yes	No	15	Yes	No	28	Yes
	Yuen Long	37	Yes	No	20	Yes	No	43	No
	Tuen Mun	42	Yes	No	26	Yes	No	47	No
	Tung Chung	31	Yes	No	18	Yes	No	33	Yes
	Tai Po	31	Yes	No	19	Yes	No	36	Yes
	Sha Tin	32	Yes	No	19	Yes	No	35	Yes
	Tap Mun	31	Yes	No	17	Yes	No	11	Yes
Roadside AQMS	Causeway Bay	46	Yes	No	30	Yes	No	87	No
	Central	34	Yes	No	21	Yes	No	80	No
	Mong Kok	36	Yes	No	24	Yes	No	79	No

Note 1: There are no long-term AQOs for SO₂ and O₃.

Note 2: The data of 2018 are not yet validated.

Table 2: The short-term concentrations of RSP, FSP and NO₂ recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2018

Short-term AQOs	RSP		FSP		NO ₂		
	AQOs (WHO IT-2)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	AQOs (WHO AQG)	WHO AQG Note 1	
Average time	24-hour	24-hour	24-hour	24-hour	1-hour	1-hour	
Concentration limit (µg/m ³)	100	50	75	25	200	200	
Number of exceedances allowed	9	Not specified	9	Not specified	18	Not specified	
AQMS	Short-term concentrations in 2018 ^{Note 2} (µg/m ³), number of exceedances (in brackets) and compliance with the standard? (Yes/No)						
General AQMS	Central/Western	70(2)/Yes	-	47(2)/Yes	-	159(4)/Yes	-
	Eastern	68(1)/Yes	-	39(0)/Yes	-	128(0)/Yes	-
	Kwun Tong	78(2)/Yes	-	45(0)/Yes	-	178(11)/Yes	-
	Sham Shui Po	59(0)/Yes	-	41(0)/Yes	-	152(1)/Yes	-
	Kwai Chung	62(0)/Yes	-	38(0)/Yes	-	196(14)/Yes	-
	Tsuen Wan	71(2)/Yes	-	48(2)/Yes	-	181(9)/Yes	-
	Tseung Kwan O	53(0)/Yes	-	32(0)/Yes	-	135(0)/Yes	-
	Yuen Long	75(4)/Yes	-	46(1)/Yes	-	150(3)/Yes	-
	Tuen Mun	87(4)/Yes	-	53(2)/Yes	-	177(11)/Yes	-
	Tung Chung	73(2)/Yes	-	48(2)/Yes	-	156(7)/Yes	-
	Tai Po	69(0)/Yes	-	47(0)/Yes	-	125(0)/Yes	-
	Sha Tin	65(1)/Yes	-	40(0)/Yes	-	149(0)/Yes	-
Tap Mun	60(0)/Yes	-	32(0)/Yes	-	51(0)/Yes	-	
Roadside AQMS	Causeway Bay	82(1)/Yes	-	55(1)/Yes	-	277(148)/No	-
	Central	74(1)/Yes	-	50(1)/Yes	-	257(120)/No	-
	Mong Kok	73(2)/Yes	-	51(2)/Yes	-	243(48)/No	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimise the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term “AQG”.

Note 2: The short-term RSP and FSP concentrations under AQOs were the tenth highest level and the short-term NO₂ concentrations were the nineteenth highest level. The data of 2018 are not yet validated.

Table 3: The short-term concentrations of SO₂ and O₃ recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2018

Short-term AQOs	SO ₂		SO ₂		O ₃		
	AQOs (WHO AQG)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	AQOs (WHO IT-1)	WHO AQG Note 1	
Average time	10-minute	10-minute	24-hour	24-hour	8-hour	8-hour	
Concentration limit (µg/m ³)	500	500	125	20	160	100	
Number of exceedances allowed	3	Not specified	3	Not specified	9	Not specified	
AQMS	Short-term concentrations in 2018 ^{Note 2} (µg/m ³), number of exceedances (in brackets) and compliance with the standard? (Yes/No)						
General AQMS	Central/Western	135(0)/Yes	-	22(0)/Yes	-	164(11)/ No	-
	Eastern	123(0)/Yes	-	12(0)/Yes	-	161(10)/ No	-
	Kwun Tong	51(0)/Yes	-	12(0)/Yes	-	130(0)/Yes	-
	Sham Shui Po	98(0)/Yes	-	21(0)/Yes	-	147(5)/Yes	-
	Kwai Chung	134(0)/Yes	-	27(0)/Yes	-	133(1)/Yes	-
	Tsuen Wan	113(0)/Yes	-	21(0)/Yes	-	148(9)/Yes	-
	Tseung Kwan O	38(0)/Yes	-	13(0)/Yes	-	169(15)/No	-
	Yuen Long	52(0)/Yes	-	17(0)/Yes	-	162(10)/No	-
	Tuen Mun	94(0)/Yes	-	20(0)/Yes	-	173(18)/No	-
	Tung Chung	88(0)/Yes	-	19(0)/Yes	-	173(14)/No	-
	Tai Po	24(0)/Yes	-	8(0)/Yes	-	167(13)/No	-
	Sha Tin	76(0)/Yes	-	16(0)/Yes	-	182(17)/No	-
Tap Mun	29(0)/Yes	-	13(0)/Yes	-	184(20)/No	-	
Roadside AQMS	Causeway Bay	82(0)/Yes	-	19(0)/Yes	-	78(0)/Yes	-
	Central	101(0)/Yes	-	20(0)/Yes	-	96(0)/Yes	-
	Mong Kok	88(0)/Yes	-	19(0)/Yes	-	97(0)/Yes	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimise the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term SO₂ concentrations (10-minute and 24-hour) under AQOs were the fourth highest level and the short-term O₃ concentrations were the tenth highest level. The data of 2018 are not yet validated.

Table 4: The short-term concentrations of CO recorded at various AQMSs and the short-term AQOs and WHO AQG compliance status in 2018

Short-term AQOs	CO		CO		
	AQOs (WHO AQG)	WHO AQG ^{Note 1}	AQOs (WHO AQG)	WHO AQG ^{Note 1}	
Average time	1-hour	1-hour	8-hour	8-hour	
Concentration limit ($\mu\text{g}/\text{m}^3$)	30 000	30 000	10 000	10 000	
Number of exceedances allowed	0	Not specified	0	Not specified	
AQMS	Short-term concentrations in 2018 ^{Note 2} ($\mu\text{g}/\text{m}^3$), number of exceedances (in brackets) and compliance with the standard? (Yes/No)				
General AQMS	Central/ Western	//	//	//	//
	Eastern	//	//	//	//
	Kwun Tong	//	//	//	//
	Sham Shui Po	//	//	//	//
	Kwai Chung	//	//	//	//
	Tsuen Wan	1 680(0)/Yes	-	1 421(0)/Yes	-
	Tseung Kwan O	2 130(0)/Yes	-	1 838(0)/Yes	-
	Yuen Long	1 724(0)/Yes	-	1 575(0)/Yes	-
	Tuen Mun	1 900(0)/Yes	-	1 664(0)/Yes	-
	Tung Chung	1 780(0)/Yes	-	1 353(0)/Yes	-
	Tai Po	//	//	//	//
	Sha Tin	//	//	//	//
	Tap Mun	1 747(0)/Yes	-	1 151(0)/Yes	-
Roadside AQMS	Causeway Bay	2 610(0)/Yes	-	2 047(0)/Yes	-
	Central	2 330(0)/Yes	-	1 685(0)/Yes	-
	Mong Kok	2 340(0)/Yes	-	2 041(0)/Yes	-

Note 1: Chapter 8 of the WHO Guidelines states that “When the standards set are to be legally binding, criteria must be identified to determine compliance. This is quantified through the number of acceptable exceedances over a certain period of time. ...Compliance criteria are defined in each country in order to compare the most representative data with the standards, and to minimise the designation of non-compliance owing to uncontrollable circumstances such as extreme weather.” The Guidelines do not provide any recommendations on the number of acceptable exceedances and hence the pollutant concentrations recorded at each AQMS are not compared with the WHO’s short-term AQG.

Note 2: The short-term CO concentrations (1-hour and 8-hour) under AQOs were the first highest level. The data of 2018 are not yet validated.

“//” denotes CO was not measured at the AQMS.

Table 1: The distribution by number of days and percentage of the daily highest health risk category recorded at various AQMSs in 2018

Health Risk Category (AQHI)	Roadside AQMS			General AQMS												
	Cause-way Bay	Central	Mong Kok	Central / Western	Eastern	Kwun Tong	Sham Shui Po	Kwai Chung	Tsuen Wan	Tseung Kwan O	Yuen Long	Tuen Min	Tung Chung	Tai Po	Sha Tin	Tap Mun
Number of days																
Low (1 to 3)	31	90	82	125	112	103	130	116	128	120	125	111	142	133	119	114
Moderate (4 to 6)	292	236	250	213	226	245	211	223	208	224	198	203	181	202	218	214
High (7)	19	20	14	8	16	5	11	11	12	10	9	13	13	13	10	14
Very high (8 to 10)	21	17	16	17	10	11	11	11	13	10	27	32	24	16	17	8
Serious (10+)	2	2	3	2	1	1	2	4	4	1	6	6	5	1	1	1
Percentage																
Low (1 to 3)	8.5%	24.7%	22.5%	34.2%	30.7%	28.2%	35.6%	31.8%	35.1%	32.9%	34.2%	30.4%	38.9%	36.4%	32.6%	32.5%
Moderate (4 to 6)	80.0%	64.7%	68.5%	58.4%	61.9%	67.1%	57.8%	61.1%	57.0%	61.4%	54.2%	55.6%	49.6%	55.3%	59.7%	61.0%
High (7)	5.2%	5.5%	3.8%	2.2%	4.4%	1.4%	3.0%	3.0%	3.3%	2.7%	2.5%	3.6%	3.6%	3.6%	2.7%	4.0%
Very high (8 to 10)	5.8%	4.7%	4.4%	4.7%	2.7%	3.0%	3.0%	3.0%	3.6%	2.7%	7.4%	8.8%	6.6%	4.4%	4.7%	2.3%
Serious (10+)	0.5%	0.5%	0.8%	0.5%	0.3%	0.3%	0.5%	1.1%	1.1%	0.3%	1.6%	1.6%	1.4%	0.3%	0.3%	0.3%

- End -

CONTROLLING OFFICER'S REPLY

ENB307

(Question Serial No. 3865)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The 36 single-deck franchised electric buses subsidised by the Government have been put into service progressively since the end of 2015. Some of them have completed their trials while some will commence service this year. Please set out in tabular form the details of the reports on the trials of the 36 electric buses as at 1 March 2019, including the commencement dates of service, route numbers, brands and models, frequency and dates of maintenance with reasons, charging facilities and their locations, information on the electricity storage device and charging requirements, the fuel cost-effectiveness, as well as the monthly average number of on-road breakdowns, bus availability (in per cent) and emission benefits. For those electric buses that have not been put into service, please specify the franchised bus companies that own these buses and the reasons why they have not commenced service.

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 19)

Reply:

Electric buses do not have exhaust emissions. Successful replacement of conventional diesel franchised buses with electric buses in Hong Kong can improve roadside air quality. The Government is providing \$180 million to fully subsidise 5 franchised bus companies (including Kowloon Motor Bus Company (1933) Limited (KMB), Long Win Bus Company Limited (LWB), Citybus Limited (CTB), New World First Bus Services Limited (NWFB) and New Lantao Bus Company (1973) Limited (NLB)) to acquire 36 single-deck electric buses (including 28 battery-electric buses and 8 supercapacitor buses) to conduct a two-year trial to test out their operational performance, reliability as well as economic feasibility in local conditions.

At present, 26 battery-electric buses and 6 supercapacitor buses have commenced operation. The remaining 2 supercapacitor buses, which are planned to be deployed on Route 5M of KMB, will commence operation after KMB has reviewed the trial results of the first batch of 2 supercapacitor buses running on the same route. It is expected that they will

commence operation in the second half of 2019. As for the remaining 2 battery-electric buses of NLB, as the bus supplier whose tender had been accepted previously withdrew its offer, NLB has to conduct a re-tendering process. The re-tendering was completed in January 2019 and the 2 battery-electric buses are expected to commence operation by the end of 2019 at the earliest.

Details of the trial scheme and the operational performance are provided at Annex 1.

Trial of single-deck electric franchised buses**Table 1: Information of single-deck electric buses which commenced / completed the trials and the corresponding charging facilities (as at 30 September 2018)**

Number, model, manufacturer and origin of buses	Day of commencement of trial	Service route [origin and destination]	Location of charging facilities	Number of charging facilities and the site area (including parking space)	Information of electricity storage device and charging requirement	Monthly average number of on-road breakdowns ^[i] and bus availability (%) ^[ii]
KMB						
6 supercapacitor buses ^[iii] Model: JNP6122UC Manufacturer: China Youngman Automobile Group Company Limited (Youngman) Origin: China	Trials commenced in phases in March 2017 and November 2018	284 (4 buses) [Sha Tin Central - Ravana Garden (Circular)] Total distance of 5.7 km	Sha Tin Central Bus Terminus (for top up charging during operation)	2 (about 49 m ² each)	750 V / 200 A (DC) Supercapacitor Capacity of 53 kWh About 20 minutes for a full charge	0.1 time(s) 53%
			Shatin Depot (for overnight charging)	2 (one of them is under preparation) (about 49 m ² each)		
	The first 2 supercapacitor buses commenced trials in February 2019 ^[iii]	5M (2 buses) [Kai Tak (Tak Long Estate) - Kowloon Bay Railway Station (Circular)] Total distance of 6.6 km	Kai Tak Shing Kai Road Bus Stop (for top up charging during operation)	1 (about 49 m ² each)		Not applicable (2 supercapacitor buses have not yet commenced operation in September 2018)
			Kowloon Bay Bus Maintenance Depot (for overnight charging)	2 (one of them is under preparation) (about 49 m ² each)		

Notes:

[i] Breakdowns only include failure of passenger-carrying buses which necessitate passenger evacuation except those owing to accidents.

[ii] The outages unrelated to malfunctions (including inspections for Certificate of Road Worthiness/Certificate of Fitness, monthly inspections, routine maintenance/checking, cleaning, etc.) are excluded.

[iii] The remaining 2 supercapacitor buses are expected to commence operation in the second half of 2019

Number, model, manufacturer and origin of buses	Day of commencement of trial	Service route [origin and destination]	Location of charging facilities	Number of charging facilities and the site area (including parking space)	Information of electricity storage device and charging requirement	Monthly average number of on-road breakdowns and bus availability (%)
KMB						
10 battery-electric buses Model: K9R Manufacturer: BYD Auto Industry Company Limited (BYD) Origin: China	July 2017 ^[iv]	6C (2 buses) [Mei Foo - Kowloon City Ferry Pier] 10.2 km both for departure and return	Lai Chi Kok Bus Maintenance Depot	4 in Lai Chi Kok (about 44 m ² each)	380 V / 126A (AC) Lithium iron phosphate battery	0 time(s) 86.5%
	January 2018 ^[iv]	35A (2 buses) [Tsim Sha Tsui East - On Yam] 15.1 km both for departure and return	Yuet Lun Street Depot (Both depots support Routes 6C, 35A and 42A)	2 in Yuet Lun Street (about 44 m ² each)	Battery capacity of 324 kWh About 4 hours for a full charge	0 time(s) 84.9%
	September 2017 ^[iv]	42A (2 buses) [Jordan (To Wah Road) - Cheung Hang] 14.6 km for departure from Cheung Hang 14.4 km for departure from Jordan				0 time(s) 85.3%
	July 2017 ^[iv]	5C (2 buses) [Star Ferry Pier - Tsz Wan Shan (Central)] 10.8 km for departure from Tsz Wan Shan 11.2 km for departure from Star Ferry Pier	Kowloon Bay Bus Maintenance Depot	4 (about 44 m ² each)		0.1 time(s) 67%
	November 2017 ^[iv]	603 (2 buses) [Ping Tin - Central (Central Ferry Piers)]				0 time (s) 83.8%

Number, model, manufacturer and origin of buses	Day of commencement of trial	Service route [origin and destination]	Location of charging facilities	Number of charging facilities and the site area (including parking space)	Information of electricity storage device and charging requirement	Monthly average number of on-road breakdowns and bus availability (%)
		16.2 km for departure from Ping Tin 18.1 km for departure from Central				

Note:

[iv] Starting from 28 September 2018, the trial routes are adjusted. The current routes are 7M [Lok Fu - Chuk Yuen Estate (Circular)], 203C [Tai Hang Tung - Tsim Sha Tsui East (Mody Road)], 11D [Lok Fu - Kwun Tong Ferry] and 43M [Kwai Fong Station - Cheung Ching (Circular)].

Number, model, manufacturer and origin of buses	Day of commencement of trial	Service route [origin and destination]	Location of charging facilities	Number of charging facilities and the site area (including parking space)	Information of electricity storage device and charging requirement	Monthly average number of on-road breakdowns and bus availability (%)
LWB						
4 battery-electric buses Model: K9R Manufacturer: BYD Origin: China	July 2017	S64 (2 buses) [Tung Chung (Yat Tung Estate Public Transport Terminus) - Airport (Passenger Terminal Building) (Circular)] Total distance of 22.5 km	Siu Ho Wan Bus Maintenance Depot	4 (about 44 m ² each)	380 V / 126A (AC) Lithium iron phosphate battery Battery capacity of 324 kWh About 4 hours for a full charge	0 time(s) 73.4%
	February 2018	E31 (2 buses) [Tung Chung (Yat Tung Estate Public Transport Terminus) - Tsuen Wan (Discovery Park Bus Terminus)] 33.9 km for departure from Tsuen Wan 33.5 km for departure from Tung Chung				0 time(s) 50.8%

Number, model, manufacturer and origin of buses	Day of commencement of trial	Service route [origin and destination]	Location of charging facilities	Number of charging facilities and the site area (including parking space)	Information of electricity storage device and charging requirement	Monthly average number of on-road breakdowns and bus availability (%)
CTB						
6 battery-electric buses Model: K9R (3 buses) Manufacturer: BYD Origin: China ----- Model: LS-130-116 (3 buses) Manufacturer: Great Dragon International Corporation Limited (Great Dragon) Origin: China	The trial of 3 BYD buses commenced in December 2015 and completed in May 2018. 3 Great Dragon buses commenced the trial in June 2017. The current routes are different from the initial ones ^[v] .	11 (1 BYD and 1 Great Dragon) [Central (Central Ferry Piers) - Jardine's Lookout (Circular)] Total distance of 15.7 km	Chai Wan Depot	BYD: 3 (about 70 m ² each) Great Dragon: 3 (about 70 m ² each)	BYD: 380 V / 126A (AC) Lithium iron phosphate battery Battery capacity of 324 kWh Full charge for about 4 hours ----- Great Dragon: 700 V / 100A (DC) Lithium iron phosphate battery	BYD: 0.56 time(s) 75.9% Great Dragon: 0.69 time(s) 60.7%
		12 (1 BYD and 1 Great Dragon) [Central (Central Ferry Piers) - Robinson Road (Circular)] Total distance 7.5 of km		BYD: 0.04 time(s) 73.4% Great Dragon: 0.19 time(s) 70.4%		
		25A (1 BYD and 1 Great Dragon) [Wan Chai (Hong Kong Convention & Exhibition Centre Extension) - Braemar Hill (Circular)] Total distance of 11.4 km		BYD: 0.6 time(s) 77.5% Great Dragon: 0.69 time(s) 55.1%		

Note:

[v] Starting from 1 July 2018, Great Dragon battery-electric bus running on Route 12 is deployed to Route 25A.

Number, model, manufacturer and origin of buses	Day of commencement of trial	Service route [origin and destination]	Location of charging facilities	Number of charging facilities and the site area (including parking space)	Information of electricity storage device and charging requirement	Monthly average number of on-road breakdowns and bus availability (%)
NWFB						
4 battery-electric Buses Model: K9R (2 buses) Manufacturer: BYD Origin: China ----- Model: LS-130-116 (2 buses) Manufacturer: Great Dragon Origin: China	The trial of 2 BYD buses commenced in December 2015 and completed in May 2018. 2 Great Dragon buses commenced the trial in June 2017. The current routes are different from the initial ones ^[vi] .	78 (1 BYD and 1 Great Dragon) [Wong Chuk Hang Station - Wah Kwai Estate (Circular)] Total distance of 8.9 km	Wong Chuk Hang Depot	BYD: 1 (about 70 m ²) Great Dragon: 1 (about 70 m ²)	BYD: 380 V / 126A (AC) Lithium iron phosphate battery Battery capacity of 324 kWh	BYD: 0.16 time(s) 82.4% Great Dragon: 0.44 time(s) 56.8%
		81 (1 BYD and 1 Great Dragon) [Lai Tak Tsuen - Chai Wan (Hing Wah Estate)] 11.2 km for departure from Lai Tak Tsuen 10.5 km for departure from Hing Wah Estate	Chong Fu Road Depot	BYD: 1 (about 70 m ²) Great Dragon: 1 (about 70 m ²)	About 4 hours for a full charge ----- Great Dragon: 700 V / 100A (DC) Lithium iron phosphate battery Battery capacity of 315 kWh Full charge for about 4 hours	BYD: 0.4 time(s) 77.3% Great Dragon: 1.06 time(s) 39.5%

Note:

[vi] Starting from 1 July 2018, Great Dragon battery-electric bus running on Route 81 is deployed to Route 78.

Number, model, manufacturer and origin of buses	Day of commencement of trial	Service route [origin and destination]	Location of charging facilities	Number of charging facilities and the site area (including parking space)	Information of electricity storage device and charging requirement	Monthly average number of on-road breakdowns and bus availability (%)
NLB^[vii]						
2 battery-electric buses Model: K9R Manufacturer: BYD (2 buses) Origin: China	The trial commenced in July 2018	38 (2 buses) [Tung Chung (Yat Tung Estate Public Transport Interchange) - Tung Chung Station Bus Terminus (Circular)] Total distance of 4.2 km	Yat Tung Estate Public Transport Interchange	2 (about 37 m ² each)	380 V / 126A (AC) Lithium iron phosphate battery Battery capacity of 324 kWh About 4 hours for a full charge	0 time(s) 84.4%

Note:

[vii] The re-tendering process for the remaining 2 battery-electric buses was completed in January 2019 and they are expected to commence operation by the end of 2019 at the earliest.

Table 2: Summary of preliminary observations on the trial of single-deck electric buses (as at 30 September 2018)

Franchised bus company/ Type of electric bus/ Manufacturer	Number of buses undergoing or completed the trial (Number of buses under trial)	(a) Total mileage (km) ^[i]	(b) Average energy consumption rate (kWh/km)	(c) Emission benefit (NOx / PM10) ^[ii] (g/km)	(d) Average electricity cost (\$/km)	(e) Average number of on-road breakdowns / Month	(f) Daily bus availability (%)	(g) Projected driving range ^[iii] (km)
KMB / Supercapacitor Buses / China Youngman Automobile Group Company Limited	2 (8)	61 800	2.34	NOx: 2.59 PM ₁₀ : 0.11	2.84	0.1	53%	18
KMB / LWB / Battery-electric buses / BYD Auto Industry Company Limited (BYD)	14 (14)	83 600	1.25		1.55	0.01	75.9%	207
CTB / NWFB / Battery-electric buses / BYD ^[iv]	5 (5)	362 100	1.36		1.77	0.35	77.3%	191
CTB / NWFB / Battery-electric buses / Great Dragon International Corporation Limited	5 (5)	91 500	1.92		2.38	0.61	56.5%	115
NLB / Battery-electric buses / BYD	2 (2)	7 300	1.48		1.87	0	84.4%	175
NLB / Battery-electric buses ^[v]	0 (2)	Not Applicable						

Notes:

- i. From trial commencement to the end of September 2018.
- ii. NOx- Nitrogen oxides; PM10- Respirable suspended particulates
The emission reduction is based on the assumption that electric buses replaced the Euro V single-deck diesel buses running on the same routes. Emission from the power companies for the use of electric buses is not counted.
- iii. The projected driving range is calculated from usable battery capacity (80% of the highest battery capacity for Youngman and BYD, and 70% of the highest battery capacity for Great Dragon as recommended by the manufacturers) divided by average energy consumption rate.
- iv. The trial was completed in May 2018.
- v. The re-tendering process for the remaining 2 battery-electric buses was completed in January 2019 and they are expected to commence operation by the end of 2019 at the earliest.

- End -

CONTROLLING OFFICER'S REPLY**ENB308****(Question Serial No. 3866)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding roadside air quality, would the Administration advise this Committee on the following:

(a) Please set out respectively by emission standard, the number, age, emissions of various pollutants (sulphur dioxide (SO₂), nitrogen oxides (NO_x), respirable suspended particulates (RSP or PM₁₀), fine suspended particulates (FSP or PM_{2.5}), volatile organic compounds (VOC), carbon monoxide (CO) and ozone (O₃)) from buses owned by each franchised bus company and their percentage in total bus emissions as well as overall pollutant emissions in Hong Kong from 2013 to the end of 2018 and as at 1 March 2019;

(b) Please set out the respective numbers of each type of franchised buses which have been and have not yet been retrofitted with selective catalytic reduction devices (SCRs) in the table below.

	Euro II		Euro III		Euro IV		Euro V		Euro VI/hybrid/electric bus	
	Retrofitted with SCRs	Not yet retrofitted with SCRs	Retrofitted with SCRs	Not yet retrofitted with SCRs	Retrofitted with SCRs	Not yet retrofitted with SCRs	Retrofitted with SCRs	Not yet retrofitted with SCRs	Retrofitted with SCRs	Not yet retrofitted with SCRs
KMB										
Citybus										
NWFB										
LWB										
NLB										
Sub-total										
% in all buses										

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 20)

Reply:

(a) The numbers and average ages of licensed buses by vehicle emission standard owned by each franchised bus company in Hong Kong from 2013 to the end of 2018 are tabulated below:

Bus company	Category	End 2014	End 2015	End 2016	End 2017	End 2018
		Number of buses	Number of buses	Number of buses	Number of buses	Number of buses
The Kowloon Motor Bus Company (1933) Limited	Pre-Euro	0	0	0	0	0
	Euro I	161	0	0	0	0
	Euro II	1 546	1 157	705	395	113
	Euro III	1 097	1 097	1 096	1 092	1 039
	Euro IV	106	106	106	93	93
	Euro V	939	1 522	2 003	2 369	2 827
	Euro VI (including hybrid bus)	3	3	3	4	5
	Electric bus	0	3	3	14	17
	Sub-total	3 852	3 888	3 916	3 967	4 094
	Average age	11.0	9.3	8.1	7.5	6.9
Citybus Limited (Franchise for Hong Kong Island and Cross-Harbour Bus Network)	Pre-Euro	0	0	0	0	0
	Euro I	12	0	0	0	0
	Euro II	270	170	50	0	0
	Euro III	9	9	9	9	9
	Euro IV	28	28	28	23	24
	Euro V	460	550	672	698	679
	Euro VI (including hybrid bus)	2	2	2	2	27
	Electric bus	-	3	6	6	6
	Sub-total	781	762	767	738	745
	Average age	7.6	6.2	4.4	4.1	4.9
Citybus Limited (Franchise for the Airport and North Lantau Bus Network)	Pre-Euro	0	0	0	0	0
	Euro I	0	0	0	0	0
	Euro II	105	81	26	1	0
	Euro III	0	0	0	0	0
	Euro IV	0	0	0	0	0
	Euro V	71	101	153	205	221
	Euro VI (including hybrid bus)	0	0	0	0	12
	Electric bus	0	0	0	0	0
	Sub-total	176	182	179	206	233
	Average age	10.1	8.5	4.3	2.5	3.0

Bus company	Category	End 2014	End 2015	End 2016	End 2017	End 2018
		Number of buses	Number of buses	Number of buses	Number of buses	Number of buses

New World First Bus Services Limited	Pre-Euro	0	0	0	0	0
	Euro I	13	0	0	0	0
	Euro II	487	388	267	84	10
	Euro III	75	75	74	74	34
	Euro IV	38	38	38	38	38
	Euro V	97	216	307	496	512
	Euro VI (including hybrid bus)	1	1	1	6	64
	Electric bus	0	2	4	4	4
	Sub-total	711	720	691	702	662
	Average age	13.1	11.3	9.7	5.9	4.3
Long Win Bus Company Limited	Pre-Euro	0	0	0	0	0
	Euro I	0	0	0	0	0
	Euro II	46	31	1	0	0
	Euro III	18	18	18	18	17
	Euro IV	32	32	32	31	32
	Euro V	83	109	191	192	208
	Euro VI (including hybrid bus)	0	0	0	0	0
	Electric bus	0	0	0	4	4
	Sub-total	179	190	242	245	261
	Average age	6.7	5.9	3.3	4.1	4.8
New Lantao Bus Company (1973) Limited	Pre-Euro	0	0	0	0	0
	Euro I	0	0	0	0	0
	Euro II	2	2	0	0	0
	Euro III	61	54	38	31	17
	Euro IV	17	26	26	23	23
	Euro V	31	41	57	70	113
	Euro VI (including hybrid bus)	0	0	0	0	0
	Electric bus	0	0	0	0	2
	Sub-total	111	123	121	124	155
	Average age	7.5	7.6	7.4	7.8	5.9

The Environmental Protection Department (EPD) compiles the Hong Kong Air Pollutant Emission Inventory every year to analyse the distribution and trend of major emission sources in Hong Kong. The vehicle emission inventory for 2017 is still under compilation. Besides, as we have not estimated the emissions from franchised buses according to individual franchised bus companies, we are not able to provide the relevant emission data.

The estimated air pollutant emissions from franchised buses in Hong Kong in the 5 years from 2012 to 2016 are as follows:

Table 1: The percentage of emissions of nitrogen oxides (NO_x) from franchised buses in total emissions of NO_x in Hong Kong

Year	Nitrogen oxides (NO _x)(tonnes/percentage)(Note1)							
	Exhaust emission standard	Euro I	Euro II	Euro III	Euro IV	Euro V	Euro VI	Total
2012	Tonnes	1 100	2 800	1 300	110	240	<5	5 500
	Percentage in emissions of all franchised buses	19%	50%	24%	2%	4%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	1.0%	2.5%	1.2%	0.1%	0.2%	0.0%	4.9%
2013	Tonnes	620	2 500	1 300	110	390	<5	4 900
	Percentage in emissions of all franchised buses	13%	51%	26%	2%	8%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.6%	2.3%	1.1%	0.1%	0.4%	0.0%	4.4%
2014	Tonnes	210	2 400	1 200	110	530	<5	4 500
	Percentage in emissions of all franchised buses	5%	53%	28%	2%	12%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.2%	2.2%	1.2%	0.1%	0.5%	0.0%	4.1%
2015	Tonnes	<5	1 600	1 200	110	780	<5	3 600
	Percentage in emissions of all franchised buses	0%	43%	32%	3%	21%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	1.7%	1.3%	0.1%	0.8%	0.0%	3.9%
2016	Tonnes	<5	850	1 200	120	1 100	<5	3 200
	Percentage in emissions of all franchised buses	0%	27%	36%	4%	33%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.9%	1.3%	0.1%	1.2%	0.0%	3.6%

Note 1: The figures in tonnes smaller than 5 are shown as “<5”, the numbers between 5 and 10 are rounded to the nearest integer, the numbers between 10 and 1 000 are rounded to the nearest ten, the numbers between 1 000 and 10 000 are rounded to the nearest hundred. Figures may not add up to total due to rounding off.

Table 2: The percentage of emissions of respirable suspended particulates (RSP) from franchised buses in total emissions of RSP in Hong Kong

Year	Respirable suspended particulates (RSP) PM ₁₀ (tonnes/percentage) (Note 2)							
	Exhaust emission standard	Euro I	Euro II	Euro III	Euro IV	Euro V	Euro VI	Total
2012	Tonnes	40	40	10	<5	7	<5	100
	Percentage in emissions of all franchised buses	38%	41%	12%	2%	7%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.7%	0.7%	0.2%	0.0%	0.1%	0.0%	1.8%
2013	Tonnes	20	40	10	<5	10	<5	90
	Percentage in emissions of all franchised buses	25%	45%	15%	2%	13%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.4%	0.7%	0.2%	0.0%	0.2%	0.0%	1.6%
2014	Tonnes	8	40	10	<5	20	<5	80
	Percentage in emissions of all franchised buses	10%	50%	17%	3%	20%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.1%	0.7%	0.3%	0.0%	0.3%	0.0%	1.5%
2015	Tonnes	<5	30	20	<5	20	<5	70
	Percentage in emissions of all franchised buses	0%	41%	21%	4%	34%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.6%	0.3%	0.1%	0.5%	0.0%	1.6%
2016	Tonnes	<5	20	20	<5	40	<5	70
	Percentage in emissions of all franchised buses	0%	24%	23%	4%	48%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.4%	0.4%	0.1%	0.8%	0.0%	1.7%

Note 2: The figures in tonnes smaller than 5 are shown as “<5”, the numbers between 5 and 10 are rounded to the nearest integer, the numbers between 10 and 1 000 are rounded to the nearest ten. Figures may not add up to total due to rounding off.

Table 3: The percentage of emissions of fine suspended particulates (FSP) from franchised buses in total emissions of FSP in Hong Kong

Year	Fine suspended particulates (FSP) PM _{2.5} (tonnes/percentage) (Note 3)							
	Exhaust emission standard	Euro I	Euro II	Euro III	Euro IV	Euro V	Euro VI	Total
2012	Tonnes	40	40	10	<5	7	<5	100
	Percentage in emissions of all franchised buses	38%	41%	12%	2%	7%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.8%	0.9%	0.3%	0.0%	0.1%	0.0%	2.1%
2013	Tonnes	20	40	10	<5	10	<5	80
	Percentage in emissions of all franchised buses	25%	45%	15%	2%	13%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.5%	0.8%	0.3%	0.0%	0.2%	0.0%	1.9%
2014	Tonnes	7	40	10	<5	20	<5	80
	Percentage in emissions of all franchised buses	10%	50%	17%	3%	20%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.2%	0.9%	0.3%	0.1%	0.4%	0.0%	1.8%
2015	Tonnes	<5	30	10	<5	20	<5	70
	Percentage in emissions of all franchised buses	0%	41%	21%	4%	34%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.7%	0.4%	0.1%	0.6%	0.0%	1.8%
2016	Tonnes	<5	20	20	<5	30	<5	70
	Percentage in emissions of all franchised buses	0%	24%	23%	4%	48%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.5%	0.5%	0.1%	1.0%	0.0%	2.0%

Note 3: The figures in tonnes smaller than 5 are shown as “<5”, the numbers between 5 and 10 are rounded to the nearest integer, the numbers between 10 and 1 000 are rounded to the nearest ten. Figures may not add up to total due to rounding off.

Table 4: The percentage of emissions of volatile organic compounds (VOC) from franchised buses in total emissions of VOC in Hong Kong

Year	Volatile organic compounds (VOC) (tonnes/percentage) (Note 4)							
	Exhaust emission standard	Euro I	Euro II	Euro III	Euro IV	Euro V	Euro VI	Total
2012	Tonnes	30	40	20	<5	<5	<5	90
	Percentage in emissions of all franchised buses	31%	42%	20%	1%	5%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.3%
2013	Tonnes	20	30	20	<5	8	<5	80
	Percentage in emissions of all franchised buses	21%	45%	22%	2%	10%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.3%
2014	Tonnes	6	30	20	<5	10	<5	70
	Percentage in emissions of all franchised buses	8%	49%	25%	2%	16%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.3%
2015	Tonnes	<5	30	20	<5	20	<5	60
	Percentage in emissions of all franchised buses	0%	43%	28%	2%	27%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%	0.2%
2016	Tonnes	<5	20	20	<5	20	<5	60
	Percentage in emissions of all franchised buses	0%	30%	29%	2%	39%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%	0.2%

Note 4: The figures in tonnes smaller than 5 are shown as “<5”, the numbers between 5 and 10 are rounded to the nearest integer, the numbers between 10 and 1 000 are rounded to the nearest ten. Figures may not add up to total due to rounding off.

Table 5: The percentage of emissions of carbon monoxide (CO) from franchised buses in total emissions of CO in Hong Kong

Year	Carbon monoxide(CO) (tonnes/percentage) (Note 5)							
	Exhaust emission standard	Euro I	Euro II	Euro III	Euro IV	Euro V	Euro VI	Total
2012	Tonnes	240	340	160	50	170	<5	960
	Percentage in emissions of all franchised buses	25%	36%	17%	5%	18%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.3%	0.4%	0.2%	0.1%	0.2%	0.0%	1.1%
2013	Tonnes	140	300	150	50	270	<5	900
	Percentage in emissions of all franchised buses	15%	33%	16%	5%	30%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.2%	0.4%	0.2%	0.1%	0.4%	0.0%	1.3%
2014	Tonnes	50	290	140	50	370	<5	900
	Percentage in emissions of all franchised buses	5%	32%	16%	5%	41%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.1%	0.5%	0.2%	0.1%	0.6%	0.0%	1.5%
2015	Tonnes	<5	220	140	50	550	<5	960
	Percentage in emissions of all franchised buses	0%	23%	15%	5%	57%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.4%	0.2%	0.1%	1.0%	0.0%	1.7%
2016	Tonnes	<5	150	140	50	750	<5	1 100
	Percentage in emissions of all franchised buses	0%	13%	13%	5%	69%	0%	100%
	Percentage in total pollutant emissions in Hong Kong	0.0%	0.3%	0.2%	0.1%	1.3%	0.0%	1.9%

Note 5: The figures in tonnes smaller than 5 are shown as “<5”, the numbers between 5 and 10 are rounded to the nearest integer, the numbers between 10 and 1 000 are rounded to the nearest ten, the numbers between 1 000 and 10 000 are rounded to the nearest hundred. Figures may not add up to total due to rounding off.

Table 6: The percentage of emissions of sulphur dioxide (SO₂) from franchised buses in total emissions of SO₂ in Hong Kong

Air pollutant	Air pollutant emissions from franchised buses (tonnes)* [] Percentage in total emissions in Hong Kong				
	2012	2013	2014	2015	2016
Sulphur dioxide (SO ₂)	5 [<1%]	5 [<1%]	5 [<1%]	5 [<1%]	5 [<1%]

* The emission figures are rounded to the nearest integer.

Note: Regarding SO₂, as the estimation of emissions is based on the total fuel consumption of franchised buses, statistics by exhaust emission standard are not available.

As ozone is not directly emitted from emission sources (such as vehicle emissions) but formed by the photochemical reaction of some pollutants (including NO_x and VOC) under sunlight, it is not included in the emission inventory.

(b) Retrofitting existing franchised buses with emission reduction devices is an effective way to reduce their emissions before their retirement. In the past few years, the Government has fully subsidised franchised bus companies to retrofit 1 030 Euro II/III double-deck diesel buses with selective catalytic reduction devices (SCRs), upgrading their emission performance to Euro IV level or above. The retrofit programme only covered buses with a remaining service life not less than 2 years, bus models that were technically feasible (such as the availability of sufficient room) and with a relatively large number (i.e. bus model with not less than 100 buses). The retrofit programme was completed at the end of 2017 with a total of 1 030 eligible Euro II and III franchised buses retrofitted with SCRs under the programme. As at the end of December 2018, 306 buses retrofitted with SCRs at an earlier stage have been retired or out of service due to traffic accidents.

All Euro IV, V and VI franchised buses have been equipped with after-treatment devices such as SCRs or exhaust gas recirculation devices upon purchase. As at the end of December 2018, the distribution of licensed Euro II and III buses by each franchised bus company is tabulated below:

Franchised bus company	Buses not yet retrofitted with SCRs		Euro II or III buses retrofitted with SCRs	
	Euro II	Euro III	Euro II	Euro III
The Kowloon Motor Bus Company (1933) Limited	65	420	48	619
Citybus Limited	0	1	0	8
New World First Bus Services Limited	3	0	7	34
Long Win Bus Company Limited	0	9	0	8

New Lantao Bus Company (1973) Limited	0	17	0	0
Sub-total	68	447	55	669
Total	515		724	

- End -

CONTROLLING OFFICER'S REPLY**ENB309****(Question Serial No. 3867)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (2) AirControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please set out in tabular form the pollutant emissions of various ocean-going vessels (OGVs) and the percentages of their emissions of various types of pollutants in the overall air pollutants in Hong Kong in the past 5 years, with a breakdown by types of OGVs.

Asked by: Hon KWOK Wing-hang, Dennis (LegCo internal reference no.: 21)Reply:

The Environmental Protection Department (EPD) compiles the Hong Kong Air Pollutant Emission Inventory every year to analyse the distribution and trends of major air pollution sources in Hong Kong. The Hong Kong Air Pollutant Emission Inventories for 2017 and 2018 are still under compilation.

Please see the following table for the percentage of emissions of 4 types of major air pollutants from ocean-going vessels (OGVs) in Hong Kong's total emissions from 2012 to 2016.

Year	OGV type	OGV emissions (tonnes) (Percentage in Hong Kong's total emissions)			
		Sulphur dioxide	Nitrogen oxides	Respirable suspended particulates	Fine suspended particulates
2016	Cruise ship	390 (2%)	1 240 (1%)	80 (2%)	80 (2%)
	Oil tanker	330 (2%)	460 (<1%)	40 (<1%)	40 (1%)
	Container vessel	6 590	10 120	880	810

Year	OGV type	OGV emissions (tonnes) (Percentage in Hong Kong's total emissions)			
		Sulphur dioxide	Nitrogen oxides	Respirable suspended particulates	Fine suspended particulates
		(38%)	(11%)	(20%)	(24%)
	General cargo vessel	160 (<1%)	240 (<1%)	20 (<1%)	20 (<1%)
	Others	700 (4%)	1 190 (1%)	90 (2%)	80 (2%)
	All OGVs	8 170 (47%)	13 250 (15%)	1 120 (26%)	1 020 (30%)
2015	Cruise ship	1 020 (5%)	1 640 (2%)	150 (3%)	140 (4%)
	Oil tanker	400 (2%)	370 (<1%)	40 (<1%)	40 (<1%)
	Container vessel	8 440 (43%)	10 710 (12%)	1 050 (23%)	950 (26%)
	General cargo vessel	230 (1%)	250 (<1%)	30 (<1%)	20 (<1%)
	Others	1 010 (5%)	1 680 (2%)	120 (3%)	110 (3%)
	All OGVs	11 100 (57%)	14 650 (16%)	1 390 (30%)	1 260 (34%)
2014	Cruise ship	1 130 (4%)	1 840 (2%)	180 (3%)	170 (4%)
	Oil tanker	490 (2%)	330 (<1%)	40 (<1%)	40 (<1%)
	Container vessel	9 540 (30%)	11 570 (11%)	1 160 (21%)	1 050 (25%)
	General cargo vessel	220 (<1%)	230 (<1%)	30 (<1%)	20 (<1%)
	Others	1 190 (4%)	2 250 (2%)	140 (3%)	130 (3%)
	All OGVs	12 580	16 210	1 550	1 410

Year	OGV type	OGV emissions (tonnes) (Percentage in Hong Kong's total emissions)			
		Sulphur dioxide	Nitrogen oxides	Respirable suspended particulates	Fine suspended particulates
		(40%)	(15%)	(28%)	(33%)
2013	Cruise ship	660 (2%)	1 380 (1%)	80 (1%)	70 (2%)
	Oil tanker	660 (2%)	470 (<1%)	60 (<1%)	50 (1%)
	Container vessel	9 670 (31%)	12 050 (11%)	1 150 (20%)	1 040 (23%)
	General cargo vessel	300 (<1%)	320 (<1%)	30 (<1%)	30 (<1%)
	Others	1 100 (4%)	1 350 (1%)	120 (2%)	110 (2%)
	All OGVs	12 400 (39%)	15 570 (14%)	1 440 (25%)	1 310 (29%)
2012	Cruise ship	810 (2%)	990 (<1%)	90 (1%)	80 (2%)
	Oil tanker	580 (2%)	350 (<1%)	50 (<1%)	40 (<1%)
	Container vessel	10 430 (32%)	12 850 (12%)	1 280 (22%)	1 160 (26%)
	General cargo vessel	310 (<1%)	290 (<1%)	30 (<1%)	30 (<1%)
	Others	800 (2%)	860 (<1%)	90 (2%)	80 (2%)
	All OGVs	12 930 (40%)	15 340 (14%)	1 540 (26%)	1 390 (31%)

Notes: - The figures are rounded to the nearest ten.

- There may be slight discrepancies between the sums of emissions by individual OGV type and the total OGV emissions shown in the table because of rounding.

- End -

CONTROLLING OFFICER'S REPLY

ENB310

(Question Serial No. 3431)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the prosecutions of offences,

- 1) What is the manpower involved in conducting inspections and monitoring work?
- 2) Among the some 4 000 complaints received in the past year, what were the respective numbers of cases that were followed up, issued a warning eventually and prosecuted? Please set out the figures by type.
- 3) In the past year, what were the respective numbers of proactive inspections conducted and prosecutions instituted by the Department?

Asked by: Hon LAM Kin-fung, Jeffrey (LegCo internal reference no.: 67)

Reply:

- 1) As the inspection and monitoring work relating to waste are part of the routine integrated enforcement and regulatory work of the Environmental Protection Department (EPD), there is no separate figure for the deployed staff involved.
- 2) & 3) The enforcement actions taken by the EPD under the Waste Disposal Ordinance include following up each received complaint, conducting regular proactive inspections, taking ambush operations based on analysis of intelligence, etc. In 2018, the EPD conducted 19 377 inspections to enforce the Waste Disposal Ordinance, including 4 178 inspections for following up complaints. Regarding offences, the EPD issued a total of 54 warnings and instituted 731 prosecutions, including issuance of 485 summonses and 246 fixed penalty notices. There are no separate figures for the numbers of warnings and prosecutions by complaint and by proactive inspection.

- End -

CONTROLLING OFFICER'S REPLY

ENB311

(Question Serial No. 4418)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (6) Nature Conservation

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Environmental Protection Department set up the Countryside Conservation Office (CCO) in July 2018 to co-ordinate conservation and revitalisation projects that would promote sustainable development of remote countryside in the long run. The CCO will take forward rural minor improvement works, and support non-governmental organisations to interact and co-operate with villagers in organising diverse and innovative conservation activities and revitalisation projects under the Countryside Conservation Funding Scheme (CCFS) which is expected to be launched in 2019.

1. Please provide details of the conservation activities, revitalisation projects under the CCFS to be launched in 2019, and the staff establishment and a breakdown of expenditure to be involved.
2. Provision for 2019-20 under this Programme is \$42.5 million (116.4%) higher than the revised estimate for 2018-19. The Administration explains that this is due to increased cash flow requirement for a non-recurrent project. What is that non-recurrent project? What is the breakdown of estimated expenditure?
3. What are the work plans of the CCO and the timetable for taking forward such work in the coming 5 years?

Asked by: Hon LAU Ip-keung, Kenneth (LegCo internal reference no.: 490)

Reply:

1. Established in late July 2018, the Countryside Conservation Office (CCO) will take forward the relevant conservation and revitalisation efforts as well as minor improvement works with the \$1 billion earmarked by the Government. The CCO plans to launch a Countryside Conservation Funding Scheme (CCFS) with half of the \$1 billion (i.e. \$500 million) under a non-recurrent account and accept applications in the third quarter of 2019 to support non-governmental organisations (NGOs) to interact and co-operate with villagers. For instance, the long-term conservation and revitalisation of certain areas including private land may be funded by an approach similar to the current Nature

Conservation Management Agreement Scheme under the Environment and Conservation Fund. The Advisory Committee on Countryside Conservation (ACCC), which will soon be established, will examine applications on conservation and revitalisation projects (excluding minor improvement works) submitted by NGOs, and monitor the implementation of approved projects and proposals. The CCO also plans to spend the remaining \$500 million on suitable minor improvement works and rehabilitation of the existing architectural environment in the countryside.

There will be 8 administrative and clerical staff in the CCO to support the work of the ACCC. Besides performing daily administrative duties, the staff will also provide secretariat services for the ACCC and assist in handling funding applications for conservation and revitalisation projects submitted by NGOs. As the above-mentioned work is part of the duties of the CCO, we are unable to break down the manpower and estimates involved for the CCFS.

The increased estimates under this Programme is mainly earmarked for meeting the cash flow requirements for the CCFS, to be launched in the third quarter of 2019, in supporting funding applications from NGOs for their conservation and revitalisation projects (excluding minor improvement works).

2. At its initial stage of the establishment, the CCO will accord priority to handle and enhance the countryside revitalisation of Lai Chi Wo, and to carry out ecological conservation in Sha Lo Tung. The CCO will keep under review the implementation of these initiatives and their effectiveness, with the aim of extending the initiatives progressively to other remote countryside areas. Since the establishment of the CCO, its staff have conducted a number of site inspections to Lai Chi Wo and Sha Lo Tung, and have been liaising and co-ordinating with relevant government departments, NGOs and stakeholders (including village representatives, the Rural Committees concerned and green groups, etc.) to discuss and examine suitable minor improvement works proposals. Its preliminary proposals include exploring the feasibility of installing a broadband network and improving public toilet facilities, details of which are still under formulation at the present stage. The CCO will consult the ACCC, which will soon be established, about the suitable improvement works proposals, with a view to taking forward the proposals as soon as possible to improve the local infrastructure.

- End -

CONTROLLING OFFICER'S REPLY

ENB312

(Question Serial No. 4641)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “continue to monitor and enhance the operation of the Recycling Fund”, would the Administration advise on the following:

- a) What were the parties, manpower and resources involved in the past 3 years?
- b) What are the work details?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 126)

Reply:

The Government launched the \$1 billion Recycling Fund in October 2015 to facilitate the sustainable development of the recycling industry, promote the recovery and recycling of waste, turn waste into resources and reduce the disposal of waste at landfills. As at 28 February 2019, the Advisory Committee on Recycling Fund (RFAC) has received 525 applications, of which 220 approved, 73 rejected, 156 withdrawn by the applicant organisations of their own accord before vetting and 76 being processed. Excluding the approved projects which have been withdrawn by some applicant organisations, a total of 175 funded projects have been or will soon be commenced, involving a total funding of more than \$130 million, of which 26 are under the Enterprise Support Programme (ESP), 139 are for Standard Projects and 10 are under the Industry Support Programme (ISP).

The Environmental Protection Department (EPD) and the RFAC have been striving to enhance the operation of the Recycling Fund so that it will better address the needs of the industry and support its development. Without compromising the need in safeguarding the use of the Recycling Fund and maintaining effective control on applicants, various facilitation measures have been introduced progressively since the Fund's early stage of operation. These measures include providing partial reimbursement of expenses to successful applicants before the launch of the projects under the ESP and the ISP and establishing a category of Standard Projects under the ESP to minimise the administrative workload of small and medium enterprises (SMEs) in making applications. The SMEs undertaking Standard Projects can also submit applications, report achievements and seek reimbursements in accordance with a set of streamlined procedures. Besides, the RFAC

has approved the waiving of a condition on opening a designated project bank account for Standard Projects, and can provide reimbursement midway through the project period.

To assist the recycling industry to address the Mainland's progressive tightening requirements on imports of recyclables, the Recycling Fund announced in September 2017 that \$20 million had been earmarked to expand the list of fundable items under Standard Projects to help upgrade the recyclers' ability in processing waste plastics and waste paper. The Recycling Fund also earmarked \$50 million for encouraging recyclers to use compactor trucks for more effective and efficient transportation of waste plastics and waste paper and lower transportation costs. Furthermore, in July 2018, the Recycling Fund increased the amount earmarked for Standard Projects to \$50 million and expanded the funding scope to cover the equipment related to the recycling of waste metals and food waste. Subsequently, the funding scope of Standard Projects was further expanded to cover the equipment related to the recycling of waste wood and subsidise local school lunch box suppliers to procure equipment so as to implement the adoption of reusable lunch boxes and food waste recycling.

The EPD is now conducting a mid-term review of the operation of the Recycling Fund, which covers a comprehensive review of the overall operation of the Fund as well as collection of views from the recycling industry and various stakeholders regarding the existing arrangements of the Fund. The Fund introduced the first stage of enhancement measures in mid-January 2019, which mainly included:

1. To introduce a new rental subsidy scheme to provide a maximum of 50% rental subsidy to encourage recyclers relocating their existing operations to more appropriate venues. For example, they can relocate from street shops at ground level to industrial buildings, or from recycling sites located in inappropriate zones to industrial buildings or lands zoned for industrial purpose;
2. To extend the scope of rental expenses subsidy under the current ESP from rental expenses incurred from newly rented premises to rental expenses incurred from the existing premises, with a funding support cap of \$40,000 per month or 20% of the total funding amount (whichever is lower);
3. To increase the maximum upfront payment for ESP projects from 15% to 30% of the total funding amount to improve grantees' cash flow during the early phase of the projects;
4. To merge the existing Standard Project - \$150,000 and Standard Project - \$1M into one new programme named Standard Project - \$1M, with a funding ceiling of \$1,000,000, and to update the prescribed equipment list timely in response to the needs of the industry so as to simplify the application process for recyclers to make the best use of the Fund;
5. To streamline the workflow to expedite payment of the approved funding amount to grantees of Standard Projects; and

6. To further reduce the grantees' administrative workload, including relaxing the covering period requirements for the baseline quantity survey of the projects and the frequency of submitting progress reports.

We will continue with the mid-term review and plan to introduce the next stage of enhancement measures as soon as possible so as to provide more appropriate support for the industry.

Managing and monitoring the implementation of the Recycling Fund and undertaking the work to enhance the Recycling Fund are part of the work of the Waste Reduction and Recycling Division of the EPD, and are absorbed by existing resources. In addition, the Secretariat of the Recycling Fund (i.e. the Hong Kong Productivity Council) has a dedicated team for project management and technical assessment to offer inputs on general application procedures to applicant organisations, accept and process applications, monitor the progress of approved projects and check on compliance with the funding conditions, etc. Since the preparation for the establishment of the Recycling Fund in September 2015 till March 2018, the Secretariat's expenditure on processing applications, monitoring approved projects and checking on compliance for the Recycling Fund was about \$25 million (not including the in-kind contribution of about \$8.5 million from the Hong Kong Productivity Council).

- End -

CONTROLLING OFFICER'S REPLY

ENB313

(Question Serial No. 4642)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding taking forward the Community Green Stations (CGSs), would the Administration advise on the following:

- a) What were the manpower and resources involved since the launch of the CGSs?
- b) What are the anticipated details of work in future?
- c) It was pointed out that the CGSs failed to facilitate the participation of the public in environmental protection and recycling activities due to their remote locations. What are the Administration's considerations in site selection? Is there any mechanism to review the effectiveness of the CGSs? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 127)

Reply:

a) and b)

The Environmental Protection Department (EPD) is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. The total cost for capital works of all CGSs is estimated to be about \$400 million. The operating expenditure of individual CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions. At present, there are a total of 17 posts tasked to implement this initiative and monitor the operation of the CGSs, including 16 permanent posts and 1 time-limited post (until 2020). As at the end of 2018, 7 CGSs have progressively been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. The latest development of individual CGSs is tabulated below:

CGS	Site	Latest Development and Schedule
Sha Tin CGS	10 On Ping Street, Shek Mun	The CGS commenced operation in May 2015. In 2018, the CGS collected about 461 tonnes of recyclables, with an operating expenditure of about \$4.76 million.
Eastern CGS	30 Oi Shun Road, Shau Kei Wan	The CGS commenced operation in August 2015. In 2018, the CGS collected about 437 tonnes of recyclables, with an operating expenditure of about \$3.91 million.
Kwun Tong CGS	27 Sheung Yee Road, Kowloon Bay	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$4.27 million.
Yuen Long CGS	65 Tin Wah Road, Tin Shui Wai	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$3.46 million.
Sham Shui Po CGS	339 Tung Chau Street	The CGS commenced operation in October 2017. In 2018, the CGS collected about 394 tonnes of recyclables, with an operating expenditure of about \$4.70 million.
Tuen Mun CGS	9 Tuen Yee Street	The CGS commenced operation in September 2018. As at the end of 2018, the CGS collected about 70 tonnes of recyclables, with an operating expenditure of about \$2.10 million.
Kwai Tsing CGS	12 Tam Kon Shan Road, Tsing Yi	The CGS commenced operation in November 2018. As at the end of 2018, the CGS collected about 40 tonnes of recyclables, with an operating expenditure of about \$770,000.
Tai Po CGS	25 Dai Wah Street	The tendering for the operation contract is underway. The CGSs are expected to

CGS	Site	Latest Development and Schedule
Islands CGS	1 Chung Mun Road, Tung Chung, Lantau	commence operation within 2019.
Sai Kung CGS	Po Lam Lane, near Po Hong Road and Po Lam Road North, Tseung Kwan O	Design and construction works are in progress.
Wan Chai CGS	Wan Shing Street, near Hung Hing Road	
Tsuen Wan CGS	Hoi Shing Road, near Hoi Kok Street	The site has been confirmed and planning of construction works is in progress.
Wong Tai Sin CGS, Kowloon City CGS, Southern CGS, Yau Tsim Mong CGS, Central and Western CGS and North CGS	Site to be confirmed	We have been following up the views from District Councils. Taking into account the actual operating experience in other CGSs, we are continuing with site search and other associated preparation work.

c)

On the site selection for a CGS, the site area should generally be no less than 1 500 square metres and we have, as far as practicable, been identifying sites that are conveniently located to facilitate visits by local residents. Despite the fact that it is quite challenging to identify suitable sites in densely populated areas, we will avoid setting up the CGS in remote area of the district. The CGSs currently in service or under planning and construction broadly meet the above site selection criteria. In addition, the CGS operators will set up mobile collection points in the relevant district to provide more channels and flexibility for the collection of recyclables. The CGS operators will also send collection vehicles to pick up recyclables at different locations within their respective districts.

Since their inception, the CGSs have been running smoothly. They have generally been well received by the local community and have been making good progress in providing support for community recycling. The Sha Tin CGS, the Eastern CGS, the Kwun Tong CGS and the Yuen Long CGS have all exceeded the designated requirements in the respective service contracts of the quantity of recyclables to be recovered (i.e. with the total quantity to be recovered not less than 600 tonnes in 3 years) and those relating to the organisation of educational activities. Besides, the Sham Shui Po CGS, which commenced operation in October 2017, has also been operating well, and is expected to be able to meet or even exceed the contractual requirements of the quantity to be recovered. The Tuen Mun CGS and the Kwai Tsing CGS commenced operation in September and November 2018 respectively. We will review the relevant operational statistics to monitor their

operation performance. Moreover, we will take into account views from various stakeholders and make suitable adjustment to the work of the CGSs on environmental education and recycling support as and when necessary.

- End -

CONTROLLING OFFICER'S REPLY

ENB314

(Question Serial No. 4643)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

It is mentioned by the Administration that it will continue to promote reduction of food waste under the Food Wise Hong Kong Campaign. In this connection, would the Administration advise this Committee on the following:

- a) What were the manpower and expenditure involved in the Campaign in the past 3 years? What were the number of participating organisations and the total quantity of food waste recovered annually?
- b) Has the effectiveness of the Campaign been reviewed regularly? If yes, what are the details? If no, what are the reasons?
- c) Are there any plans to widen the scope of the Campaign? If yes, what are the details and timetable? If no, what are the reasons?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 128)

Reply:

- a) Since its official launching in 2013, the Food Wise Hong Kong Campaign (the Campaign) has been striving to promote a food wise and waste less culture and encourage behavioural change to reduce food waste at source in the community. The manpower involved in the implementation of the Campaign will continue to be absorbed by the existing establishment. The expenditures of the Campaign in the past 3 years are shown in the table below:

Description	Expenditure 2016-17	Expenditure 2017-18	Estimated expenditure 2018-19
	(\$m)	(\$m)	(\$m)
Advertising for the Campaign (including those in public transport system, printed materials and electronic platform, etc.)	1	2.1	4
Establishing a supporting website for the Campaign and organising “Food Wise” talks	0.9	0.8	0.5
Organising publicity activities to promote the “Food Wise” message, including: - Food Wise Hong Kong Campaign Roving Exhibitions - The Food Wise Eateries Scheme	1.7	1.1	1.8

The Campaign has promoted a food wise and waste less culture and encouraged behavioural change to reduce food waste at source in the community through various schemes and activities since its launching in 2013. The major deliverables of the Campaign include:

- The Food Wise Charter – As at February 2019, about 800 organisations have signed the Food Wise Charter and are committed to reducing food waste at source. The signatories include public organisations and public utilities, commercial and industrial (C&I) sectors, food and beverage sectors, hotel sector, property development and management sectors, higher education institutions, secondary schools, primary schools and kindergartens.
- “Food Wise” Talk – As at February 2019, 104 “Food Wise” talks were held by the Government with a total of over 10 000 participants. The talks helped promote the “Food Wise” messages and mainly introduced the food waste issues, food waste reduction at source, treatment of food waste, food waste separation and recycling, etc.
- “Food Wise” Roving Exhibition – As at February 2019, a total of 22 roving exhibitions were held by the Government at various districts in Hong Kong to bring the message of food wise and waste less to the community and encourage the public to reduce food waste at source. The roving exhibitions featured display panels with food waste reduction tips, including food trimmings for the second dish recipes, tactics of food storage and purchase management, etc., and let the public share their “Food Wise” wishes and opinions on the exhibition board. These exhibitions attracted over 30 000 visitors in total.

- The “Big Waster” Facebook and Instagram pages – The “Big Waster” symbolising food wastage in the Campaign has strengthened interaction with members of the public, through the Facebook and Instagram pages in which relevant information, including details about food waste reduction, is provided. Up to February 2019, the “Big Waster” Facebook has received more than 61 000 “likes” and there are over 7 000 “followers” on Instagram.
- The Food Wise Eateries Scheme – To continue to encourage the food and beverage sectors to offer portioned meals for customers to choose from, so as to avoid the generation of food waste. As at February 2019, about 320 and 480 eateries have been awarded with gold class and silver class status respectively.

Regarding the total quantity of food waste recycled annually under the Campaign, as food waste is currently recycled by various organisations on their own, no specific figures on this are available.

- b) According to the reports on “Monitoring of Solid Waste in Hong Kong”, the average daily quantity of food waste disposed of at landfills was 3 662 tonnes in 2017, which was 1.7% higher than that of 2016. It was mainly driven by the increase of C&I food waste. In recent years, the per capita disposal rate of C&I food waste has shown an upward trend, increasing from 0.14 kg per day in 2015 to 0.18 kg per day in 2017, which may be partly due to the increase in the number of eateries and food factories. The per capita disposal rate of domestic food waste has remained at 0.32 kg per day. On this basis, we will continue with the implementation of the Campaign and promotion of a food wise culture in the community, and through the legislative proposal of municipal solid waste charging, to encourage behavioural change of the public to reduce food waste.
- c) In 2019-20, the Government will continue to promote the food wise and waste less culture by enhancing the above schemes and activities. In addition, the Organic Resources Recovery Centre Phase 1 (O • PARK1) was completed and commissioned in July 2018, with a daily food waste treatment capacity of 200 tonnes. To tie in with the development of the O • PARK1, the Campaign has entered a new stage. Besides promoting the food wise and waste less culture, it is committed to promoting the on-site/off-site recycling of unavoidable food waste. To encourage the C&I sectors to recycle food waste properly and achieve the target of turning waste into energy, the Government launched a pilot scheme on 1 July 2018 to source separate and collect food waste generated from 40 public markets and cooked food venues managed by the Food and Environmental Hygiene Department (FEHD), as well as 9 shopping centres and wet markets managed by the Hong Kong Housing Authority (HA), for delivery to the O • PARK1 for recycling. Besides, to cultivate the “Food Wise” culture on campus and bring the message of food wise and waste less to the schools, the Campaign has earmarked \$5 million under the Environment and Conservation Fund and rolled out the Pilot Programme on Provision of Small Food Waste Composters at School in 2018 to provide 90 primary and secondary schools with small food waste composters, education kits and information for educational activities, with the aim of assisting primary and secondary schools to cultivate the “Food Wise” culture among teachers and students,

and demonstrating the recycling of food waste into compost for use in planting on campus.

To promote proper recycling of food waste and achieve the target of turning waste to energy, the Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. The pilot scheme will mainly involve collection of food waste generated by C&I sectors, including extending the above pilot scheme of collection of C&I food waste to other public markets, cooked food venues and shopping centres under the FEHD and the HA, and other facilities, for example, more wholesale markets under the Agriculture, Fisheries and Conservation Department and hospitals under the Hospital Authority, etc. The pilot scheme will also include free food waste collection service for all primary and secondary schools, and tertiary institutions in Hong Kong starting from the second quarter of this year through those school lunch suppliers or canteens of the tertiary institutions which are interested to join.

- End -

CONTROLLING OFFICER'S REPLY

ENB315

(Question Serial No. 4644)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “the Steering Committee to Promote Sustainable Development of Recycling Industry”, would the Administration advise on the following:

- a) What were the parties, manpower and resources involved in the past 3 years?
- b) What is the work schedule in the next 2 years?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 129)

Reply:

- (a) The Steering Committee to Promote Sustainable Development of Recycling Industry (the Steering Committee), chaired by the Chief Secretary for Administration, coordinates the work of various bureaux and departments. Regarding the support of the operation of the Steering Committee and secretariat services, as it is part of the routine duties of the Waste Reduction and Recycling Division of the Environmental Protection Department (EPD), the manpower and expenditure involved are absorbed by existing establishment and resources. We do not have a breakdown of the manpower and expenditure involved in taking forward the relevant work by other bureaux and departments.
- (b) For the way forward, the Steering Committee will continue to assist the recycling industry and the community in addressing the challenge of the Mainland's tightening requirements on imports of recyclables and embracing the opportunities arising thereof, and will actively explore measures and strategies to step up efforts to drive behavioural change in the community towards better and more widespread waste reduction and clean recycling practices and to enhance support at the community level so as to raise the quality of recyclables. The Steering Committee will also study the feasibility of incubating local manufacturing industry using recycled materials to absorb more effectively part of the locally generated recyclables. This in the long run will help the recycling industry to move up the value chain and provide more stable and diversified outlets for local recyclables. We will continue to carry out the above work.

- End -

CONTROLLING OFFICER'S REPLY

ENB316

(Question Serial No. 4645)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “to raise public awareness of and enhance community participation in clean recycling and proper source separation of waste”, would the Administration advise on the following:

- a) What were the parties, manpower and resources involved in the past 3 years? What were the work details?
- b) Are there records of the percentage of clean recycling among the recyclables collected through the Environmental Protection Department currently? If yes, what are the details? If no, what are the reasons?
- c) Are there regular reviews on the effectiveness of such efforts? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 130)

Reply:

The Environmental Protection Department (EPD) has been encouraging the public to separate recyclables at source whether at home or at workplace through the Source Separation of Waste Programme (the Programme). The EPD has gained the support of the Environmental Campaign Committee (ECC) to provide more free recycling bins for the relevant housing estates as well as commercial and industrial (C&I) buildings for placing at suitable common areas. As at the end of 2018, over 2 100 housing estates, some 700 rural villages and over 1 000 C&I buildings have participated in the Programme. The Government has now placed about 16 000 sets of recycling bins at public places, schools, office buildings, country parks, as well as buildings which have participated in the Programme to facilitate source separation of recyclables by the public. The provision of recycling bins covers over 80% of the places where Hong Kong people live and work.

As single block buildings in older districts usually do not have property management company for implementing and managing recycling programmes or the space for setting up recycling facilities, the EPD has set up Community Recycling Centres (CRCs) operated by non-government organisations (NGOs) in various districts through the Environment and

Conservation Fund (ECF) to provide services for residents living in these buildings, so as to facilitate their separation for recovery and to promote waste reduction and recycling activities at the community level. There are currently 17 CRCs, 2 mobile community recycling projects and 50 collection points in Hong Kong, all of which are operated by NGOs. In the past 3 years (2016 to 2018), the total amount of approved funding to the CRCs was about \$110 million.

The EPD has collaborated with the ECC to take forward a Clean Recycling Campaign with funding from the ECF since mid-2015 to promote behavioural change towards clean recycling, thereby increasing the quality, value and recyclability of recyclables. The Clean Recycling Campaign disseminates the message on clean recycling through various channels, including Announcements in the Public Interest, posters, leaflets, the free mobile application “Waste Less” and new designs on the front panel of public recycling bins, so as to promote behavioural change towards clean recycling, thereby increasing the quality and value of recyclables and turning more waste into resources. From 2016 to 2018, the ECC engaged non-profit-making organisations to carry out educational and promotional activities on clean recycling at more than 230 private housing estates, organise a series of activities to encourage residents to learn more about clean recycling and practise correct recycling procedures, and provide support and training for frontline property management staff, residents’ associations and cleansing contractors. The total expenditure on these activities was about \$5 million.

The EPD is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. The CGS operators will proactively connect with the housing estates and property management companies in their districts to organise various types of environmental educational activities. There are currently 7 CGSs in operation (including Sha Tin, Eastern, Kwun Tong, Yuen Long, Sham Shui Po, Tuen Mun and Kwai Tsing). In the past 3 years (2016 to 2018), the CGSs received more than 760 000 visitors and organised more than 3 700 environmental educational activities. The operating expenditure of each CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions. A breakdown of the expenditure by individual activity under the CGSs is not available.

Regarding co-operation with the District Councils (DCs), the EPD, the ECC and the Home Affairs Department have worked with the 18 DCs on the “Community Participation Programme in Environmental Protection” since 2012 to jointly promote environmental education, waste reduction at source and recycling at the district level to further cultivate the “Use less, Waste less” culture in the community. In the past 3 years (2016 to 2018), the total estimated expenditure on the relevant activities was \$10.8 million.

The ECF has also approved funding for local NGOs and green groups to implement many Environmental Education and Community Action Projects on waste reduction and clean recycling. In the past 3 years (as at 31 December 2018), the funding involved amounted to about \$18 million.

The EPD has been keeping in view closely the progress of the above work, and has reviewed its effectiveness and made appropriate adjustments. In response to the

Mainland's gradual tightening of requirements on imports of recyclables since January 2018, the EPD launched a new round of clean recycling campaigns last year, focusing on encouraging the public to practise clean separation and recycling of waste paper and waste plastics, so as to tie in with the subsequent recycling processes and meet the export requirements.

Part of the above work was funded by the ECF while the rest was part of the work of the EPD in waste reduction and recycling. As the manpower and expenditure were absorbed by the existing establishment and resources, we do not have a breakdown on such expenditure. We do not keep records on the percentage of the recyclable materials collected through different channels that had undergone clean recycling.

- End -

CONTROLLING OFFICER'S REPLY

ENB317

(Question Serial No. 4646)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “continue to expand outreaching teams with a view to gradually reaching out to the community in practising proper waste source separation and clean recycling”, would the Administration advise on the following:

- a) What were the parties, manpower and resources involved in the past 3 years?
- b) What were the numbers of housing estates that had received support or assistance in the past 3 years?
- c) Will regular reviews on the effectiveness of the outreaching teams be conducted? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 131)

Reply:

To strengthen on-site support to recycling, the Environmental Protection Department (EPD) is establishing outreaching teams to collaborate closely with community partners to educate the public on the importance of waste reduction at source and assist them to practise proper waste separation at source and clean recycling, and to identify proper outlets for recyclables. At the same time, the outreaching teams will also promote the EPD's various waste reduction and recycling initiatives such as the producer responsibility scheme on waste electrical and electronic equipment, the producer responsibility scheme on glass beverage containers and the proposed municipal solid waste charging, so as to raise public awareness and participation, and enhance stakeholders' understanding on the implementation details. The outreaching teams will strive to establish and maintain a direct communication network with different stakeholders, including property management companies (PMCs), cleansing workers, residents' organisations, District Council (DC) members and community representatives, etc. Starting from December 2018, the outreaching teams have launched pilot outreaching services in 3 districts (i.e. Eastern, Kwun Tong and Sha Tin districts). Actual experiences gained will serve as reference for gradual expansion of the outreaching services to all districts in Hong Kong in future.

The outreaching teams have been visiting public and private housing estates and residential buildings, including single-block buildings and “three nil” buildings in the pilot districts; establishing and maintaining a direct and effective network with different stakeholders, including PMCs, cleansing workers, residents’ organisations, DC members and community representatives, etc. to understand the situation of the housing estates/buildings and provide recommendations on strengthening and enhancing waste reduction and recycling work; and assisting in improving and establishing an efficient system for collection of recyclables and identifying proper outlets for recyclables.

The staffing of the EPD for implementing the outreaching services will be gradually increased from 32 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) at present (i.e. the financial year 2018-19) to 74 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) and 142 non-civil service contract staff in the financial year 2019-20. The estimated expenditure on salaries in 2019-20 is about \$110 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB318

(Question Serial No. 4647)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding "to offer free collection service for all types of waste plastics from non-commercial and non-industrial sources", would the Administration advise on the following:

- a) What are the parties, manpower and resources to be involved?
- b) What are the details of the work?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 132)

Reply:

The Environmental Protection Department (EPD) plans to roll out a two-year Pilot Scheme on Collection and Recycling Services of Waste Plastics in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin) to provide free collection service for waste plastics from non-commercial and non-industrial (non-C&I) sources such as public and private housing estates, schools, public institutions, the Community Recycling Centres and the Community Green Stations in the districts for further treatment in recycling process, then produce recycled raw materials or products to be exported or supplied to the local market so as to ensure that the waste plastics collected are properly handled. We are tendering the waste plastics collection service of the Eastern District, with a view to rolling out the services within 2019. We will also invite tenders for waste plastics collection service in Kwun Tong and Sha Tin districts one after another later. Having regard to the data collected and experience gained in the Pilot Scheme and the progress of development of the producer responsibility scheme on plastic beverage containers, we will consider expanding the free collection service for non-C&I waste plastics to the whole territory in a prompt manner. In 2019-20, the Pilot Scheme will be undertaken by 18 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) and the estimated total expenditure is about \$72 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB319

(Question Serial No. 4648)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “introduce a pilot scheme to collect food waste generated from commercial and industrial sources”, would the Administration advise on the following:

- a) What are the anticipated parties, manpower and resources to be involved?
- b) What are the details of the work?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 133)

Reply:

To promote proper recycling of food waste and achieve the target of turning waste into energy, the Chief Executive mentioned in her 2018 Policy Agenda that a pilot scheme would be introduced to examine the feasibility of implementing government-run free food waste collection services in the long run. The pilot scheme will mainly involve collection of food waste generated by commercial and industrial (C&I) sectors, including the continued provision of food waste collection service for public markets and cooked food venues under the Food and Environmental Hygiene Department (FEHD), as well as wet markets and shopping centres managed by the Hong Kong Housing Authority (HA). The pilot scheme will also include free food waste collection service for all primary and secondary schools, and tertiary institutions in Hong Kong starting from the second quarter of this year through those school lunch suppliers or canteens of the tertiary institutions which are interested to join.

Organic Resources Recovery Centre Phase 1 (O • PARK1) has started receiving food waste for testing and commissioning since 1 July 2018. Since then, 40 public markets and cooked food venues under the FEHD and 9 shopping centres and wet markets under the HA have started source separation and collection of food waste. The food waste collection contractor of the FEHD delivers source-separated food waste from the above 49 premises to the O • PARK1 for treatment every day. In addition, to further promote recycling of food waste and enhance the quality of food waste collected, the Environmental Protection Department (EPD) has arranged a contractor to provide suitable guidance and training for

operators of public market stalls, cooked food venues and shopping centres, including advising them on how to practise source separation, collection and delivery of food waste. We are discussing with the relevant government departments on extending the free food waste collection service to other public markets, cooked food venues and shopping centres under the FEHD and the HA and other facilities, for example, more wholesale markets under the Agriculture, Fisheries and Conservation Department and hospitals under the Hospital Authority, etc. under the above pilot scheme.

Regarding provision of free food waste collection service for school lunch suppliers, in February this year, the EPD invited school lunch suppliers to participate in the above pilot scheme by collecting the food waste generated from their supply of lunch for primary and secondary schools and food left uneaten by students, and delivering such food waste to the O • PARK1. About 10 school lunch suppliers have indicated their interest in participating in the above pilot scheme. The contractor of the O • PARK1 engaged by the EPD is getting in contact with the interested school lunch suppliers to discuss the food waste collection arrangements. It is expected that the food waste collection service can be launched in the second quarter of this year. In addition, the EPD is getting in touch with canteens of the tertiary institutions to discuss various feasible options to provide free food waste collection service for them under the pilot scheme. Most tertiary institutions have indicated their interest in participating in the above pilot scheme.

Additionally, we will allocate a portion of the treatment capacities of the O • PARK1 and the “food waste/sewage sludge anaerobic co-digestion” trial scheme at the Tai Po Sewage Treatment Works (STW) to provide free collection and recycling services for a portion of the domestic food waste. Priority will be given to food waste from housing estates with experience in food waste separation and recycling, such as the 35 private housing estates that have participated in the “Food Waste Recycling Projects in Housing Estates” under the Environment and Conservation Fund (ECF). These housing estates have received funding support from the ECF for installing on-site food waste treatment facilities, organising relevant educational and promotional activities, and putting source separation and recycling of food waste into practice. We will take the initiative to invite these housing estates to join the aforesaid pilot scheme on free food waste collection service.

We will also explore the provision of free food waste collection service for some of the C&I establishments which have been proactively delivering their food waste from different districts to the O • PARK1 at present. The number of establishments involved and the scale of collection are subject to the treatment capacities of the food waste recycling facilities.

Apart from that, we are planning to extend the “food waste/sewage sludge anaerobic co-digestion” trial scheme to cover the Sha Tin STW for commissioning in 2022. Having regard to the experience gained from the above pilot scheme, we will conduct a trial on collection of domestic food waste in Sha Tin to test the operational and facilitation requirement for carrying out separation at source, collection and recycling of domestic food waste at different types of private and public housing estates, villages and domestic/commercial buildings. We are seeking funding approval from the Legislative Council for construction of the Organic Resources Recovery Centre Phase 2 (ORRC2). Upon the commissioning of the ORRC2, we will not only be able to further extend the free food waste collection service to more C&I establishments, but will also allocate part of its

treatment capacity to recycle the domestic food waste collected for free from the households and villages within the area.

The implementation schedule of the above free food waste collection services will largely depend on the completion dates of the food waste recycling facilities. With the gradual completion of such facilities in future, we plan to extend the food waste collection services to cover all districts and sectors in Hong Kong in a prompt manner.

The estimated expenditure for implementing the pilot scheme to provide free food waste collection service in 2019-20 is about \$55 million.

7 additional non-directorate professional staff of the EPD (including Environmental Protection Officers and Environmental Protection Inspectors) will be dedicated to implementing source separation and collection of food waste.

- End -

CONTROLLING OFFICER'S REPLY**ENB320****(Question Serial No. 4649)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding “to take forward the development of Organic Resources Recovery Centres (ORRCs) for the treatment of source-separated food waste”, would the Administration advise on the following:

- a) What were the parties, manpower and resources involved in the past 3 years?
- b) Since the commencement of operation of the ORRC, what is the average quantity of recyclable food waste processed by the ORRC per day?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 134)Reply:

- a) The Organic Resources Recovery Centre Phase 1 (O • PARK1) was completed and commissioned in July 2018, with a daily food waste treatment capacity of 200 tonnes. The relevant supervision work is absorbed by the existing establishment of the Environmental Protection Department (EPD). The expenditures involved in the past 3 financial years are tabulated below:

Year	Capital cost (\$m)	Operating expenditure (\$m)
2016-17	491	-
2017-18	365	-
2018-19	196	13

The EPD is seeking funding approval from the Legislative Council for detailed design and construction works of the Organic Resources Recovery Centre Phase 2 (ORRC2). If the funding is approved and the contract is awarded in the first half of 2019, the ORRC2 is expected to be commissioned in 2022 the earliest, with a daily food waste treatment capacity of 300 tonnes. The EPD is conducting an engineering feasibility study and an Environmental Impact Assessment for the ORRC Phase 3 (ORRC3). The ORRC3 is anticipated for commissioning in 2026 with a daily food waste treatment capacity of 300 tonnes. We will continue to identify sites for developing the

remaining phases of ORRC. In the past 3 financial years, the preparatory work for the ORRC2 and ORRC3 was absorbed by the existing establishment of the EPD. The relevant expenditures are tabulated below:

Year	ORRC2 (\$'000)	ORRC3 (\$'000)
2016-17	450	0
2017-18	1,500	0
2018-19	680	2,600

- b) With the adoption of biodegradation technologies in the O • PARK1, food waste is not only treated properly, but is also turned into energy through biogas generation, and the residue produced after anaerobic digestion will also be converted into compost. During the initial operation of the O • PARK1, it is necessary to gradually increase the amount of food waste treated to ensure that there is sufficient time for the micro-organisms used to degrade food waste in the anaerobic tanks to grow steadily. At present, the quantity of food waste being treated at the O • PARK1 is about 100 tonnes per day, and will gradually be increased to the design capacity of the facility.

- End -

CONTROLLING OFFICER'S REPLY

ENB321

(Question Serial No. 4650)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “to implement the South East New Territories Landfill Extension Scheme and the North East New Territories Landfill Extension Scheme”, would the Administration advise on the following:

- a) What were the parties, manpower and resources involved in the past 3 years?
- b) Are there measures and technologies to mitigate the odour problem in the vicinity of the landfills? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 135)

Reply:

a) The implementation of the South East New Territories Landfill Extension Scheme and the North East New Territories Landfill Extension Scheme is mainly undertaken by the Environmental Infrastructure Division of the Environmental Protection Department (EPD). We do not have a separate breakdown on the manpower resources required for individual tasks.

b) In implementing the landfill extension schemes, we will continue to strictly comply with the requirements stipulated under the relevant environmental impact assessment reports and environmental permits. Key measures to mitigate the odour problem of landfill operation include:

- (i) minimising the size of tipping areas as far as practicable;
- (ii) covering the waste at the end of daily operation to reduce dispersion of odour;
- (iii) covering inactive tipping areas with impermeable temporary liners to further minimise dispersion of odour;
- (iv) installing landfill gas extraction wells and mobile landfill gas flaring units to enhance the collection and treatment of landfill gas so as to prevent the dispersion of landfill gas and associated odour;
- (v) setting up deodorizers to alleviate the odour; and
- (vi) providing full-body vehicle washing facilities and wheel washing facilities to reduce

the environmental hygiene problem which may arise from vehicles leaving the landfills.

In addition, landfill contractors are required to conduct regular environmental monitoring, including setting up environmental monitoring points at specified locations inside and in the vicinity of the landfills for environmental parameters such as air (including odour, dust, etc.), water and noise. The EPD staff and independent consultants on site will also monitor the operation of the landfill contractors and their environmental performance.

- End -

CONTROLLING OFFICER'S REPLY

ENB322

(Question Serial No. 4651)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “continue to implement various air quality improvement measures outlined in *A Clean Air Plan for Hong Kong*”, would the Administration advise on the following:

- a) What were the parties, manpower and resources involved in the past 3 years?
- b) What is the progress?
- c) What is the implementation timetable?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 136)

Reply:

The Environmental Protection Department (EPD) continues to implement various measures outlined in *A Clean Air Plan for Hong Kong*. The details are set out in the table below.

Details of the implementation of various measures outlined in A Clean Air Plan for Hong Kong by the EPD in the past 3 years

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
Vehicles			
1. Encouraging the use of environment-friendly (EF) commercial vehicles	<p>Since April 2008, the Government has launched the Tax Incentives Scheme for EF Commercial Vehicles to encourage vehicle owners to choose EF commercial vehicles with exhaust emissions that out-perform the prevailing statutory emission standards.</p> <p>The qualifying standards for EF commercial vehicles are reviewed and updated annually in the light of vehicle technological advancement such that the tax incentive is available only to vehicles of outstanding environmental performance.</p>	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	From implementation of the Tax Incentives Scheme for EF Commercial Vehicles to the end of February 2019, the number of newly registered EF commercial vehicles was about 59 000 and the amount of first registration tax concession was about \$1.6 billion.
2. Pilot Green Transport Fund (PGTF)	The PGTF was set up in March 2011 for application by the public transport sectors, goods vehicle operators and charitable/ non-profit making organisations to try out green innovative transport technologies.	<p>Funding of \$300 million was approved for setting up the Fund. As at the end of February 2019, the total amount of subsidy approved was about \$139 million.</p> <p>The relevant workload has been partly absorbed with the existing resources of the EPD. Moreover, 4 additional five-year time-limited posts (until end of March 2021; including 1 Senior Environmental Protection Officer, 1</p>	<p>The PGTF can promote a wider use of green innovative transport technologies which help improve roadside air quality and reduce greenhouse gas emission.</p> <p>As at the end of February 2019, the PGTF has approved 139 trials, involving 105 electric commercial vehicles (including 77 light goods vehicles, 21 single-deck buses, 3 light buses, 3 taxis and 1 medium goods vehicle (tractor)) and 89 hybrid commercial vehicles</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
		Environmental Protection Officer, 1 Environmental Protection Inspector and 1 Assistant Clerical Officer) have been created to undertake the relevant work.	(including 48 light goods vehicles, 28 medium goods vehicles, 11 light buses and 2 single-deck buses), 1 set of solar air-conditioning system for a bus, 4 sets of electric inverter air-conditioning system for buses, 3 diesel-electric propulsion systems for ferries and 1 seawater scrubber for a ferry.
3. Trial of electric buses	Funding was approved to fully subsidise the franchised bus companies to procure 36 single-deck electric buses (including 8 supercapacitor buses and 28 battery-electric buses) for conducting two-year trials on different routes.	Funding of \$180 million was approved in 2012 for conducting the trials. The relevant workload has been partly absorbed with the existing resources of the EPD and the TD. The EPD and the TD have created 3 two-year time-limited posts (until end of March 2014; including 1 Environmental Protection Officer, 1 Senior Environmental Protection Inspector and 1 Motor Vehicle Examiner I) to undertake the relevant work. Afterwards, the TD has further created a four-year time-limited Transport Officer I post (until end of 2020) to cope with the relevant work of the trials.	At present, 26 battery-electric buses and 6 supercapacitor buses have commenced operation. The remaining electric buses are expected to commence operation progressively in 2019.
4. Phasing out pre-Euro IV diesel commercial vehicles (DCVs)	The EPD launched an incentive-cum-regulatory scheme in March 2014 with the aim of progressively phasing out some 82 000 pre-Euro IV DCVs by end of 2019. Moreover, the EPD has also set a limit	Funding of about \$11.4 billion was approved for implementation of the ex-gratia payment scheme. The relevant workload has been partly absorbed with the existing resources of	As at the end of February 2019, about 67 900 pre-Euro IV DCVs (i.e. about 83% of the eligible vehicles) have been retired under the ex-gratia payment scheme, involving an ex-gratia payment of about \$9.1 billion.

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	<p>on the service life of DCVs newly registered on or after 1 February 2014 at 15 years.</p>	<p>the EPD and the TD. Moreover, the EPD has created 3 time-limited posts (from 2013-14 to 2019-20), including 1 Senior Environmental Protection Officer, 1 Environmental Protection Officer and 1 Environmental Protection Inspector, to implement the ex-gratia payment scheme. In addition, the TD has created in phases a maximum of 25 time-limited posts (reduced to 18 in 2019-20; including 1 Senior Executive Officer, 1 Executive Officer I, 1 Executive Officer II, 2 Clerical Officers, 8 Assistant Clerical Officers, 1 Motor Vehicle Examiner I, 1 Motor Vehicle Examiners II and 3 Vehicle Testers) in the above years according to the progress of the scheme to handle the applications for the ex-gratia payment scheme.</p>	<p>The phasing out of pre-Euro IV DCVs contributed to the substantial reduction of RSP and NO_x from vehicles.</p>
<p>5. Strengthening the control of emissions from petrol and liquefied petroleum gas (LPG) vehicles</p>	<p>The EPD has been using roadside remote sensing equipment to identify petrol and LPG vehicles emitting excessively since 1 September 2014. For any vehicle found emitting excessively, the EPD will issue an Emission Testing Notice to its owner. The owner is required to rectify the excessive emission problem and send the vehicle to a Designated Vehicle Emission Testing Centre for an emission test with the aid of a chassis</p>	<p>The relevant workload has been partly absorbed with the existing resources of the EPD. In addition, the EPD will create 1 Environmental Protection Inspector post in 2019-20 to enhance its work on the control of emissions.</p>	<p>As at the end of February 2019, the EPD has monitored some 3.08 million vehicle counts and issued about 17 000 Emission Testing Notices requiring the owners to repair and to rectify the excessive emissions of their vehicles. During the above period, the licences of a total of 211 vehicles were cancelled for failing the emission test. Another 899 vehicles were scrapped by their owners voluntarily. The percentage of petrol vehicles emitting excessively has</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	<p>dynamometer within 12 working days so as to confirm the rectification of the excessive emission problem. If the owner fails to send the vehicle to the testing centre, or the vehicle fails to pass the emission test, the licence of the vehicle concerned will be cancelled by the TD.</p>		<p>reduced from about 10% to 5%, while the percentage of LPG vehicles emitting excessively has reduced from about 80% to 20% from 2014 to 2018. The EPD has strengthened the use of roadside remote sensing equipment progressively since 2018, with the maximum number of monitoring points operated each day increased from 3 previously to 5 currently.</p>
<p>6. Setting up franchised bus low emission zones (FBLEZs)</p>	<p>To improve roadside air quality and protect public health, the Government set up FBLEZs at the busy road sections in Causeway Bay, Central and Mong Kok at the end of 2015, allowing only low emission franchised buses (including buses of Euro IV or above, or Euro II and III buses retrofitted with SCR devices and diesel particulate filters) to run in these zones.</p>	<p>This is part of the EPD's routine work on improving air quality. There is no separate breakdown on the expenditure involved.</p>	<p>3 FBLEZs were set up at the end of 2015. Starting from April 2016, all franchised bus companies have confirmed that they have sufficient low emission buses to run in FBLEZs. According to the reports submitted by the franchised bus companies, as of December 2018, the overall compliance rate was about 99.7%. In case of traffic congestion, vehicle breakdowns and traffic accidents, etc., the franchised bus companies may need to deploy non-low emission buses to run in the FBLEZs occasionally in order to maintain normal bus services. However, these exceptional cases will be reduced as the franchised bus companies are acquiring more new buses progressively.</p>
<p>7. Implementing Euro VI emission standards for newly registered</p>	<p>The Government has tightened in phases by vehicle type the emission standards for newly registered vehicles</p>	<p>This is part of the EPD's routine work on improving air quality. There is no separate breakdown on the expenditure</p>	<p>Compared with their Euro V counterparts, Euro VI heavy duty diesel vehicles emit about 80% less NOx and</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
vehicles	to Euro VI starting from 1 July 2017, and has tightened the emission standards for newly registered diesel private cars to California LEV III starting from 1 October 2017.	involved.	50% less RSP while Euro VI light duty diesel vehicles emit about 55% less NO _x .
8. Subsidising franchised bus companies to retrofit Euro II and III franchised buses with selective catalytic reduction (SCR) devices	Funding was approved in 2013 to fully subsidise the franchised bus companies to retrofit eligible Euro II and III franchised buses with SCR devices for upgrading their emission performance to Euro IV or above level.	The total expenditure on retrofitting franchised buses with SCR devices was about \$197 million. The relevant workload has been partly absorbed by deploying existing resources. In addition, the EPD and the TD have created 4 time-limited posts (until end of 2016; including 1 Senior Environmental Protection Officer, 1 Environmental Protection Officer, 1 Transport Officer I and 1 Motor Vehicle Examiner II) to take up the work.	1 030 Euro II and III franchised buses have been retrofitted with SCR devices to upgrade their emission performance to Euro IV or above level. All the retrofitting was completed at the end of 2017.
Vessels			
9. Controlling the sulphur content of locally supplied marine light diesel	The sulphur content of locally supplied marine light diesel has been capped at 0.05% since 1 April 2014.	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	The sulphur dioxide (SO ₂) and RSP emissions from local vessels were reduced through implementing this measure.
10. Requiring ocean-going vessels (OGVs) to switch to low sulphur fuel while at berth in Hong Kong waters	The EPD implemented the Fuel at Berth Regulation on 1 July 2015, requiring OGVs to switch to low sulphur fuel with sulphur content not exceeding 0.5% while at berth in Hong Kong. The Port Facilities and Light Dues Incentive Scheme which was launched	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	As at the end of March 2018, a total of some 62 500 OGV-calls have their port facilities and light dues reduced for switching to low sulphur fuel while berthing in Hong Kong, which accounted for about 44% of vessel arrivals. After the regulation came into effect, the

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	<p>in September 2012 to encourage the use of low sulphur fuel by OGVs while berthing in Hong Kong ended on 31 March 2018.</p> <p>As a new regulation requiring vessels to use compliant fuel starting from 1 January 2019 already covers the scope of control under the Fuel at Berth Regulation, the Fuel at Berth Regulation has been repealed.</p>		<p>average concentration of SO₂ recorded at the Kwai Chung general Air Quality Monitoring Station during the period from 2016 to 2017 was 59% lower than that recorded before the implementation of the regulation, indicating that the regulation has taken effect in improving the air quality in the vicinity of the container terminals.</p>
11. Requiring vessels to use compliant fuel	<p>Vessels are required to use compliant fuel (including low sulphur fuel with sulphur content not exceeding 0.5%) within Hong Kong waters starting from 1 January 2019 to dovetail with the control of the marine emission control areas in Mainland waters.</p>	<p>The relevant work is undertaken by the existing manpower and resources of the EPD. There is no separate breakdown on the expenditure involved.</p>	<p>As at the end of February 2019, the EPD has conducted surprise inspections to 32 OGVs. The results showed that all OGVs complied with the regulation and had switched to use low-sulphur marine fuel before entering Hong Kong waters.</p>
Other emission sources			
12. Controlling the emissions from the power sector	<p>The EPD has formulated Technical Memorandums (TMs) in accordance with the Air Pollution Control Ordinance to stipulate the air pollutant emission caps for the power sector.</p> <p>Since 2010, the EPD has successively promulgated 7 TMs to progressively tighten the emission caps of SO₂, NO_x and RSP for the power sector.</p>	<p>This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.</p>	<p>The Seventh TM was issued in November 2017, setting the emission caps for the power sector for 2022 and onwards. Compared with the emission caps under the First TM, the annual total emission caps for SO₂, NO_x and RSP set out in the Seventh TM reduced the emissions by 79%, 59% and 61% respectively.</p> <p>The Government approved the new five-year development plans of the two</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
			<p>power companies in July 2018. Each of the two power companies has planned to construct a new gas-fired generating unit of its own, which will be commissioned in 2022 and 2023 respectively. After the commissioning of all new gas-fired generating units, the percentage of local gas-fired electricity generation will be further increased to about 55%.</p> <p>We have started the review of the Seventh TM to further tighten the emission caps for power plants.</p>
<p>13. Controlling the emissions from non-road mobile machinery (NRMMs)</p>	<p>Starting from 1 June 2015, NRMMs (including regulated machines and non-road vehicles) newly sold and leased for use in Hong Kong have to comply with the statutory emission standards. NRMMs that were in use in Hong Kong when the legislation came into effect were exempted from the new requirements.</p>	<p>This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.</p>	<p>Starting from 1 December 2015, all NRMMs used in construction sites, airport, container terminals and other specified locations are required to bear approval or exemption labels issued by the EPD. As at the end of January 2019, labels were issued to a total of some 50 500 NRMMs.</p> <p>Currently, the statutory emission standards for regulated machines and non-road vehicles are EU Stage IIIA and Euro VI standards (or its equivalent standards) respectively. The Government has tightened the statutory emission standards for some non-road vehicles to Euro VI in phases starting from 1 January 2019 to tie in with the latest emission standards for newly registered</p>

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
			road vehicles.
14. Regulating the Volatile Organic Compounds (VOC) content limits of certain products	The EPD has regulated the VOC contents of certain products through legislation since 1 April 2007. The legislation was amended in 2009, 2017 and 2018. At present, there are 172 types of regulated products, including architectural paints, printing inks, vehicle refinishing paints, vessel and pleasure craft paints, adhesives, sealants, fountain solutions, printing machine cleaning agents and 6 broad categories of selected consumer products.	This is part of the EPD's routine work on improving the air quality. There is no separate breakdown on the expenditure involved.	We will continue to explore other feasible measures such as reviewing the feasibility of tightening the VOC content limits of regulated architectural paints and imposing VOC content limits on consumer products which are not regulated, and will also collect views from relevant trades and stakeholders in this regard.
Regional Collaboration			
15. Mid-term review study on the 2015 and 2020 air pollutant emission reduction targets	The progress on emission reduction of major air pollutants in the Pearl River Delta (PRD) region has been reviewed in order to provide a robust scientific basis for concluding the emission reduction results of the two places for 2015 and finalising the emission reduction targets for 2020.	The study was undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	Hong Kong (HK) and Guangdong (GD) governments set the 2015 emission reduction targets and the 2020 emission reduction ranges for the PRD region in November 2012, and rolled out various emission reduction measures under the Pearl River Delta Regional Air Quality Management Plan (RAQMP). The two sides commenced the joint mid-term review study in February 2015 and released the results of the study at the end of 2017, which concluded the achievements of emission reduction in 2015 and finalised the emission reduction targets for 2020.

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
16. Guangdong-Hong Kong-Macao Joint Regional PM _{2.5} (fine suspended particulates) Study	The Study aims to understand the formation mechanisms and control of PM _{2.5} pollution in the PRD Region, so as to provide a scientific basis for the formulation of further air quality improvement control strategies to improve regional air pollution problems.	The HK side commissioned a consultant to conduct field sampling, chemical analysis and air quality modelling, etc. The total expenditure was about \$9 million. There is no separate breakdown on the manpower resources and expenditure for the Study.	The Study began in late 2014. GD, HK and Macao completed concurrent field sampling, chemical analysis, air quality modelling and integrated analysis, etc. The Study was completed in 2018.
17. Pearl River Delta (PRD) Regional Air Quality Management Plan (RAQMP)	HK and GD have implemented a host of emission reduction measures targeting at key emission sources, including power plants, vehicles and industrial facilities, etc., as well as regional air quality monitoring.	The RAQMP is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	<p>The RAQMP has been an ongoing collaboration initiative drawn up since December 2003. The annual average levels of SO₂, NO₂ and RSP measured by the PRD Regional Air Quality Monitoring Network (the Network) in 2017 recorded a decrease by 77%, 26% and 34% respectively as compared with 2006. This indicates an improvement in regional air quality brought about by the emission reduction measures implemented by GD and HK in recent years.</p> <p>The Network was enhanced by GD, HK and Macao in September 2014 to provide real-time air quality information of the PRD Region.</p>
18. Cleaner Production Partnership Programme	Launched in April 2008, the Cleaner Production Partnership Programme (the Programme) encourages and facilitates Hong Kong-owned factories in GD and HK to adopt cleaner production	The Government's expenditure for implementing the Programme from 2008-09 to 2018-19 was around \$280 million.	As at the end of February 2019, over 3 100 funding projects were approved and more than 540 awareness and technology promotion activities were organised under the Programme,

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	technologies and practices through funding support and technology promotion activities, thereby contributing to improving the regional air quality. The Programme has been extended until 31 March 2020.	This is part of the EPD's routine work. There is no separate breakdown on the manpower and expenditure involved in this Programme.	attracting over 48 000 participants.
19. Routine monitoring of VOC in the PRD Regional Air Quality Monitoring Network	To step up the control of ozone in the PRD region, GD and HK have adopted a progressive approach to include routine monitoring of VOC in the PRD Regional Air Quality Monitoring Network in 3 phases from 2017 to 2020.	The costs involved for outsourcing the monitoring work at the monitoring station in HK in the past 3 years were about \$3.2 million.	HK and GD have completed the work in Phase 1 in 2017, including considering the coverage and locations of stations for routine VOC monitoring, selecting the parameters to be monitored and monitoring methods, and compiling the standard operating procedures and quality assurance/quality control protocol. Both sides are now undertaking the work in Phase 2, i.e. each selecting one of its stations in the regional network to carry out a pilot of online VOC monitoring and preliminary data analysis in 2018-19 based on the coverage of monitoring stations and the quality assurance/quality control protocol confirmed in Phase 1. For Phase 3 in 2020, both sides will comprehensively review the experiences gained in Phase 2, including the operation of the monitoring equipment, expenditure, data quality and the preliminary analysis results, etc., and by making reference to relevant national standards and guidelines, fine tune the monitoring protocol and consider

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
			increasing the number of VOC routine monitoring stations.
20. Regional air quality forecasting	Targeting at the heavily polluted weather in the PRD region, GD and HK will conduct air quality forecasting meetings at the technical level to jointly forecast the development of heavily polluted weather in the region, analyse and identify the causes so as to formulate and adopt appropriate preventive measures in advance.	The study is undertaken by the EPD with its existing manpower and resources. There is no separate breakdown on the manpower resources and expenditure for the study.	HK and GD are currently increasing technical exchanges and trainings in air pollution forecasting to enhance forecasting capability.
Review of the Air Quality Objectives			
21. Review of the Air Quality Objectives (AQOs)	<p>The current AQOs came into effect on 1 January 2014. According to Section 7A of the Air Pollution Control Ordinance (Cap. 311), the Secretary for the Environment is required to review the AQOs at least once in every 5 years and submit a review report to the ACE.</p> <p>The Environment Bureau (ENB) embarked on the AQOs Review (the Review) in May 2016, completed the Review in 2018, and subsequently submitted the review report to the ACE and consulted the EA Panel of the LegCo in March 2019. The ENB will conduct a 3-month public consultation on the review findings in due course.</p> <p>After completing the public</p>	<p>We set up an AQOs Review Working Group (Working Group), led by the Under Secretary for the Environment, to conduct the Review. Members of the Working Group include air scientists, business sector representatives, professional bodies, green groups and relevant government representatives, etc. All non-government members of the Working Group took part in the Review on a voluntary basis.</p> <p>As for government members, the work is undertaken with the existing manpower and resources and therefore there is no separate breakdown on the expenditure involved.</p>	The Review was completed in December 2018. The ENB submitted the review report to the ACE and consulted the EA Panel of the LegCo in March 2019.

Policies/Measures	Details and Implementation Schedules	Expenditure and Manpower Involved	Progress and Effectiveness
	consultation, we will report the results to the ACE and the EA Panel of the LegCo expeditiously. If the AQOs are to be tightened, we shall submit an amendment bill to the LegCo with a view to implementing the new AQOs as soon as possible.	Besides, the EPD commissioned a consultancy study through open tender in November 2016 to assist in the Review. The consultancy contract fee was about \$7 million.	

- End -

CONTROLLING OFFICER'S REPLY

ENB323

(Question Serial No. 4652)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Air

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding “continue to collaborate with Guangdong and Macao to include routine volatile organic compounds monitoring in the Pearl River Delta regional air quality monitoring network”, would the Administration advise on the following:

- a) What are the parties, manpower and resources involved in such work?
- b) What is the detailed work schedule?
- c) What is the progress of the joint regional study on fine suspended particulates (FSP) (PM_{2.5})?

Asked by: Hon LEE Kok-long, Joseph (LegCo internal reference no.: 137)

Reply:

a) The work to include routine volatile organic compounds (VOC) monitoring at the Hong Kong stations in the Pearl River Delta (PRD) regional air quality monitoring network is undertaken by the Environmental Protection Department (EPD) with its existing manpower and resources.

b) The plan to include routine VOC monitoring in the PRD regional air quality monitoring network is divided into 3 phases. The work in Phase 1 included considering the distribution and locations of stations for routine VOC monitoring, selecting the parameters to be monitored and monitoring methods, compiling the standard operating procedures and the quality assurance/quality control (QA/QC) protocol. It was completed in 2017. We are now (i.e. in 2018-19) implementing Phase 2. Based on the VOC monitoring station distribution and the QA/QC protocol confirmed in Phase 1, both parties have each selected one of its stations in the regional network to carry out a pilot of online VOC monitoring and preliminary data analysis. For Phase 3 which will commence in 2020, both sides will comprehensively review the experience gained in Phase 2, including monitoring equipment operation, expenditure, data quality and preliminary analysis results, etc. and by making reference to relevant national standards and guidelines, and will fine tune the monitoring plan and consider increasing the number of VOC routine monitoring stations.

c) The Guangdong-Hong Kong-Macao Joint Regional PM_{2.5} Study began in November 2014. Concurrent sampling in the three places, chemical analysis, enhancement of the PRD region emission inventory, air quality modelling and integrated data analysis were completed as scheduled. The Study was completed at the end of 2018 and its Summary Report has been uploaded to the EPD's webpage. The Study found that secondary particulates and vehicle emissions were the major sources of PM_{2.5} in Guangdong PRD region, Hong Kong and Macao and that the contribution of local pollution was generally lower than that of non-local pollution. The Study also analysed the meteorological conditions that had the greatest impact on causing pollution episodes. The Study helps us understand the principles of formation and control of regional PM_{2.5} pollution in the PRD region. It provides a scientific basis for the formulation of policy to address regional air pollution problems.

- End -

CONTROLLING OFFICER'S REPLY

ENB324

(Question Serial No. 3487)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please advise on the current number of water dispensers at government premises, as well as the expected number in the coming year. How many of these water dispensers are mainly available for use by the public? Which department is currently responsible for monitoring the water quality of water dispensers at government premises to ensure that the bacterial count and metal content in the water comply with safety standards?

Asked by: Hon LEUNG Mei-fun, Priscilla (LegCo internal reference no.: 67)

Reply:

Currently, there are a total of over 10 000 water dispensers at government premises, of which about 2 700 mainly serve the public. These water dispensers are mostly installed at the active leisure facilities managed by the Leisure and Cultural Services Department, such as sport centres, sport grounds and swimming pools. To inculcate the “bring your own bottle” culture and reduce the consumption of plastic bottled water, the Chief Executive announced in the 2018 Policy Address that the Government would install more water dispensers at government venues with public access. The initial target is to install 500 more water dispensers in 3 years (i.e. by 2021-22), so that the total number will increase to 3 200 units.

Drinking water provided by water dispensers at government venues usually comes from tap water or water bottles. The quality of the water supplied to the connection point at the building/lot boundary by the Water Supplies Department (WSD) conforms with the Hong Kong Drinking Water Standards (namely the Guidelines for Drinking-water Quality recommended by the World Health Organization). To ensure that the water is safe to drink, works departments will install water dispensers and plumbing installations at existing government venues in accordance with the guidelines issued by the WSD and relevant legislative requirements, including the Practice Guide on Carrying Out Plumbing Works and the Waterworks Ordinance etc.; and obtain prior approval from the WSD before putting the water dispensers into service. These water dispensers are generally equipped with filter cartridges/UV sterilisers to ensure that the water is hygienic. Government departments that

manage government venues will undertake regular maintenance, such as inspections and replacement of filter cartridges and UV sterilisers, and clean the water dispensers regularly in accordance with the manufacturers' guidelines so as to ensure water supplied from water dispensers is hygienic. Besides, the correct use of water dispensers by users is very important. According to the Department of Health (DH)'s advice, when using water dispensers, users should avoid contacting their mouthpiece and protective guard; should not spit on them and wash hands with the water of the dispensers to avoid contaminating them. The relevant departments will also display the DH's advice at the venues to remind the public how to use the water dispensers correctly.

As regards bottled water, government departments procure them under a bulk purchase contract arranged by the Government Logistics Department. The contract has stipulated that the bottled water provided by the supplier must comply with all the applicable legislation and standards in Hong Kong, including the Public Health and Municipal Services Ordinance and the Microbiological Guidelines for Food. The supplier must conduct regular water sampling tests to ensure water safety. User government departments will also arrange regular maintenance and cleansing for the water dispensers in accordance with the manufacturers' guidelines.

In case site staff of government venues spot any problems with the water dispensers such as fault, damage, rust, abnormal operation, etc., they will report to the works departments for follow up. The relevant works departments will also conduct regular inspections of water dispensers to ensure that they function properly.

- End -

CONTROLLING OFFICER'S REPLY

ENB325

(Question Serial No. 4059)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please advise on the costs for processing each tonne of waste disposed of at landfills in the past 5 years.

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 126)

Reply:

The average costs for disposal of waste at landfills in the past 5 years are tabulated below:

Year	(\$/tonne)
2014-15(Actual)	197
2015-16(Actual)	184
2016-17(Actual)	194
2017-18(Actual)	214
2018-19(Projected)	208

- End -

CONTROLLING OFFICER'S REPLY**ENB326****(Question Serial No. 4060)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide the numbers of complaints about illegal disposal of construction waste by the 18 District Council districts in the past 3 years. What were the details of handling the complaints and the results?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 127)Reply:

The numbers of public complaints about illegal disposal of construction waste (including fly-tipping of construction waste on government land and land filling of construction waste on private land) received by the Environmental Protection Department (EPD) in the past 3 years (2016 to 2018) are tabulated below:

District	Number of public complaints*		
	2016	2017	2018
Central & Western	133	123	83
Eastern	70	53	50
Southern	35	43	42
Wan Chai	113	124	95
Kowloon City	155	158	192
Kwun Tong	78	82	71
Sham Shui Po	190	184	228
Wong Tai Sin	21	29	28
Yau Tsim Mong	276	300	247
Islands	66	53	58
Kwai Tsing	88	90	89
North	135	100	96
Sai Kung	112	98	160
Sha Tin	26	70	52
Tai Po	97	113	137

District	Number of public complaints*		
	2016	2017	2018
Tsuen Wan	99	116	87
Tuen Man	8	62	47
Yuen Long	260	205	152
Total	1 962	2 003	1 914

Note: * Including multiple complaints which may arise from a single case.

The EPD will follow up on each of the public complaint cases, including conducting on-site inspection, collecting evidence for prosecution, requesting the relevant departments to promptly clear the construction waste disposed of, and analysing intelligence of the complaint cases in order to deploy enforcement strategies, such as considering the installation of surveillance camera systems, etc.

Apart from the above, the EPD, through regular inter-departmental collaboration meetings, joins hands with the relevant departments to closely monitor and take various regulatory measures and enforcement actions against illegal disposal of construction waste. In order to step up efforts in combating illegal disposal of construction waste, the EPD has progressively installed surveillance camera systems at illegal construction waste disposal black spots on government land and public places since 2016 to facilitate enforcement and enhance the deterrence against illegal disposal of construction waste. In addition, the EPD has also made use of different channels to enhance the deterrent effect and gradually reduce illegal disposal of construction waste at black spots. These include issuing press releases to raise public awareness of environmental protection, encouraging the public to report illegal disposal of construction waste, launching joint publicity activities with the relevant District Councils or the local communities, and displaying warning posters at prominent places near the locations with surveillance camera systems installed, etc.

In the past 3 years, the EPD issued a total of 104 Fixed Penalty Notices and prosecuted 282 cases by summonses against illegal disposal of construction waste. The amount of construction waste illegally disposed of in public places and on government land cleared by the Government in 2018 has been significantly reduced by 45% as compared with 2017. This shows signs of improvement by taking relevant regulatory measures and enforcement actions, which have helped reduce the illegal disposal of construction waste.

- End -

CONTROLLING OFFICER'S REPLY**ENB327****(Question Serial No. 4061)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide the number of complaints about illegal disposal of regulated electrical equipment by the 18 District Councils in the past year. What were the details of handling the complaints and the results?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 128)Reply:

In 2018, the Environmental Protection Department (EPD) received a total of 37 complaints about illegal disposal of waste regulated electrical equipment in the 18 districts of Hong Kong. The details are as follows:

	District Council district	No. of Complaints
1.	Central & Western	2
2.	Wan Chai	2
3.	Eastern	1
4.	Southern	1
5.	Yau Tsim Mong	1
6.	Sham Shui Po	2
7.	Kowloon City	1
8.	Wong Tai Sin	1
9.	Kwun Tong	1
10.	Kwai Tsing	1
11.	Tsuen Wan	0
12.	Tuen Mun	2
13.	Yuen Long	8
14.	North	10
15.	Tai Po	1
16.	Sha Tin	2
17.	Sai Kung	1
18.	Islands	0

	District Council district	No. of Complaints
	Total	37

The EPD has been vigorously combating illegal disposal of waste, especially the disposal of construction waste and commercial and industrial waste. Apart from conducting irregular surprise inspections at waste disposal sites in various districts, the EPD has also installed surveillance camera systems at some waste disposal black spots to facilitate law enforcement. The EPD has also stepped up efforts in combating illegal disposal of e-waste. Before and after the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment took effect, the EPD joined other relevant government departments to conduct inspections at the waste disposal black spots and recycling sites across the territory to prevent possible illegal disposal of e-waste. In addition, if abandoned e-waste is found on street, the Food and Environmental Hygiene Department will also conduct prompt clearance, and make appropriate arrangements to turn waste into resources.

- End -

CONTROLLING OFFICER'S REPLY

ENB328

(Question Serial No. 4062)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please advise on the number of visitors and income received by the T • PARK, a sludge treatment facility, since its opening.

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 129)

Reply:

The Environmental Education Centre of the T • PARK has been open to the public since 29 June 2016. The number of visitors each year is set out below:

Year	Number of visitors
June to December 2016	41 990
2017	79 785
2018	79 185

The Environmental Education Centre of the T • PARK is open to members of the public for visit and use free of charge, and so it does not have any income in this respect.

- End -

CONTROLLING OFFICER'S REPLY

ENB329

(Question Serial No. 4063)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

What was the amount of sludge processed at the Tuen Mun Sludge Treatment Facility (T • PARK) in each of the past 3 years?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 130)

Reply:

The amount of sewage sludge treated at the T • PARK in each of the past 3 years is set out below:

Year	Amount of sewage sludge treated (tonne)
2016	418 757
2017	386 208
2018	392 221

- End -

CONTROLLING OFFICER'S REPLY

ENB330

(Question Serial No. 4064)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

How many projects were funded by the Recycling Fund in each of the past 3 years? What were the content of the projects and the quantities of various types of recyclables processed in the projects? What were the respective amounts of funding allocated for various types of recyclables? What is the number of applications being processed at present?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 131)

Reply:

The Government launched the \$1 billion Recycling Fund in October 2015 to assist in the upgrading of the operational capabilities and efficiencies of the recycling industry. Two funding schemes have been established under the Fund, namely the Enterprise Support Programme (ESP) and the Industry Support Programme (ISP). The ESP provides project-based matching funds for individual enterprises to upgrade and expand their waste recycling operations in Hong Kong locally, including enhancing collection and separation of recyclables, adopting value-added recycling processes as well as promoting the recycled products manufactured by recyclables through commercialisation and other marketing efforts. A category of Standard Projects has been established under the ESP to facilitate the application for funding from small and medium enterprises (SMEs) by streamlining the procedures and minimising the documentation required. For the ISP, it has been established for non-profit distributing organisations such as professional bodies, trade and industry organisations, research institutes and other industry support organisations to undertake non-profit-making projects to enhance the overall capability and productivity of the recycling industry.

In the past 3 years (i.e. the financial years from 2016-17 to 2018-19 (as at 28 February 2019)), the Recycling Fund processed 465 applications, of which 191 approved, 46 rejected, 152 withdrawn by the applicant organisations of their own accord before vetting and 76 being processed. Among the approved projects, excluding 29 which have been withdrawn by the applicant organisations, a total of 162 funded projects have been or will soon be commenced, involving a total funding of about \$107 million, of which 23 are under the

ESP, 132 are for Standard Projects and 7 are under the ISP. The number of such projects approved each year is set out below:

Financial year	Number of projects approved under ESP	Number of projects approved under Standard Projects	Number of projects approved under ISP
2016-17	12	25	2
2017-18	8	69	3
2018-19 (As at 28 February 2019)	3	38	2
Total	23	132	7

The quantities of processed recyclables involved in the projects and the amounts of funding approved by the Recycling Fund in the past 3 years are set out in the table below. Some projects funded by the Recycling Fund are programmes to enhance the overall capability and productivity of the recycling industry, including providing training courses to enhance the skills of recycling practitioners, enhancing safety and health standards and certification/registration schemes, purchasing/installing equipment or machinery to promote good recycling practice and reduce nuisance, etc. As these projects do not involve any type of recyclables, they are not included in the table.

Type of recyclables	Target quantity processed ⁽¹⁾ (tonnes) ⁽²⁾			Amount of funding approved (\$m)		
	2016-17	2017-18	2018-19 (As at 28 February 2019)	2016-17	2017-18	2018-19 (As at 28 February 2019)
Construction waste	51 300	4 000	0	6.6	1.4	0
Food waste	5 700	1 300	1 400	1.6	4.5	8.0
Waste cooking oil	4 000	0	0	5.0	0	0
Waste wood	0	900	0	0	3.2	0
Waste tyres	300	2 500	0	1.2	5.0	0
Waste metals	2 000	100	32 300	13.5 ⁽³⁾	13.5 ⁽³⁾	15.3 ⁽³⁾
Waste plastics	6 000	200	100			
Waste paper	900	1 900	0			
Waste Electrical and Electronic Equipment	4 800	4 800	0			
Used furniture	1 000	0	0			
Used clothes	0	200	200			
Others (including compact discs, toner cartridges, beverage cartons and spent lubrication oil)	0	1 400	0			
Total	76 000	17 300	34 000	27.9	27.6	23.3

Notes: (1) Target quantity processed refers to the quantity of recyclables expected to be collected for the whole projects approved in that year.

(2) The figures are rounded to the nearest hundred.

(3) As some approved projects process more than 1 type of recyclables and the amounts of funding for these projects are not approved according to the type of recyclables, it is not possible to compile the statistics on the respective amounts of funding for these types of recyclables.

- End -

CONTROLLING OFFICER'S REPLY**ENB331****(Question Serial No. 4065)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

How many projects related to recycling were funded by the Environment and Conservation Fund in each of the past 3 years? What were the content of the projects and the quantities of various types of recyclables processed in the projects? What were the respective amounts of funding allocated for various types of recyclables? What is the number of applications in respect of projects related to recycling that are being processed at present? What is their percentage in the total number of applications?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 132)Reply:

In the past 3 years, the Environment and Conservation Fund (ECF) provided funding to support a total of 100 projects related to recycling, mainly including those on the recovery of food waste from housing estates and the community, surplus food from market stall operators, retail shops and food wholesalers, glass bottles from the food and beverage sector, and waste plastics from old districts. The relevant approved funding and the recovery targets for recyclables are set out in the table below:

Year	Number of projects approved	Approved funding (\$m)	Recovery targets for recyclables (tonnes)				
			Food waste	Surplus food	Glass bottle ¹	Waste plastics ²	Others
2016	34	79.00	322	1 378	4 088	4 065	16
2017	32	66.49	710	822	293	1 758	396
2018	34	67.68	787	3 904	0	1 465	18

Note 1: Since November 2017, the Government has been engaging glass management contractors progressively to provide waste glass container collection and treatment services. To avoid duplication of resources, projects approved for the collection of glass bottles and their recovery targets will decrease as the glass management contractors start to provide service.

Note 2: The project of “Plastic Resources Recycling Centre of EcoPark Phase II in Tuen Mun” was approved in 2016. Its recovery target for waste plastics accounted for 63% of the overall recovery target of all projects approved that year.

As the projects might involve several types of recyclables, we are unable to provide further information on the respective amounts of approved funding allocated for various types of recyclables.

In the past 3 years, the ECF received a total of 155 applications in respect of projects related to recycling. As at 31 December 2018, 12 of them (i.e. 8%) were being processed.

- End -

CONTROLLING OFFICER'S REPLY**ENB332****(Question Serial No. 4066)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide the latest timetable for the development of the network of Community Green Stations (CGSs) in 18 districts across the territory. In addition, what indicators the Government has in place to examine the effectiveness of CGSs?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 133)Reply:

The Environmental Protection Department (EPD) is continuing to take forward the development of the network of Community Green Stations (CGS) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. As at the end of 2018, 7 CGSs have progressively been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. The latest development of individual CGSs is tabulated below:

CGS	Site	Latest Development and Schedule
Sha Tin CGS	10 On Ping Street, Shek Mun	The CGS commenced operation in May 2015. In 2018, the CGS collected about 461 tonnes of recyclables, with an operating expenditure of about \$4.76 million.

CGS	Site	Latest Development and Schedule
Eastern CGS	30 Oi Shun Road, Shau Kei Wan	The CGS commenced operation in August 2015. In 2018, the CGS collected about 437 tonnes of recyclables, with an operating expenditure of about \$3.91 million.
Kwun Tong CGS	27 Sheung Yee Road, Kowloon Bay	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$4.27 million.
Yuen Long CGS	65 Tin Wah Road, Tin Shui Wai	The CGS commenced operation in January 2017. In 2018, the CGS collected about 348 tonnes of recyclables, with an operating expenditure of about \$3.46 million.
Sham Shui Po CGS	339 Tung Chau Street	The CGS commenced operation in October 2017. In 2018, the CGS collected about 394 tonnes of recyclables, with an operating expenditure of about \$4.70 million.
Tuen Mun CGS	9 Tuen Yee Street	The CGS commenced operation in September 2018. As at the end of 2018, the CGS collected about 70 tonnes of recyclables, with an operating expenditure of about \$2.10 million.
Kwai Tsing CGS	12 Tam Kon Shan Road, Tsing Yi	The CGS commenced operation in November 2018. As at the end of 2018, the CGS collected about 40 tonnes of recyclables, with an operating expenditure of about \$770,000.
Tai Po CGS	25 Dai Wah Street	The tendering for the operation contract is underway. The CGSs are expected to commence operation within 2019.
Islands CGS	1 Chung Mun Road, Tung Chung, Lantau	

CGS	Site	Latest Development and Schedule
Sai Kung CGS	Po Lam Lane, near Po Hong Road and Po Lam Road North, Tseung Kwan O	Design and construction works are in progress.
Wan Chai CGS	Wan Shing Street, near Hung Hing Road	
Tsuen Wan CGS	Hoi Shing Road, near Hoi Kok Street	The site has been confirmed and planning of construction works is in progress.
Wong Tai Sin CGS, Kowloon City CGS, Southern CGS, Yau Tsim Mong CGS, Central and Western CGS and North CGS	Site to be confirmed	We have been following up the views from District Councils. Taking into account the actual operating experience in other CGSs, we are continuing with site search and other associated preparation work.

Since their inception, the CGSs have been running smoothly. They have generally been well received by the local community and have been making good progress in providing support for community recycling. The Sha Tin CGS, the Eastern CGS, the Kwun Tong CGS and the Yuen Long CGS have all exceeded the designated requirements in the respective service contracts of the quantity of recyclables to be recovered (i.e. with the total quantity to be recovered not less than 600 tonnes in 3 years) and those relating to the organisation of educational activities. Besides, the Sham Shui Po CGS, which commenced operation in October 2017, has also been operating well, and is expected to be able to meet or even exceed the contractual requirements of the quantity to be recovered. The Tuen Mun CGS and the Kwai Tsing CGS commenced operation in September and November 2018 respectively. We will review the relevant operational statistics to monitor their operation performance. Moreover, we will take into account views from various stakeholders and make suitable adjustment to the work of the CGSs on environmental education and recycling support as and when necessary.

- End -

CONTROLLING OFFICER'S REPLY**ENB333****(Question Serial No. 4067)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide the number of visitors, the amount of various types of waste recovered, its percentage in the total amount of that type of waste recovered in Hong Kong, the frequency of conducting the work on environmental education, as well as the manpower and funding expenditure in each of the past years for each Community Green Station in various districts.

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 134)Reply:

The Environmental Protection Department is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. The total cost for capital works of all CGSs is estimated to be about \$400 million. At present, there are a total of 17 posts tasked to implement this initiative and monitor the operation of the CGSs, including 16 permanent posts and 1 time-limited post (until 2020). As at the end of 2018, 7 CGSs have progressively been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. The operating expenditures of the CGSs currently in operation are set out below:

CGS	Operating expenditure (\$'000)			
	2015	2016	2017	2018
Sha Tin CGS	3,300	2,690	4,220	4,760
Eastern CGS	2,430	3,350	3,610	3,910
Kwun Tong CGS	-	-	4,690	4,270

CGS	Operating expenditure (\$'000)			
	2015	2016	2017	2018
Yuen Long CGS	-	-	3,980	3,460
Sham Shui Po CGS	-	-	990	4,700
Tuen Mun CGS	-	-	-	2,100
Kwai Tsing CGS	-	-	-	770

From 2015 to 2018, the quantities of various types of recyclables collected, the numbers of visitors and the numbers of educational activities organised in respect of the CGSs already in operation are set out below:

	2015	2016	2017	2018
Quantity of various types of recyclables handled (kg)				
Electrical appliances and computer products	51 717	97 079	213 542	303 820
Glass bottles	103 217	483 614	1 042 536	1 555 663
Compact fluorescent lamps/fluorescent tubes	1 315	6 906	14 003	16 209
Rechargeable batteries	341	1 670	4 925	5 037
Used books	596	4 646	21 955	21 952
Clothing	1 171	2 442	27 283	19 366
Waste paper	857	3 566	39 516	90 396
Waste plastics	223	2 285	15 989	59 050
Waste metals	72	932	7 120	12 925
Number of visitors and educational activities				
Number of visitors	31 387	159 459	287 910	320 192
Number of activities	719	1 155	1 354	1 202

Note: As the figure on the amount of all types of recyclables recovered in Hong Kong is not available, the percentage of each type of recyclables recovered cannot be provided.

- End -

CONTROLLING OFFICER'S REPLY

ENB334

(Question Serial No. 4068)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please provide the amount of various types of waste recovered and its percentage in the total amount of that type of waste recovered in Hong Kong, the frequency of conducting the work on environmental education, as well as the manpower and funding expenditure in each of the past years for each of the community projects of the network of Community Recycling Centres under the Environment and Conservation Fund.

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 135)

Reply:

The Environment and Conservation Fund (ECF) provides funding support for local non-government organisations (NGOs) to set up and operate Community Recycling Centres (CRCs), so as to facilitate separation of waste for recovery by members of the public and to promote waste reduction and recycling activities at the community level. There are currently 17 CRCs, 2 community recycling vehicles and 50 collection points in Hong Kong.

The CRCs maintain close contact with local residents' groups. They not only provide collection services of recyclables, but also regularly deploy environmental protection ambassadors to promote the Source Separation of Waste Programme, set up promotion booths to disseminate messages on waste reduction and recycling, and encourage the public to participate in waste reduction, source separation and recycling of waste. As the above is the routine promotion and educational work of the CRCs, we do not keep any record on the frequency of the work on environmental education conducted by the CRCs.

In the past 5 years, the ECF provided the CRCs with a total amount of funding of \$186 million. Each project is generally funded to hire a project officer and a project assistant. Depending on the needs of an individual project, the funded organisation may hire part-time staff and/or project ambassadors. The approved funding to each CRC, the amount of various types of recyclables collected and its percentage in the total amount of that type of recyclables recovered in Hong Kong are set out in the table below:

CRC	2014 to 2018						Approved funding (\$m)
	Quantity of recyclables received (tonnes)			Percentage in the total amount of that type of recyclables recovered in Hong Kong ¹ (%)			
	Plastics	Glass	Electrical and electronic equipment	Plastics	Glass	Electrical and electronic equipment	
Central & Western Mid-Levels Owners Association – 121C Plastic Recycling Centre	401.4	106.8	14.3	0.34	0.95	0.02	16.09
Fong Chung Social Service Centre – Dynamic Plastic Waste Collection Centre	405.7	85.6	3.3	0.32	0.84	0.00	9.22
121C Society For Recycling – Causeway Bay and Wan Chai Society For Recycling Project	202.4	27.7	7.5	0.15	0.19	0.01	9.09
121C Society For Recycling – Southern District Community Recycling Centre	134.2	0.4	1.2	0.07	Not applicable	0.00	6.83
Tai Kok Tsui Resources Centre Association – Meet Up Greens	296.6	2.6	6.3	0.17	0.02	0.01	7.99
Cheung Sha Wan Kai Fong Welfare Association – Eco-Community Recycling Centre	445.9	1.6	6.5	0.34	0.01	0.01	10.45
United Labour Chi Hong Association Limited – Community Recycling Center	337.5	2.4	3.2	0.26	0.02	0.01	13.42
Boys' Brigade – Hung Hom District Waste Recovery Centre	229.9	5.2	4.3	0.15	0.04	0.01	9.78
Boys' Brigade – To Kwa Wan District Waste Recovery Centre	516.0	7.0	7.4	0.38	0.07	0.01	8.89

CRC	2014 to 2018						
	Quantity of recyclables received (tonnes)			Percentage in the total amount of that type of recyclables recovered in Hong Kong ¹ (%)			Approved funding (\$m)
	Plastics	Glass	Electrical and electronic equipment	Plastics	Glass	Electrical and electronic equipment	
East Kowloon District Residents' Committee Limited – Wong Tai Sin Community Recycling Center	485.8	13.8	38.1	0.34	0.08	0.05	11.87
Boys' Brigade – Kwai Tsing District Waste Recovery Centre	432.1	11.2	7.0	0.31	0.04	0.01	9.48
Boys' Brigade – Tsuen Wan District Waste Recovery Centre	425.4	4.9	6.5	0.31	0.04	0.01	9.39
New Opportunity Limited – Tuen Mun Environmental Centre	560.0	11.8	24.0	0.40	0.12	0.04	9.13
New Opportunity Limited – Yuen Long Environmental Education Centre	255.9	4.1	12.6	0.15	0.04	0.02	7.26
Action Health Limited – North District Recycling Centre	459.4	200.4	15.2	0.37	1.62	0.02	9.58
North District Residents Association Limited – North District Recycling Centre	172.1	Not applicable	2.8	0.12	Not applicable	0.01	9.77
Environmental Association – Ways for Plastic Recycling	682.3	208.7	16.5	0.53	1.47	0.02	8.53
Ma On Shan Youth Association – Shatin Recycle Centre 2.0 ²	172.4	6.7	7.7	0.12	0.05	0.01	9.27

CRC	2014 to 2018						Approved funding (\$m)
	Quantity of recyclables received (tonnes)			Percentage in the total amount of that type of recyclables recovered in Hong Kong ¹ (%)			
	Plastics	Glass	Electrical and electronic equipment	Plastics	Glass	Electrical and electronic equipment	
Tseung Kwan O Kai Fong Joint Association Limited – Source Separation of Domestic Waste ²	322.2	Not applicable	Not applicable	0.20	Not applicable	Not applicable	7.15
Synergy Community Service Centre – Kwun Tong Community Waste Recovery Centre ³	216.9	3.1	10.9	0.22	0.03	0.02	2.95
Ever Green Association – Hung Hom Community Recycling Project ⁴	14.7	2.2	0.6	0.01	0.03	0.00	Not applicable
Wai Ji Hong Yip Company Limited – Shamshui Po Community Waste Collection Project ⁵	5.2	Not applicable	0.3	0.01	Not applicable	0.00	Not applicable
Total⁶	7 174	706	196	5.3	5.7	0.3	186.14

Note 1: The relevant waste statistics for 2018 are still under compilation.

Note 2: The CRCs in Sha Tin and Sai Kung are operated in the form of mobile community recycling projects.

Note 3: The CRC in Kwun Tong ceased operation on 1 April 2016.

Note 4: The CRC in Hung Hom was approved before 2014 and ceased operation on 1 June 2014.

Note 5: The CRC in Sham Shui Po was approved before 2014 and ceased operation on 1 April 2014.

Note 6: The above figures may not add up to total due to rounding off.

- End -

CONTROLLING OFFICER'S REPLY**ENB335****(Question Serial No. 4069)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide the relevant statistics: the total financial and manpower support provided by the Administration in promoting the development of recovery and recycling industry in Hong Kong in the past 3 years, and its percentage in the total value of the recycling industry in Hong Kong.

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 136)Reply:

The Government attaches great importance to promoting the development of the local recovery and recycling industries, and has implemented a number of support measures specifically for the industries having regard to their needs over the years. Implementation of these measures is part of the waste management work of the Environmental Protection Department (EPD), and is undertaken by the relevant divisions/groups. We do not have a separate breakdown of the expenditure involved for such work. The overall expenditures of the EPD on waste management in the past 3 years are shown below:

Financial year	Expenditure (\$m)
2017-18	2,642
2016-17	2,356
2015-16	2,220

The Government launched the \$1 billion Recycling Fund in October 2015 to assist in the upgrading of the operational capabilities and efficiencies of the industry, thereby facilitating the sustainable development of the recycling industry, promoting the recovery and recycling of waste, turning waste into resources, and reducing the recyclables that could have been disposed of at landfills. The expenditures of the Fund in the past 3 years are set out below:

Financial year	Expenditure (\$m)
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2017-18	23.47
2016-17	36.46
2015-16	29.65

The Government does not have the data on the total value of the recycling industry in Hong Kong.

- End -

CONTROLLING OFFICER'S REPLY

ENB336

(Question Serial No. 4070)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

(1) Please provide the quantities of waste plastics recovered by the following departments or organisations using government funding in the past 3 years: projects funded by the Recycling Fund, projects funded by the Environment and Conservation Fund (ECF), three-colour recycling bins, Community Green Stations (CGSs) and others. What was the quantity of waste plastics recovered each year?

(2) Please provide the quantities of glass recovered by the following departments or organisations in the past 3 years using government funding: projects funded by the Recycling Fund, projects funded by the ECF, three-colour recycling bins, CGSs and others. What was the quantity of glass recovered each year?

(3) Please provide the quantities of waste paper recovered by the following departments or organisations using government funding in the past 3 years: projects funded by the Recycling Fund, projects funded by the ECF, three-colour recycling bins, CGSs and others. What was the quantity of waste paper recovered each year?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 137)

Reply:

In the past 3 years, the Government placed about 16 000 sets of waste separation bins throughout the territory, including public places, schools, government quarters, country parks, as well as housing estates and commercial and industrial (C&I) buildings which had participated in the Source Separation of Waste Programme. The three-colour recycling bins are used for collection of waste plastics, waste paper and metals, but not for collection of glass. Apart from the recycling bins (RBs) provided by the Government, additional RBs are also placed by many housing estates and C&I buildings on their own, and arrangements have been made by them with the downstream recyclers for the collection and treatment of all the recyclables collected by RBs. We do not have the number of these RBs, hence we do not have information on the quantities of waste plastics and waste paper collected by three-colour recycling bins.

The quantities of waste plastics recovered by the projects funded by the Recycling Fund, the projects funded by the Environment and Conservation Fund (ECF), Community Green Stations (CGSs) and other projects funded by the Government in the past 3 years (2016-2018) are tabulated below:

Project/Facility	Year/Quantity recovered (tonnes)		
	2016	2017	2018
Projects funded by the Recycling Fund ¹	8 500	200	100
Projects funded by the ECF ¹	4 065	1 758	1 465
CGSs	2	16	59
Kowloon Bay Plastic Sorting Centre ²	186	152	90 (January to May)

The quantities of glass bottles recovered by the projects funded by the ECF, CGSs and other projects funded by the Government ³ in the past 3 years (2016-2018) are tabulated below:

Project/Facility	Year/Quantity recovered (tonnes)		
	2016	2017	2018
Projects funded by the ECF ^{1,4}	4 088	293	0
CGSs	484	1 043	1 556
Voluntary glass bottle recycling programmes ^{5,6}	1 920	2 005	233
Glass management contract - Hong Kong Island and Islands District ⁵	--	--	3 874
Glass management contract - the New Territories ⁵	--	--	3 216
Glass management contract - Kowloon ⁶	--	--	1 607

The quantities of waste paper recovered by the projects funded by the Recycling Fund, the projects funded by the ECF and CGSs in the past 3 years (2016-2018) are tabulated below:

Project/Facility	Year/Quantity recovered (tonnes)		
	2016	2017	2018
Projects funded by the Recycling Fund ¹	900	1 900	0
Projects funded by the ECF ¹	0	46	0
CGSs	4	40	90

The Government has not provided funding for other waste paper recovery projects.

Remarks:

1. The estimated overall quantity collected by the projects in respect of the projects approved in that year.
2. The contract for the Plastic Sorting Centre expired in June 2018 to meet the planned long-term use of the site.
3. The Recycling Fund has not received any applications for glass recycling.
4. Since November 2017, the Government has been engaging glass management contractors progressively to provide waste glass container collection and treatment services. To avoid duplication of resources,

projects approved for the collection of glass bottles and their recovery targets will decrease as the glass management contractors start to provide service.

5. The glass management contracts for Hong Kong Island and Islands District as well as the New Territories commissioned by the Environmental Protection Department (EPD) commenced in November 2017, which have taken over the previous voluntary glass bottle recycling programmes in the regions and the projects funded by the ECF.
6. The glass management contract for Kowloon commissioned by the EPD commenced in May 2018, which has taken over the previous voluntary glass bottle recycling programmes in the region and the projects funded by the ECF.

- End -

CONTROLLING OFFICER'S REPLY**ENB337****(Question Serial No. 4071)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (1) WasteControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide the quantities of various types of electrical appliances and computer products recovered by recognised recyclers under the Producer Responsibility Scheme on Waste Electrical and Electronic Equipment in the past year.

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 138)Reply:

The Producer Responsibility Scheme on Waste Electrical and Electronic Equipment (WPRS) has been fully implemented. The Waste Electrical and Electronic Equipment Treatment and Recycling Facility (WEEE • PARK), developed by the Government to underpin the WPRS, commenced initial operation in late October 2017 and came into full operation in March 2018. In 2018, the WEEE • PARK processed a total of about 10 830 tonnes of waste regulated electrical equipment (REE) (i.e. air-conditioners, refrigerators, washing machines, televisions, computers, printers, scanners and monitors). The breakdown is as follows:

Waste REE	Amount processed in 2018 (tonnes)
Television	1 270
Refrigerator	2 230
Air-conditioner	1 420
Washing machine	4 595
Computer and computer products	1 315
Total	10 830

As at early March 2019, the Environmental Protection Department (EPD) has issued a total of 10 waste disposal licences for REE (including the WEEE • PARK operator). The licences took effect on 31 December 2018. The licensees should then submit statistics on the amount of e-waste treated to the EPD on a quarterly and annual basis. As the first

quarterly report will be submitted in mid-April 2019, apart from the WEEE • PARK, the EPD does not have the statistics on the amount of e-waste treated in respect of the remaining 9 licences for the time being.

- End -

CONTROLLING OFFICER'S REPLY

ENB338

(Question Serial No. 4914)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please provide the relevant figures in tabular form: What were the Government's measures to facilitate the upgrading and transformation of local recycling industry (such as providing processing equipment) and to develop innovative recycling technologies in the past 3 years? What were the financial resources and manpower involved? What was the percentage of the funds invested in the technologies for processing plastics, glass, metals and paper?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 139)

Reply:

The Government launched the \$1 billion Recycling Fund in October 2015 to assist in the upgrading of the operational capabilities and efficiencies of the recycling industry. Two funding schemes have been established under the Fund, namely the Enterprise Support Programme (ESP) and the Industry Support Programme (ISP). The ESP provides project-based matching funds for individual enterprises to upgrade and expand their waste recycling operations in Hong Kong locally, including installing new equipment to enhance collection and separation of recyclables and adopt value-added recycling processes as well as promoting the recycled products manufactured by recyclables through commercialisation and other marketing efforts. A category of Standard Projects has been established under the ESP to facilitate the application for funding from small and medium enterprises (SMEs) by streamlining the procedures and minimising the documentation required. For the ISP, it has been established for non-profit distributing organisations such as professional bodies, trade and industry organisations, research institutes and other industry support organisations to undertake non-profit-making projects to enhance the overall capability and productivity of the recycling industry. The industry may also apply for funding to transfer mature or proven new technologies from overseas to Hong Kong for adoption. In addition, to support new and start-up enterprises in adopting innovative ideas to facilitate recycling operation, the Recycling Fund earmarked \$20 million in early 2019 for setting up a new Solicitation Theme under the ESP to support and accelerate new and start-up enterprises on

executing ideas in recycling businesses, encourage development and adoption of innovative technologies and establish operations in commercial scale.

The amounts of funding approved by the Recycling Fund in the past 3 years (as at the end of February 2019) are set out below. The funded projects covered various types of recyclables, including waste paper, waste plastics, waste metals, food waste, construction waste, waste cooking oil and waste wood, etc. At present, there is no funded project on recycled glass. As some approved projects processed more than one type of recyclables, we have not prepared a breakdown by type of recyclables processed.

Financial year	Amount of funding (\$m)
2018-19 (As at 28 February 2019)	35.5
2017-18	40.3
2016-17	31.3

The Government also supports research and development projects related to environmental technologies (including recycling) through the Innovation and Technology Fund. Funding for related research and development projects approved by the Innovation and Technology Fund from April 2016 to January 2019 is set out below:

Financial year	Amount of funding (\$m)
2018-19 (As at January 2019)	12.0
2017-18	14.2
2016-17	18.5

Note: Information provided by the Innovation and Technology Commission

Supporting the operation of the Recycling Fund and the Innovation and Technology Fund is part of the work of the Environmental Protection Department and the Innovation and Technology Commission respectively. The manpower and expenditure involved are absorbed by the existing establishment and resources.

- End -

CONTROLLING OFFICER'S REPLY

ENB339

(Question Serial No. 4915)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please provide the relevant figures: What were the Government's measures to enhance the support for recycling and promote the development of the recycling network in the local community in the past 3 years? What were the financial resources and manpower involved? What specific plans the Administration has in place and how much manpower will be earmarked for strengthening environmental education in the community?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 140)

Reply:

The Environmental Protection Department (EPD) has been taking forward the Source Separation of Waste Programme (the Programme) with the support from the Environmental Campaign Committee (ECC) to encourage the public to separate waste at source whether at home or at workplace. As at the end of 2018, over 2 100 housing estates, some 700 rural villages and over 1 000 commercial and industrial (C&I) buildings have participated in the Programme. We have now placed about 16 000 sets of waste separation bins at public places, schools, government office buildings, country parks, as well as housing estates and C&I buildings which have participated in the Programme to facilitate source separation of waste by the public. The provision of recycling bins (RBs) covers over 80% of the places where Hong Kong people live and work.

As single block buildings in older districts usually do not have property management company for implementing and managing recycling programmes or the space for setting up waste recovery facilities, the EPD has set up Community Recycling Centres (CRCs) in various districts through the Environment and Conservation Fund (ECF) to provide services for residents living in these buildings, so as to facilitate their separation of waste for recovery and to promote waste reduction and recycling activities at the community level. There are currently 17 CRCs, 2 mobile community recycling projects and 50 collection points in Hong Kong, all of which are operated by non-government organisations. In the

past 3 years (2016 to 2018), the total amount of approved funding to the CRCs was about \$110 million.

In addition, the ECF promotes recycling in the local community through Community Waste Reduction Projects, Community Involvement Projects for Waste Reduction Through Municipal Solid Waste Charging, Food Waste Recycling Projects in Housing Estates, On-site Meal Portioning Projects in Schools, etc. As stated above, the ECC also provides RBs free of charge for schools as well as housing estates and C&I buildings which have participated in the Programme. In the past 3 years (2016 to 2018), the total amount of funding approved by the ECF to the relevant projects was about \$290 million.

Regarding co-operation with the District Councils (DCs), the EPD, the ECC and the Home Affairs Department have worked with the 18 DCs on the “Community Participation Programme in Environmental Protection” since 2012 to jointly promote environmental education, waste reduction at source and recycling at the district level to further cultivate the “Use less, Waste less” culture in the community. In the past 3 years (2016 to 2018), the total estimated expenditure on the relevant activities was about \$10.8 million.

Having regard to the objectives of facilitating waste reduction and resource recovery, the effective implementation of municipal solid waste (MSW) charging, and balancing the need of upholding environmental hygiene and cost-effectiveness in the use of public resources, the Steering Group on the Modification of Recycling and Refuse Collection Facilities in Public Places (the Steering Group) was set up by the Environment Bureau in 2016 under the chairmanship of the Secretary for the Environment. The Steering Group comprises members drawn from the relevant sectors¹, and is tasked with reviewing the distribution and design of recycling and refuse collection facilities in public places in a more systematic manner, and recommending modifications. In respect of the review on the number and distribution of RBs and litter containers (LCs) in public places, having regard to a set of general planning parameters recommended by a consultancy study, relevant government departments have put forward an adjustment plan. It is expected that the number of RBs will be increased by 45% while the number of LCs will be reduced by 40% in public places when MSW charging is implemented, thereby enhancing the overall RB to LC ratio in public places from 1:14 to 1:6. The study also recommended that additional RBs dedicated to collect certain types of recyclables (e.g. waste paper) should be provided at appropriate locations (e.g. exits of MTR stations where typically more waste paper has been collected) to facilitate resource recovery. Moreover, RBs and LCs should be placed at strategic locations (e.g. crossroads, entrances and exits of venues) to provide the public with greater certainty on their placement, which would help encourage their use. The consultant engaged by the Steering Group has come up with the conceptual design of the new RBs and LCs in public places and is tapping the views of frontline staff and relevant stakeholders before putting up the recommendations to the Steering Group for consideration.

¹ Including design and planning, academia, business, non-profit-making groups, district personalities, as well as relevant government departments.

For the above projects, apart from allocation of fund by the ECF for supporting projects and activities, other preparatory and promotion work is part of the work of the EPD. The manpower and expenditure are absorbed by existing establishment and resources. We do not have a breakdown on the manpower and expenditure involved in this respect.

The EPD is continuing to take forward the development of the network of Community Green Stations (CGSs) to strengthen the support for waste reduction and recycling as well as environmental education at the district level, instilling a green living culture in the community. As at the end of 2018, 7 CGSs have been in operation, including the Sha Tin CGS and the Eastern CGS which commenced operation in 2015; the Kwun Tong CGS, the Yuen Long CGS and the Sham Shui Po CGS which commenced operation in 2017; and the Tuen Mun CGS and the Kwai Tsing CGS which commenced operation in 2018. In addition, the Tai Po CGS and the Islands CGS are expected to commence operation within this year. The total cost for capital works of all CGSs is estimated to be about \$400 million. The operating expenditure of individual CGS may vary, depending on the financial proposals submitted by individual operators in their open tender submissions. At present, there are a total of 17 posts tasked to implement this initiative and monitor the operation of the CGSs, including 16 permanent posts and 1 time-limited post (until 2020). In the past 3 years, the total operating expenditure of the CGSs was about \$47.5 million.

Furthermore, to strengthen on-site support to recycling, the EPD is establishing outreaching teams to collaborate closely with community partners to educate members of the public on the importance of waste reduction at source and assist them to practise proper waste separation at source and clean recycling, and to identify proper outlets for recyclables. At the same time, the outreaching teams will also promote the EPD's various waste reduction and recycling initiatives such as the producer responsibility scheme on waste electrical and electronic equipment, the producer responsibility scheme on glass beverage containers and the proposed MSW charging, so as to raise public awareness and participation, and enhance stakeholders' understanding on the implementation details. The outreaching teams will strive to establish and maintain a direct communication network with different stakeholders such as property management companies, cleansing workers, residents' organisations, District Councils members and community representatives, etc. Starting from December 2018, the outreaching teams have kick-started pilot outreaching services in 3 districts (i.e. Eastern, Kwun Tong and Sha Tin districts). Actual experience gained will serve as reference for gradual expansion of outreaching services to all districts in Hong Kong in future. The staffing of the EPD for implementing the outreaching services will be gradually increased from 32 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) at present (i.e. the financial year 2018-19) to 74 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) and 142 non-civil service contract staff in the financial year 2019-20. The estimated expenditure on salaries in 2019-20 is about \$110 million.

The EPD also plans to roll out a two-year Pilot Scheme on Collection and Recycling Services of Waste Plastics in 3 different districts (i.e. Eastern District, Kwun Tong and Sha Tin) to provide free collection service for waste plastics from non-commercial and non-industrial sources such as public and private housing estates, schools, public

institutions, the CRCs and the CGSs in the districts, with a view to gaining practical experience before expanding the services to the whole territory. The EPD will hire contractors through service contracts to collect waste plastics direct from the above-mentioned premises for further treatment in recycling process, then produce recycled raw materials or products to be exported or supplied to the local market so as to ensure that the waste plastics collected are properly handled. The EPD is tendering the waste plastics collection service contract of the Eastern District, with a view to rolling out the services this year. We will also invite tenders for waste plastics collection services in Kwun Tong and Sha Tin districts one after another later. In 2019-20, the 3 pilot schemes will be undertaken by 18 non-directorate professional staff (including Environmental Protection Officer and Environmental Protection Inspector grades) and the estimated total expenditure is about \$72 million.

- End -

CONTROLLING OFFICER'S REPLY**ENB340****(Question Serial No. 4916)**Head: (44) Environmental Protection DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (3) NoiseControlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please provide the numbers of complaints about noise from neighbours by 18 District Councils in the past 3 years, the details of handling the complaints and the outcomes.

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 141)Reply:

The numbers of complaints about noise emanated from domestic premises (neighbours) received by the Environmental Protection Department (EPD) in each of the past 3 years are as follows:

18 District Council Districts	No. of complaints about noise emanated from domestic premises		
	2016	2017	2018
Central & Western	10	25	15
Eastern	14	13	16
Southern	3	1	7
Wan Chai	7	7	4
Kowloon City	2	12	15
Kwun Tong	9	5	14
Sham Shui Po	6	10	2
Yau Tsim Mong	10	9	17
Wong Tai Sin	3	7	7
Islands	4	2	5
Kwai Tsing	9	6	8
North	5	15	15
Sai Kung	9	13	16
Sha Tin	22	24	21
Tai Po	8	9	7
Tsuen Wan	2	4	8

Tuen Mun	5	9	5
Yuen Long	19	18	40
Total	147	189	222

Note: The Police do not have the relevant figures

The provisions of the Noise Control Ordinance (NCO) are enforced by the EPD and the Police. For sections 4 and 5 of the NCO regarding control of noise emanated from domestic premises, the daily complaints from the public and enforcement work are mainly handled by the Police. Upon receipt of complaints about noise emanated from domestic premises, the EPD, after asking the complainants for information, will explain the regulatory arrangement of the NCO and will refer the cases to the Police for follow up as appropriate. The EPD will also provide the contact telephone number of the police station in the district concerned for the complainants to facilitate their contact with the Police for immediate follow up when necessary.

- End -

CONTROLLING OFFICER'S REPLY

ENB341

(Question Serial No. 3353)

Head: (44) Environmental Protection Department

Subhead (No. & title): (-) Not Specified

Programme: (4) Water

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The problem of marine micro-pollution, particularly microplastics and organic persistent organic pollutants, has recently aroused public concern on water quality and drinking water safety. Regarding the \$356.9m financial provision of 2019-20, will the Administration inform this Committee:

1. Whether part of the resources will be devoted to studying, monitoring, or controlling the effect of micro-pollution on the marine environment; if yes, of the details, if no, of the reasons;
2. As the Department has commissioned a consultant study about microplastic pollution and regulation of personal care and beauty products containing microplastics, of the current progress of the study, and whether the Department will conduct other studies concerning emerging contaminants.

Asked by: Hon SHEK Lai-him, Abraham (LegCo internal reference no.: 53)

Reply:

1. Environmental Protection Department (EPD) will commence a two-year study in the first half of 2019 to collect baseline data on microplastic pollution situation in open marine waters of Hong Kong with a view to assessing the potential pollution sources and their relative contributions to local marine environment. The cost of the study will be absorbed by EPD's allocation in 2019-20.
2. On the control of plastic microbeads in personal care and cosmetics products (PCCPs), EPD is conducting a consultancy study to analyse the situation and develop suitable strategies for Hong Kong. The consultant has reviewed the latest trend of international control practices, and collected and analysed Hong Kong's local market information concerning PCCPs. At this stage, the consultant is soliciting stakeholders' views and will submit later this year the study report together with the findings and recommendations on the control options for the Government to consider.

In addition, EPD has been conducting a toxic substance monitoring programme to monitor and assess the extent of toxic substances in Hong Kong's marine environment. We will keep in view any emerging contaminants that may cause environmental concerns in the local environment and will consider the need to conduct any further environmental studies as appropriate.

- End -

CONTROLLING OFFICER'S REPLY

ENB342

(Question Serial No. 4105)

Head: (44) Environmental Protection Department

Subhead (No. & title): (000) Operational Expenses

Programme: (1) Waste

Controlling Officer: Permanent Secretary for the Environment / Director of Environmental Protection (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the Department's Food Wise Hong Kong Campaign, please advise this Committee on the operating expenditure (including video making, advertisements, daily operation, etc.) of the Big Waster Facebook page (<https://www.facebook.com/bigwaster.hk>) and the big_waster_hk Instagram account (https://www.instagram.com/big_waster_hk) in the past year.

Asked by: Hon YEUNG Alvin (LegCo internal reference no.: 88)

Reply:

The Food Wise Hong Kong Campaign (the Campaign) has promoted a food wise and waste less culture and encouraged behavioural change to reduce food waste at source in the community through various schemes and activities since its launching in 2013. "Big Waster", a character who symbolises food wastage in the Campaign, has strengthened interaction with members of the public, through the Facebook and Instagram pages in which relevant information, including details about food waste reduction and environmental protection, is provided. Up to February 2019, the "Big Waster" Facebook has received more than 61 000 "likes" and there are over 7 000 "followers" on Instagram.

The operating expenditure of the "Big Waster" Facebook and Instagram pages in the past year was about \$700 000.

- End -

CONTROLLING OFFICER'S REPLY

ENB343

(Question Serial No. 3577)

Head: (100) Marine Department

Subhead (No. & title): (-) Not Specified

Programme: (2) Port Services, (3) Local Services

Controlling Officer: Director of Marine (Maisie CHENG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the collection of refuse from locally-licensed vessels and river trade vessels, please advise on:

- (a) the staffing, expenditure and number of vessels involved in collecting refuse from fishing vessels, locally-licensed vessels and river trade vessels, either by staff of the Marine Department (MD) or the contractor it engaged, in the past 3 years (2016-17 to 2018-19);
- (b) the mechanism adopted by the MD for collecting refuse in various typhoon shelters, and the daily collection schedules;
- (c) the staffing, expenditure and number of vessels involved in collecting refuse in various typhoon shelters in the past 3 years (2016-17 to 2018-19);
- (d) whether the MD will review the mechanism or consider providing additional notification channels in order to improve the service in response to views from a number of fishermen about the refuse collection schedules for fishing vessels in typhoon shelters falling short of demand, and the Government failing to render timely and appropriate assistance to the fishing vessels that netted a large quantity of refuse from sea, despite the presence of a 24-hour hotline which somehow go unanswered at times and the MD offering fishermen other means such as email or fax to provide information;
- (e) the total quantities of marine refuse collected by the MD in the past 3 years (2016-17 to 2018-19) and the total quantities of refuse collected in typhoon shelters (please provide the information by month);
- (f) the details of the work and the effectiveness of the Inter-departmental Working Group on Clean Shorelines in the past 3 years (2016-17 to 2018-19); and

- (g) the details of the work and the effectiveness of the Hong Kong-Guangdong Marine Environmental Management Special Panel set up subsequent to the incident of illegal dumping of refuse in the Mainland.

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 46)

Reply:

- (a) & (c) The MD signed the existing contract for marine refuse cleansing services with the contractor for a term of 5 years commencing from 1 October 2017 and ending 30 September 2022, involving a contract expenditure of about \$447 million. This represents an increase of about \$258 million, or 136% in the contract expenditure when compared with the previous five-year contract. Under the new contract, the contractor provides a fleet of about 80 vessels for marine refuse cleansing, representing an increase of 10 vessels, or 14%, when compared with the previous contract. Among which, 8 are new vessels, including 6 fast response boats, 1 catamaran equipped with mechanical refuse cage and 1 vessel fitted with motor scooper. These vessels help enhance the efficiency and effectiveness in cleaning up marine refuse.

Currently, the contractor is providing a fleet of vessels of various types to clean up marine refuse in Hong Kong waters on a daily basis (including Sundays and public holidays), which includes offering domestic refuse collection service to vessels berthed in typhoon shelters, anchorages and small boat anchorage areas. The contract for the marine refuse cleansing services includes cleaning up floating refuse, collecting domestic refuse from vessels, managing refuse collection points and transporting refuse to landfills for disposal, etc. Since the staffing, expenditure and number of vessels involved in collecting refuse from fishing vessels, locally-licensed vessels and river trade vessels in typhoon shelters form part of the staffing mentioned above and part of the overall contract cost for the marine refuse cleansing services, there is no separate breakdown for such items.

The MD has increased a total of 5 Marine Inspector IIs and 2 patrol launches since 2017-18 to expand the staff establishment and equipment for conducting sea patrols to 10 Marine Inspector IIs and 4 patrol launches, with a view to stepping up inspection of cleanliness at sea across the territory and monitoring of the work performance of the contractor, as well as allocating resources in accordance with the actual needs to address the floating refuse problems in various districts. Moreover, the MD is planning to commence a trial run of floating booms in this year, which tackle the issue of marine refuse by intercepting floating refuse, in waters causing no obstruction to vessel traffic.

- (b) Currently, the marine refuse cleansing contractor of the MD has refuse collection boats stationed in major typhoon shelters such as Sam Ka Tsuen, Shau Kei Wan, Causeway Bay, To Kwa Wan, New Yau Ma Tei, Tuen Mun, Sai Kung, Cheung Chau and Shuen Wan for collecting refuse from vessels at those typhoon shelters at least once a day. The refuse collection boats of the contractor generally sail through the typhoon shelters in the morning period to collect refuse from vessels.

Vessels berthed in the typhoon shelters may also make calls to the MD or the contractor for arranging refuse collection service. Since the end of 2015, the frequency of collecting refuse from vessels in Aberdeen Typhoon Shelter has been increased to twice a day, i.e. once in the morning and once in the afternoon.

- (d) In response to the possibility of a large quantity of refuse being netted during fishing operations, the MD has set up the 24-hour hotlines (2385 2791 or 2385 2792) manned by duty officers. Fishermen may call the MD to request for a large refuse collection vessel to the typhoon shelters wherein the fishing vessels concerned are berthed for collection of netted refuse as soon as possible. After reviewing the requests made for the above service through the hotlines, the MD has not found any record on receiving such requests or rendering assistance to the parties concerned so far. The MD is also going to remind the representatives of fishermen organisations of the available channels for those in need to provide information by email (admpcu@mardep.gov.hk) or by fax (2543 6877) for arranging refuse collection service at a meeting during fishing moratorium. The MD will continuously monitor the use of the various existing notification channels, and review the mechanism as necessary to enhance service provision.
- (e) The quantities of marine refuse (including floating refuse, refuse collected from ships, and refuse collected from locally-licensed vessels and river trade vessels) collected in the past 3 years are as follows:

2016

Month	Floating refuse (in tonnes)	Refuse collected from ships (in tonnes)	Refuse collected from locally-licensed vessels and river trade vessels (in tonnes)
January	832.6	211.3	157.5
February	787.9	198.9	163.7
March	829.3	213.9	144.1
April	857.3	203.7	142.5
May	930.3	204.9	164.3
June	1 109.7	206.3	180.7
July	1 345.7	209.6	188.0
August	1 326.3	197.8	176.4
September	1 095.5	204.1	164.3
October	979.0	193.2	155.5
November	898.2	203.4	146.3
December	802.7	219.4	154.5
Full year	11 794.5	2 466.5	1 937.8

2017

Month	Floating refuse (in tonnes)	Refuse collected from ships (in tonnes)	Refuse collected from locally-licensed vessels and river trade vessels (in tonnes)
January	801.2	209.8	168.9
February	775.6	189.9	147.9
March	813.7	210.8	152.0
April	835.5	202.8	151.3
May	943.3	210.4	179.8
June	1 053.2	196.2	186.9
July	1 122.9	210.6	193.3
August	1 406.1	195.8	175.8
September	1 140.8	199.8	160.6
October	993.3	202.0	151.9
November	937.5	203.2	143.3
December	819.2	213.5	145.8
Full year	11 642.3	2 444.8	1 957.5

2018

Month	Floating refuse (in tonnes)	Refuse collected from ships (in tonnes)	Refuse collected from locally-licensed vessels and river trade vessels (in tonnes)
January	830.0	209.9	151.9
February	786.4	198.0	168.8
March	831.4	209.7	161.0
April	862.9	201.6	160.4
May	895.9	219.0	189.1
June	1 008.2	194.1	195.9
July	1 050.7	206.9	201.5
August	1 055.0	203.2	186.6
September	1 469.1	188.3	175.3
October	1 077.4	209.8	178.7
November	889.0	199.7	162.3
December	778.3	208.7	169.1
Full year	11 534.3	2 448.9	2 100.6

The refuse from locally-licensed vessels and river trade vessels is mainly collected in typhoon shelters, with only a small quantity collected in small boat anchorage areas. The MD does not maintain separate statistics on the quantities of refuse collected in individual typhoon shelters and small boat anchorage areas.

The quantities of refuse collected in typhoon shelters are therefore not separately accounted for.

- (f) The HKSAR Government revamped the Inter-departmental Working Group on Clean Shorelines that was only responsible for coordinating efforts on handling marine refuse in the past in January last year with its terms of reference expanded to oversee all marine environmental incidents, and renamed it as Inter-departmental Working Group on Marine Environmental Management (the Working Group). The Task Force on Marine Refuse and the Task Force on Emergency Response to Marine Environmental Incidents are set up under the Working Group. The Environmental Protection Department (EPD) will continue to coordinate the government departments concerned and strengthen their collaboration with one another on the handling of marine refuse and marine environmental incidents through the Working Group.

The departments concerned have been working closely since the establishment of the Working Group to enhance their efforts in cleaning up the gazetted beaches, typhoon shelters, marine parks and other coastal sites, with the total number of clean-up operations per year at the marine refuse priority sites increased by nearly 50 per cent. As at late February 2019, the cleanliness conditions of 29 priority sites have generally been graded as clean or satisfactory, reflecting that the measures concerned have delivered positive results. In addition, the relevant departments have provided support and facilities to reduce refuse entering the marine environment, and have encouraged the public to report marine littering and refuse problems.

The Working Group will exchange views regularly with the public on the areas concerned through numerous platforms, including the engagement session held in September last year, and the Clean Shorelines communication platforms to enhance information exchange and connectivity with the public with a view to promoting greater public and community participation in the shorelines cleanup events.

- (g) Hong Kong and Guangdong set up the Hong Kong-Guangdong Marine Environmental Management Special Panel (Special Panel) in 2016 under the framework of the Hong Kong-Guangdong Joint Working Group on Sustainable Development and Environmental Protection, to enhance exchange and communication on various regional marine environmental matters. These include, among other things, formulating strategies for tackling Hong Kong-Guangdong marine environmental management issues, developing the notification and alert system on marine refuse and sharing experience.

The EPD has launched the notification and alert system on marine refuse in May 2017 for trial to give timely notification to the various government departments concerned and the Department of Ecology and Environment of Guangdong Province on the possible presence of massive amount of marine refuse in the coastal areas of Hong Kong and Guangdong. Since its trial operation, the notification system has been activated for 15 times to issue notifications.

Furthermore, relevant member departments of the Working Group visited the search and rescue centre in Guangdong Province and the anti-pollution base in Gaolan Port in August last year to examine and exchange ways to enhance emergency cooperation in marine environmental incidents with the Guangdong side, in order to jointly protect and improve the regional marine environment. Hong Kong and Guangdong will continue to maintain close liaison to strengthen cross-boundary cooperation on the issues concerned.

- End -

CONTROLLING OFFICER'S REPLY**ENB344****(Question Serial No. 5085)**Head: (137) Government Secretariat : Environment BureauSubhead (No. & title): (-) Not SpecifiedProgramme: (-) Not SpecifiedControlling Officer: Permanent Secretary for the Environment (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Regarding its work in relation to the Code on Access to Information, will the Administration advise this Committee on the following:

1) concerning the requests for information under the Code on Access to Information received by the Environment Bureau for which only some of the required information was provided, please state in tabular form: (i) the content of the requests for which only some of the required information was provided; (ii) the reasons for providing some of the information only; and (iii) how the requests were eventually handled.

Year

(i) Content of the requests for which only some of the required information was provided	(ii) Reasons for providing some of the information only	(iii) How the requests were eventually handled

2) concerning the requests for information under the Code on Access to Information received by the Environment Bureau for which the required information was not provided, please state in tabular form: (i) the content of the requests refused; (ii) the reasons for refusal; and (iii) how the requests were eventually handled.

Year

(i) Content of the requests refused	(ii) Reasons for refusal	(iii) How the requests were eventually handled

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 120)Reply:

Of the requests for information under the Code on Access to Information handled by the Environment Bureau from January to September 2018, there were no requests for which only some of the required information was provided or refused by the Bureau.

- End -

CONTROLLING OFFICER'S REPLY

ENB345

(Question Serial No. 6275)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (2) Power
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

To ensure a long-term stable supply of clean energy for Hong Kong and to achieve the 2020 fuel mix target, what was the progress of the work of the Government and the two power companies in exploring new gas sources and studying the construction of an offshore liquefied natural gas terminal in Hong Kong waters in the past year? What are the details of the relevant work in the coming year?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 324)

Reply:

According to our understanding, following the grant of the environmental permit by Environmental Protection Department last year, the two power companies have commenced the site investigation, front-end engineering design and applicable regulatory approval processes for the offshore liquefied natural gas terminal (the Terminal). Given that the Terminal will only be completed by the end of 2021, the two power companies have been engaged in negotiations with suppliers on the procurement of additional natural gas in the past year to meet the increasing demand for natural gas from 2020 onwards.

In the coming year, we will monitor the progress of the construction of the Terminal in accordance with the established mechanism and compare the actual and estimated capital expenditure to ensure that the project complies with the approved development plans. In addition, we will also assess the procurement proposals of liquefied natural gas from the two power companies to ensure a long-term stable supply of natural gas for Hong Kong.

- End -

CONTROLLING OFFICER'S REPLY

ENB346

(Question Serial No. 6276)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (2) Power
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

Regarding external lighting pollution:

- Please advise on the number of participants since the introduction of the Charter on External Lighting (the Charter) and its effectiveness in reducing external lighting pollution.
- Please provide details of the progress of the work of the Working Group on External Lighting to review the effectiveness of the Charter.
- Please set out the number of light pollution complaints handled by the Bureau in the past 5 years.

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 325)

Reply:

Since the Charter on External Lighting (the Charter) took effect in April 2016, nearly 5 000 participants from different sectors, including building management, property development, hotels and catering, retail, laundry, banking, telecommunications and real estate agencies, as well as schools, public utilities and public/non-governmental organisations, have signed the Charter. Although the Charter is a voluntary document, most of the participants take their pledge seriously. Our on-site compliance checks conducted in 2017 and 2018 show that over 99% of the participants have followed the switch-off requirement.

To review the effectiveness of the Charter, the Government reorganised the Working Group on the Promotion of the Charter of External Lighting into the Working Group on External Lighting (WGEL) in August 2018, and expanded its scope of work to include promotion of the Charter, reviewing its effectiveness and advising the Government on more options to effectively manage external lighting. The WGEL is now engaging consultancies through the Environment Bureau to conduct an opinion survey to gauge the views of various sectors and members of the public towards the current situation and regulation of external lighting; and to look into regulatory arrangements adopted by other economies and cities for external lighting installations and consider whether there are any outside experiences, measures and standards that Hong Kong can learn from. In addition, we plan to measure the changes of illumination level in different districts in Hong Kong to assess the effectiveness of the

Charter. The WGEL expects to complete the review and submit its recommendations to the Government in the first half of 2020.

The numbers of complaints against external lighting received by the Environmental Protection Department in the past 5 years are as follows:

Year	2014	2015	2016	2017	2018
No. of complaints	229	256	335	355	477

As nearly 40% of the complaints involved lighting installations for safety, security and operational purposes, they were not covered by the Charter.

- End -

CONTROLLING OFFICER'S REPLY

ENB347

(Question Serial No. 6277)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the renewable energy (RE) Feed-in Tariff (FiT) scheme:

What are the details of the work performed by the Government and the two power companies in promoting and implementing the RE FiT scheme in future?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 326)

Reply:

Under the Scheme of Control Agreements signed between the Government and the power companies, the two power companies introduced their Feed-in Tariff (FiT) Schemes in October 2018 and January 2019 respectively. The power companies will review with the Government the FiT rates annually and the FiT arrangements from time to time, having regard to the implementation of the FiT.

- End -

CONTROLLING OFFICER'S REPLY**ENB348****(Question Serial No. 6278)**

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the target of reducing the electricity consumption of the Government:

- Please list the total electricity consumption and electricity costs of government buildings since 2013-14;
- Please list the names, electricity consumption and electricity costs of the 10 government buildings with the highest electricity consumption since 2013-14;
- Please list the details of the energy saving projects implemented at government buildings and facilities since 2015-16, including project locations, details of the facilities, prices, electricity generation, electricity saving, the percentage of electricity saving in the total electricity consumption of that building or facility and the electricity cost savings after the implementation of the projects.
- What is the Government's plan to achieve the target of reducing electricity consumption by 5% for government buildings by 2019-20 (using the electricity consumption in 2013-14 as the baseline)?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 327)

Reply:

The total electricity consumption of government buildings in the 5 financial years from 2013-14 to 2017-18 is as follows:

Year	Total electricity consumption of government buildings (kWh)
2013-14	1.420 billion
2014-15	1.460 billion
2015-16	1.476 billion
2016-17	1.467 billion
2017-18	1.449 billion

The energy-saving target of government buildings is benchmarked against the electricity consumption of the buildings, so we only collect data on electricity consumption and data on electricity cost is not available.

The details of the 10 government buildings with the highest electricity consumption since 2013-14 are as follows:

2017-18

	Name of building	Total electricity consumption of government buildings (kWh)
1	Immigration Tower	32.3 million
2	Central Government Offices	28.1 million
3	High Block, Police Headquarters	22.6 million
4	Public Health Laboratory Centre	20.1 million
5	Revenue Tower	19.9 million
6	Tai Po Complex	17.1 million
7	Queensway Government Offices	15.6 million
8	Civil Aviation Department Headquarters	15.3 million
9	Wanchai Tower	14.4 million
10	Cheung Sha Wan Government Offices	13.0 million

2016-17

	Name of building	Total electricity consumption of government buildings (kWh)
1	Immigration Tower	32.9 million
2	Central Government Offices	28.5 million
3	High Block, Police Headquarters	23.6 million
4	Revenue Tower	20.9 million
5	Public Health Laboratory Centre	20.9 million
6	Tai Po Complex	16.3 million
7	Queensway Government Offices	16.2 million
8	Wanchai Tower	15.4 million
9	Civil Aviation Department Headquarters	15.4 million
10	Cheung Sha Wan Government Offices	13.4 million

2015-16

	Name of building	Total electricity consumption of government buildings (kWh)
1	Immigration Tower	33.4 million
2	Central Government Offices	29.0 million
3	Public Health Laboratory Centre	21.4 million
4	High Block, Police Headquarters	21.2 million
5	Revenue Tower	20.4 million
6	Queensway Government Offices	16.3 million
7	Civil Aviation Department	16.2 million

	Headquarters	
8	Wanchai Tower	15.7 million
9	Tai Po Complex	14.6 million
10	Hong Kong Cultural Centre	13.8 million

2014-15

	Name of building	Total electricity consumption of government buildings (kWh)
1	Immigration Tower	32.6 million
2	Central Government Offices	29.3 million
3	Revenue Tower	20.9 million
4	High Block, Police Headquarters	20.8 million
5	Public Health Laboratory Centre	20.5 million
6	Civil Aviation Department Headquarters	17.0 million
7	Queensway Government Offices	16.9 million
8	Wanchai Tower	16.0 million
9	Hong Kong Cultural Centre	15.2 million
10	Tai Po Complex	14.8 million

2013-14

	Name of building	Total electricity consumption of government buildings (kWh)
1	Immigration Tower	31.8 million
2	Central Government Offices	28.4 million
3	Revenue Tower	21.0 million
4	Public Health Laboratory Centre	19.9 million
5	High Block, Police Headquarters	19.1 million
6	Civil Aviation Department Headquarters	16.7 million
7	Wanchai Tower	16.6 million
8	Queensway Government Offices	16.4 million
9	Hong Kong Cultural Centre	16.0 million
10	Tai Po Complex	14.2 million

The energy saving and energy efficiency projects carried out by the Electrical and Mechanical Services Department (EMSD) and the Architectural Services Department (Arch SD) for various government departments in 2017-18 and 2018-19 are tabulated below:

Year	Government departments	Buildings involved	Content of the specific projects	Estimated annual electricity saving (kWh)	Expenditure of projects
2018-19	Arch SD, Customs and Excise Department, Civil Aviation Department, Civil Aid Service, Hong Kong	Arts and cultural venues, court buildings, cooked food venues, clinics, community centres, departmental headquarters	Energy saving projects including the retrofitting of more energy-efficient lighting and control systems, light emitting diode lighting and floodlights, and more energy-efficient air-conditioning and management systems, etc.	15.30 million	About \$323 million
2017-18	Correctional Services Department, Department of Health, Education Bureau, EMSD, Food and Environmental Hygiene Department, Hong Kong Fire Services Department, Government Flying Service, Government Laboratory, Government Logistics Department, Government Property Agency, Highways Department, Home Affairs Department, Hong Kong Observatory, Hong Kong Police Force, Hong Kong	fire stations, government offices, government quarters, laboratories, libraries, municipal services buildings, parks and playgrounds, police stations, correctional institutions, control points, recreation centres, schools, sports centres, swimming pools, marine ferry terminals, etc.		9.80 million	About \$204 million

	Independent Commission Against Corruption, Hong Kong Immigration Department, Judiciary, Leisure and Cultural Services Department, Marine Department, Radio Television Hong Kong, Social Welfare Department and Transport Department.				
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As both the EMSD and the Arch SD have started carrying out the energy saving and energy efficiency projects since 2017-18, the above table does not include statistics for 2015-16 and 2016-17.

Since we do not collect data on electricity costs of various departments, electricity cost savings cannot be calculated.

The electricity saving brought about by the implementation of the above projects accounted for about 1.77% of the total electricity consumption of government buildings.

Under comparable operating conditions, the electricity consumption of government buildings in 2017-18 was about 4.9% lower than that in 2013-14. Taking into account other energy saving projects will be completed successively in 2018-19 and 2019-20, further electricity saving is expected. According to the current estimation, we believe that the energy-saving target of 5% could be achieved in 2019-20.

- End -

CONTROLLING OFFICER'S REPLY

ENB349

(Question Serial No. 6279)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

What are the details of the progress of the review of the Building Energy Code and Energy Audit Code under the Buildings Energy Efficiency Ordinance (Cap. 610)? When will the relevant review be completed?

Asked by: Hon CHAN Tanya (LegCo internal reference no.: 328)

Reply:

To promote energy saving in buildings, the Government will tighten the statutory requirements on building energy efficiency, including reviewing the statutory Building Energy Code and Energy Audit Code every 3 years. The first review was completed in 2015. The new codes revised in the second review were gazetted on 16 November 2018 and are scheduled for full implementation by mid-August 2019.

- End -

CONTROLLING OFFICER'S REPLY**ENB350****(Question Serial No. 4827)**

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please advise this Committee on the following:

- (a) Please provide the number of complaints against light pollution received by the Administration in the past year and set out the numbers for 18 districts in tabular form;
- (b) Has the Administration received participants' requests for withdrawal from the Charter on External Lighting (the Charter) in the past year? If yes, what are the details?
- (c) What are the promotion plans for the Charter and the Guidelines on Industry Best Practices for External Lighting Installations? What are the manpower and resources to be allocated by the Administration?

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1503)

Reply:

(a) A breakdown of the complaints against external lighting received by the Environmental Protection Department (EPD) in the past year by district is shown in the table below.

District	2018
Central and Western	44
Wan Chai	41
Eastern	37
Southern	25
Yau Tsim Mong	56
Sham Shui Po	36
Kowloon City	33
Wong Tai Sin	5
Kwun Tong	16
Tsuen Wan	23
Tuen Mun	24
Yuen Long	28

District	2018
North	13
Tai Po	16
Sai Kung	32
Sha Tin	15
Kwai Tsing	28
Islands	5
Total	477

(b) As at the end of 2018, some 210 participants have withdrawn from the Charter on External Lighting (the Charter) due to relocation or closure. Another 13 participants have requested to withdraw as they could not fulfill the requirement of the Charter due to operational needs or technical reasons.

(c) The Environment Bureau (ENB) has been committed to promoting the Guidelines on Industry Best Practices for External Lighting Installations (the Guidelines) and the Charter. For instance, the ENB held a total of 30 discussion sessions between May 2016 and February 2018 to appeal to Charter participants and members of the relevant professional bodies, trade associations and public organisations to comply with the Guidelines when planning for or managing their external lighting installations, and to adopt the good practices stated in the Guidelines. The content of discussion included operating hours for lighting installations, control on lighting, light nuisance control measures, energy efficiency measures, lighting installation project design planning and glare prevention.

Following the appointment of the Working Group on External Lighting (WGEL) in August 2018, the ENB has been working closely with the WGEL and liaising with the relevant trade associations and non-governmental organisations to invite owners of or responsible persons for external lighting installations to sign the Charter. The ENB has also invited shopping malls, advertising companies, trade associations and professional bodies, etc. to encourage, through their network, other companies, business contacts and partners, clients, etc. to sign up their premises with external lighting installations to the Charter. The ENB will continue with the above work.

In addition, the ENB has published a list of participants on the Charter's website and has distributed labels and certificates to participants for display at their properties/shops to show that they have signed the Charter, as well as to raise public awareness of the Charter. We plan to hold an award ceremony later this year to commend participants who have fulfilled the switch-off pledge.

The above work is undertaken by the existing staff of the ENB. As the staff members concerned are also responsible for other duties, we do not have a separate breakdown. As for other promotion costs and expenditures on the events, the estimated expenditure for 2019-20 is \$1.4 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB351

(Question Serial No. 4828)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (1) Director of Bureau's Office

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the records management work of your Bureau and the departments under your purview over the past year:

1. Please provide information on the number and rank of officers designated to perform such work. If there is no officer so designated, please provide information on the number of officers and the hours of work involved in records management duties, and the other duties they have to undertake.

2. Please list in tabular form information on programme and administrative records which have been closed pending transfer to the Government Records Service (GRS) for appraisal, including:

Category of records	
Years covered by the records	
Number and linear metres of records	
Retention period approved by GRS	
Whether they are confidential documents	
Reasons for not having been transferred	

3. Please list in tabular form information on programme and administrative records which have been transferred to GRS for retention, including:

Category of records	
Years covered by the records	
Number and linear metres of records	
Years that the records were transferred to GRS	
Retention period approved by GRS	
Whether they are confidential documents	

4. Please list in tabular form information on records which have been approved for destruction by GRS, including:

Category of records	
Years covered by the records	
Number and linear metres of records	
Years that the records were transferred to GRS	
Retention period approved by GRS	
Whether they are confidential documents	

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1504)

Reply:

1. Records management duties in the Environment Bureau and the Environmental Protection Department are overseen by a Departmental Records Manager and an Assistant Departmental Records Manager. They are officers at the rank of Chief Executive Officer and Senior Executive Officer respectively. They are assisted by about 290 secretarial and clerical staff whose duties may include records management. The proportion of their time engaged in records management varied according to different operational functions.

2. Information on the programme and administrative records which have been closed pending transfer to the Government Records Service (GRS) for appraisal in the past year is provided in the table below:

Category of records	Years covered by the records	Number and linear metres (LM) of records	Retention period approved by GRS	Whether they are confidential documents?	Reasons for not having been transferred
Programme	1982-1989	1 no. 0.04 LM	15 years	Yes	Pending approval by GRS
	1982-2010	1 798 nos. 447.8 LM	3-15 years	No	Pending approval by GRS

3. Information on the programme and administrative records which have been transferred to the GRS for retention in the past year is provided in the table below:

Category of records	Years covered by the records	Number and linear metres (LM) of records	Year that the records were transferred to GRS	Retention period approved by GRS	Whether they are confidential documents?
Programme	1995-2015	1 306 nos. 15.33 LM	2018	7-15 years	No

4. Information on records which have been approved for destruction by the GRS in the past year is provided in the table below:

Category of records	Years covered by the records	Number and linear metres (LM) of records	Year that the records were transferred to GRS	Retention period approved by GRS	Whether they are confidential documents?
Administrative	1961-2017	27 101 nos. 308.23 LM	Transfer to GRS not required	1-5 years	No
	1991-2008	31 nos. 1.55 LM	2015	3-5 years	No
	2011-2014	12 nos. 0.48 LM	2017	2-3 years	No
Programme	1991-2005	100 nos. 26 LM	2011	5 years	No
	2010	14 404 nos. 47.33 LM	2013	7 years	No
	2012-2015	55 nos. 10.85 LM	Transfer to GRS not required	2 years	No

- End -

CONTROLLING OFFICER'S REPLY

ENB352

(Question Serial No. 4829)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (1) Director of Bureau's Office

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please give details of the Department's meetings, visits or exchanges with relevant Mainland authorities in the past year and set out in chronological order the following information for each visit: (a) purpose and place of visit; (b) titles of officials met; (c) size of entourage and post titles; (d) days of visit; and (e) total expenditure involved, including expenses on (i) transportation (air tickets and local transportation); (ii) accommodation; (iii) meals; (iv) banquets or entertainment; (v) gifts.

Date

(a)

(b)

(c)

(d)

(e)

(i)

(ii)

(iii)

(iv)

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1505)

Reply:

Information on duty visits to the Mainland carried out by officers of the Environment Bureau on environmental protection, energy and related matters in the past year is provided below:

Year	Purposes of visits	Places	No. of days	No. of visits	No. of officials <small>(Note 1)</small>	Transportation (not including local transportation) (\$)	Total expenditure <small>(Note 2)</small> (\$)
2018-19 (Up to mid-March)	Experience sharing and liaison on environmental protection, energy and related policies.	Beijing, Chengdu, Guangzhou, Macao	1-3 days for each visit	13	21	25,691 <small>(Note 3)</small>	38,503 <small>(Note 3)</small>

Note 1: Officers of different ranks per duty visit and led by the Secretary for the Environment or senior officials.

Note 2: Expenses include travelling and accommodation fees, subsistence allowance for duty outside Hong Kong and sundry expenses (where applicable).

Note 3: Information is provided up to mid-March 2019 and it does not include the remaining expenditure.

- End -

CONTROLLING OFFICER'S REPLY

ENB353

(Question Serial No. 4830)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (1) Director of Bureau's Office

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Please give details of the Secretary's and the Under Secretary's duty visits in each of the past 5 years and set out in chronological order the following information for each visit: (a) purpose and place of visit; (b) titles of officials met; (c) size of entourage and post titles; (d) days of visit; and (e) total expenditure involved, including expenses on (i) transportation (air tickets and local transportation); (ii) accommodation; (iii) meals; (iv) banquets or entertainment; and (v) gifts.

Date

- (a)
- (b)
- (c)
- (d)
- (e)
- (i)
- (ii)
- (iii)
- (iv)

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1506)

Reply:

Date	(a)		(b)	(c) (Note 1)	(d)	(e) (i)+(ii)+(iii) (Note 2 and Note 3) (\$)	(i) (Note 2, Note 3 and Note 4) (\$)	(ii) (Note 2 and Note 3) (\$)	(iii) (Note 2, Note 3 and Note 5) (\$)	(iv) (\$)	(v)
	Purposes	Places									
2014-15 (20)	Meetings and exchanges on environmental protection, energy and related policies; attending international conferences	Mainland China, USA, Italy, Spain, Japan, Macao	Met with different individuals, including local officials, professional organisations and local personalities according to the purpose of visit	0-2 persons	1-8 days	656,000	436,000	84,000	136,000	2,000	See Note 6
2015-16 (16)	Same as above	Mainland China, France, Italy, Philippines, Germany, Macao	Same as above	0-3 persons	1-10 days	1,012,000	629,000	187,000	196,000	400	Same as above
2016-17 (20)	Same as above	Mainland China, Japan, Mexico, USA, Turkey, Denmark, France, Spain, Macao	Same as above	0-2 persons	1-8 days	899,000	580,000	92,000	227,000	0	Same as above
2017-18 (14)	Same as above	Mainland China, France, Germany	Same as above	0-2 persons	1-5 days	572,000	386,000	74,000	112,000	0	Same as above
2018-19 (13) (Up to mid-March)	Same as above	Mainland China, Macao, Japan, USA	Same as above	0-2 persons	1-6 days	475,000	230,000	83,000	162,000	0	Same as above

Note 1: Number of accompanying officers from the Director of Bureau's Office.

Note 2: Expenses include those of accompanying officers from the Director of Bureau's Office.

Note 3: Information provided up to mid-March 2019. The remaining expenses are not included.

Note 4: Expenses only include air ticket expenses.

Note 5: Other expenses include meals, local transportation and other miscellaneous expenses reimbursable under the Civil Service Regulations.

- Note 6: In line with the Government's green policy, public officers should as far as possible refrain from bestowing gifts/souvenirs to others during the conduct of official activities. According to the existing guidelines, where bestowal of gifts/souvenirs is necessary or unavoidable due to operational, protocol or other reasons, the gift/souvenir items should not be lavish or extravagant and the number should be kept to a minimum. Also, the exchange of gifts/souvenirs should only be made from organisation to organisation.
- Note 7: Apart from the duty visits listed above, the Secretary for the Environment (SEN) attended the opening ceremony of the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) on 22 September 2018. As part of the ceremony, SEN took a return trip on the XRL between Hong Kong West Kowloon Station and Guangzhou South Railway Station. There is no separate breakdown for the travelling expense incurred.

- End -

CONTROLLING OFFICER'S REPLY

ENB354

(Question Serial No. 4831)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the monitoring of the two power companies, please advise on the expenditure and establishment for the past financial year as well as the budget and establishment for the next financial year in respect of the review of the regulatory framework for the electricity market.

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1507)

Reply:

To take forward tasks in relation to the future development of the electricity market and other relevant work (including discussion with the two power companies on the detailed arrangements for the post-2018 Scheme of Control Agreements (SCAs), monitoring the implementation of the SCAs and promoting the development of renewable energy), the expenditure on salaries for 2018-19 was \$6.59 million. The civil servants undertaking the relevant tasks include 1 Administrative Officer Staff Grade C, 2 Senior Administrative Officers, 1 Senior Executive Officer and 1 Personal Secretary I.

To press ahead with the tasks in relation to the future development of the electricity market, the expenditure on salaries for 2019-20 is \$7.35 million. In respect of manpower, 1 Executive Officer I post will be created.

- End -

CONTROLLING OFFICER'S REPLY

ENB355

(Question Serial No. 4832)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (3) Sustainable Development

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the studies (if any) commissioned by the Bureau and the departments under its purview for the purpose of formulating and assessing policies, please provide information in the following format.

(a) Using the table below, please provide information on studies on public policy and strategic public policy for which funds were allocated in the past 2 financial years:

Name of Consultant	
Mode of award (open auction/tender/others (please specify))	
Title, content and objective of the project	
Consultancy fee (\$)	
Start date	
Progress of the study (under planning/in progress/completed)	
The Administration's follow-ups to the study reports and their progress (if any)	
For completed studies, have they been made public? If yes, through what channel(s)? If no, why?	

(b) Are there any projects for which funds have been reserved for conducting internal studies this year? If yes, please provide the following information:

Title, content and objective of the project	
Start date	
Progress of the study (under planning/in progress/completed)	
The Administration's follow-ups to the study reports and their progress (if any)	
For projects that are expected to be	

completed this year, is there any plan to make them public? If yes, through what channel(s)? If no, why?	
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(c) Are there any projects for which funds have been reserved for conducting consultancy studies this year? If yes, please provide the following information:

Name of consultant	
Mode of award (open auction/tender/others (please specify))	
Title, content and objective of the project	
Consultancy fee (\$)	
Start date	
Progress of the study (under planning/in progress/completed)	
The Administration's follow-ups to the study reports and their progress (if any)	
For projects that are expected to be completed this year, is there any plan to make them public? If yes, through what channel(s)? If no, why?	

(d) What are the criteria for considering the award of consultancy projects to the research institutions concerned?

Asked by: Hon CHEUNG Chiu-hung, Fernando (LegCo internal reference no.: 1508)

Reply:

(a) Information on the studies on public policy and strategic public policy undertaken in 2017-18 and 2018-19 is provided in the table below:

Name of consultant	Mode of Award (open auction/ tender/ others (please specify))	Title, content and objective of project	Consultancy fee (\$)	Start date	Progress of study (under planning/in progress/ completed)	The Administration's follow-ups to the study report and their progress (if any)	For completed studies, have they been made public? If yes, through what channel(s)? If no, why?
Social Sciences Research Centre, The University of Hong Kong	Tender	Independent analysis of the public views received during the Public Engagement on Promotion of Sustainable Consumption of Biological Resources conducted by the Council for Sustainable Development (SDC)	940,000	Oct 2015	Completed	The SDC has taken into account the findings of the study when drawing up recommendations for the Administration's consideration.	The findings of the study have been uploaded onto the SDC's website.
Social Sciences Research Centre, The University of Hong Kong	Tender	Independent analysis of the public views received during the Public Engagement on Long-term Decarbonisation Strategy conducted by the SDC	940,000	May 2018	In progress	The project is in progress.	Not applicable

(b) Currently, we have no projects which are planned for internal studies to be conducted by the Sustainable Development Division in 2019-20.

(c) For projects for which funds have been reserved for conducting consultancy studies in 2019-20, the details are provided in the table below.

Name of consultant	Mode of Award (open auction/ tender/ others (please specify))	Title, content and objective of project	Consultancy fee (\$)	Start date	Progress of study (under planning/in progress/ completed)	The Administration's follow-ups to the study report and their progress (if any)	For the projects that are expected to be completed this year, is there any plan to make them public? If yes, through what channel(s)? If no, why?
Social Sciences Research Centre, The University of Hong Kong	Tender	Independent analysis of the public views received during the Public Engagement on Long-term Decarbonisation Strategy conducted by the SDC	940,000	May 2018	In progress	The project is in progress.	Not applicable

(d) Tendering, selection and award of studies are carried out according to the relevant procedures of the Stores and Procurement Regulations with due consideration of the technical criteria including expertise and experience of consultants and resources to be committed for the study by the consultants.

- End -

CONTROLLING OFFICER'S REPLY

ENB356

(Question Serial No. 4230)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

How many business establishments have signed the Charter on External Lighting up to 2018? What is its percentage in the total number of external business establishments in Hong Kong?

Asked by: Hon CHOW Ho-ding, Holden (LegCo internal reference no.: 56)

Reply:

Since the Charter on External Lighting (the Charter) took effect in April 2016, nearly 5 000 participants from different sectors, including building management, property development, hotels and catering, retail, laundry, banking, telecommunications and real estate agencies, as well as schools, public utilities and public/non-governmental organisations, have signed the Charter.

Since there are numerous business establishments with external lighting installations in Hong Kong and the number may change at any time, we do not have the data for a comparison.

- End -

CONTROLLING OFFICER'S REPLY

ENB357

(Question Serial No. 4361)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (2) Power
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

Please advise on the following:

1. The latest progress of the offshore liquefied natural gas (LNG) terminal (the Terminal) and the anticipated date of completion.
2. Have the two power companies provided any information to the Secretary for the Environment on the construction cost for building the Terminal and associated facilities? If yes, what are the details?
3. Details of the Bureau's work relating to the project, and the expenditure and manpower arrangement to be involved in the coming year.
4. Has the Administration assessed (a) the impact of construction of the Terminal on electricity tariff (such as when the assets of the Terminal will be credited), and (b) the feasibility of financing the construction of the Terminal by the Government itself?
5. According to the Administration's current assessment, can the two power companies achieve the target of increasing the share of natural gas in electricity generation to 50% by 2020?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 55)

Reply:

1. According to our understanding, following the grant of the environmental permit by Environmental Protection Department in October 2018, CLP Power Hong Kong Limited (CLP) and The Hongkong Electric Company, Limited (HKE) have commenced the site investigation, front-end engineering design and applicable regulatory approval processes for the offshore liquefied natural gas terminal. The project is expected to complete construction by the end of 2021.
2. According to the information submitted by the two power companies, the offshore liquefied natural gas terminal project mainly involves the construction of a double berth jetty and subsea gas pipelines from the jetty to the two power companies' respective power stations. The estimated total capital expenditure of the project is about \$7 billion.

3. We will monitor the progress of the project in accordance with the established mechanism and compare the actual and estimated capital expenditure to ensure that the project complies with the approved development plans. As the above-mentioned work is part of the duties of the Financial Monitoring Division and the Electricity Team of this Bureau, there is no separate breakdown on the manpower and expenditure involved.

4(a). According to the Scheme of Control Agreements, after the project was approved, all capital expenditures would be incorporated into the fixed assets accounts. According to the 2018-23 Development Plans of the two power companies, it is expected that the highest tariff impact of the offshore liquefied natural gas terminal on the two power companies during the Development Plan period will be about 1-2%.

4(b). Under the existing regulatory arrangements, there is a clear demarcation of the roles and responsibilities between the Government and the power companies. The Government is responsible for regulatory oversight on the power companies' performance and investment, while the power companies invest, operate and deliver a reliable supply of electricity. If the Government were to invest in the infrastructure projects of the power companies, it would mix up the Government's role as a regulator (as the Government would have become both an investor in power generation with the power companies and their regulator). In addition, it would give the false impression that the Government were to participate in the operation of the electricity industry directly and were to nationalise the electricity industry.

In terms of timing, if the Government were to construct the offshore liquefied natural gas terminal, it would need to carry out re-planning and would also need to seek funding approval from the Finance Committee of the Legislative Council for the works. As it would take time to go through the above procedures, the offshore liquefied natural gas terminal will not be ready for commissioning by the end of 2021 as planned to meet the need of additional gas supply. Currently, CLP and HKE only have two and one gas pipeline(s) respectively. With the increasing use of natural gas for electricity generation, any delay in the commissioning of the offshore liquefied natural gas terminal may affect the security and reliability of gas supply and hence the reliability of electricity supply.

5. According to the information submitted by the two power companies, it is anticipated that they can achieve the target of increasing the percentage of natural gas in the total fuel mix for electricity generation to around 50% by 2020.

- End -

CONTROLLING OFFICER'S REPLY**ENB358****(Question Serial No. 4363)**Head: (137) Government Secretariat : Environment BureauSubhead (No. & title): (-) Not SpecifiedProgramme: (2) PowerControlling Officer: Permanent Secretary for the Environment (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

1. How is the implementation of renewable energy (RE) projects in government buildings and facilities currently? Please set out by type of RE the total number of government buildings and facilities in which RE is used, the total generation capacity provided by that type of RE every year and the estimated energy cost savings;
2. What are the RE projects to be implemented in government buildings and facilities in the coming year? Please set out the names of those government buildings/public facilities, the names of the RE installations, the work progress, the annual electricity generation, the estimated energy cost savings and expenditure on the works involved;
3. Judging from the current situation of implementing energy saving projects in government buildings and facilities, is it possible for the Government to achieve the target of reducing electricity consumption by 5% by 2019-20? If no, what are the reasons?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 57)Reply:

1. Currently, the types of renewable energy (RE) adopted at government buildings and facilities include: photovoltaic (PV) systems, solar water heating systems, wind power systems, waste-to-energy systems, biogas and hydropower systems, etc. The numbers of RE projects installed at newly-built government buildings by the Architectural Services Department (ArchSD), their annual power generation and estimated energy cost savings in the past 5 years are tabulated below:

Project completion year	Number of projects	Annual power generation (kWh)*	Annual energy cost savings (\$)***^
<u>PV system</u> ⁺			
2014	6	84 000	92,400
2015	8	201 000	221,100

Project completion year	Number of projects	Annual power generation (kWh)*	Annual energy cost savings (\$)***^
2016	4	61 000	67,100
2017	4	16 000	17,600
2018	5	62 000	68,200
<u>Solar water heating system</u>			
2014	1	133 000	146,300
2015	4	434 000	477,400
2016	5	190 000	209,000
2017	4	580 000	638,000
2018	1	12 000	13,200
<u>Wind power system</u> ⁺			
2015	3	5 000	5,500

+ Excluding small-scale RE installations such as lighting systems used in open spaces and public parks.

* The figure denotes the estimation of annual power generation and energy cost savings made during the design stage of the RE installations.

^ Calculated based on the average net tariff rate of the two power companies in 2018 (i.e. \$1.1 per kWh of electricity).

The numbers of RE projects installed in the facilities of the Environmental Protection Department (EPD), the Water Supplies Department (WSD), the Highways Department, the Drainage Services Department (DSD) and the Civil Engineering and Development Department (CEDD), their annual power generation and estimated energy cost savings in the past 5 years are tabulated below:

Project completion year	Number of projects	Annual power generation (kWh)*	Annual energy cost savings (\$)***^
<u>PV system</u>			
2014	5	23 480	25,828^
2015	3	38 700	42,570^
2016	4	1 110 000	1,221,000^
2017	6	295 900	325,490^
2018	5	187 600	206,360^
<u>Solar water heating system</u>			
2018	1	220 000	242,000^

Project completion year	Number of projects	Annual power generation (kWh)*	Annual energy cost savings (\$)*
<u>Waste-to-energy system</u>			
2015	1 [#]	46 010 900 [#]	43,550,000 ^{#@}
2017	1	11 700 000 ^{&}	12,870,000 [^]
2018	1 ^{**}	2 460 000 ^{**}	2,035,000 ^{**@}
<u>Biogas</u>			
2014	1	1 870 000	2,057,000 [^]
2016	1	770 000	847,000 [^]
<u>Hydropower system</u>			
2017	1	2 500 000	2,750,000 [^]
2018	1	120 000	132,000 [^]

* The figure denotes the estimation of annual power generation and energy cost savings made during the design stage of the RE installations.

[^] Calculated based on the average net tariff rate of the two power companies in 2018 (i.e. \$1.1 per kWh of electricity).

[#] The figure in 2018 is the actual power generation of T • PARK, of which 43.55 million kWh of the power generated was used for operating the T • PARK facilities, and 2.46 million kWh was exported to the public power grid.

[&] As the “Landfill Gas Utilisation Project” turned landfill gas into synthetic natural gas for utilisation and was not actually generating power, the annual power generation figure listed in the table is the potential power generation of the project in 2018. The projection method made reference to the technical information of other landfill gas power generation projects.

^{**} The figure is the actual power generation of O • PARK from October to December 2018, of which 1.85 million kWh of the power generated was used for operating the O•PARK facilities, and 0.61 million kWh was exported to the public power grid.

[@] Projected on the basis of CLP’s Bulk Tariff.

2. The names of the government buildings and facilities where RE projects were installed by the ArchSD, the WSD, the DSD and the CEDD, the types of the RE installations, the work progress, the annual power generation, the estimated energy cost savings and the works expenditure involved in 2019 are tabulated below:

Government department	Name of government buildings/public facilities+	Work progress	Type of RE installations	Annual power generation (kWh)*	Annual energy cost savings* (\$)	Expenditure of projects (\$'000)
ArchSD	Government Complex in Area 14 (Siu Lun), Tuen Mun	Scheduled for completion in 2019	PV system and solar water heating system	39 000	46,800 [^]	1,830
	Sports centre in Area 24D, Sha Tin	Scheduled for completion in 2019	PV system and solar water heating system	34 000	40,800 [^]	1,860

Government department	Name of government buildings/public facilities+	Work progress	Type of RE installations	Annual power generation (kWh)*	Annual energy cost savings* (\$)	Expenditure of projects (\$'000)
	Renovation works for the West Wing of the former Central Government Offices for office use by the Department of Justice and law-related organisations	Scheduled for completion in 2019	PV system	13 000	15,600^	970
	West Kowloon Government Offices	Scheduled for completion in 2019	PV system and solar water heating system	83 000	99,600^	3,750
	A 30-classroom primary school at Site KT2b, Development at Anderson Road, Kwun Tong	Scheduled for completion in 2019	PV system	7 200	8,640^	465
	Staff quarters for Correctional Services Department at Tin Wan, Aberdeen	Scheduled for completion in 2019	PV system	600	720^	600
	A 30-classroom secondary school at site 1A-2, Kai Tak development	Scheduled for completion in 2019	PV system	8 300	9,960^	760
	Liantang/Heung Yuen Wai Boundary Control Point and associated works – construction of boundary control point buildings and associated facilities	Scheduled for completion in 2019	PV system and solar water heating system	33 000	39,600^	1,400
	A school for social development for boys in Area 2B, Tuen Mun	Scheduled for completion in 2019	Solar water heating system	13 000	15,600^	200
	Redevelopment of Kwun Tong staff quarters at Tseung Kwan O Road, Kowloon	Scheduled for completion in 2019	PV system	5 000	6,000^	500
	A special school for students with mild, moderate and severe intellectual disabilities in Area 108, Tung Chung	Scheduled for completion in 2019	PV system	7 200	8,640^	680

Government department	Name of government buildings/public facilities+	Work progress	Type of RE installations	Annual power generation (kWh)*	Annual energy cost savings* (\$)	Expenditure of projects (\$'000)
	Hong Kong Wetland Park	Scheduled for completion in 2019	PV system	36 000	43,200^	4,500
WSD	Shatin Water Treatment Works	Installation in progress; scheduled for testing within 2019	Hydropower system	300 000	360,000^	15,000
	Tai Po Water Treatment Works	Testing in progress; scheduled for commissioning within 2019	PV system	268 200	321,840^	9,980
DSD	Yuen Long Sewage Treatment Works	Scheduled for completion in 2019	Biogas	180 000	216,000^	6,200
	Shatin Sewage Treatment Works	Scheduled for completion in 2019	Biogas	1 000 000	1,200,000^	17,300
CEDD	Sharp Island Pier, Sai Kung	Completed in 2019	PV system	2 600	3,120^	550
	Kai Tak Development – Stages 3A and 4 infrastructure at former north apron (pumping stations NPS and PS2)	Testing of the facility completed; scheduled for completion in 2019	PV system	59 000	70,800^	680
	Liantang/Heung Yuen Wai Boundary Control Point Sewage Treatment Works	Scheduled for completion in 2019	PV system	23 000	27,600^	1,600
	Administration building in tunnel area on a connecting road at Liantang/Heung Yuen Wai Boundary Control Point	Scheduled for completion in 2019	PV system	29 000	34,800^	3,800
	Administration building in tunnel area on a connecting road at Liantang/Heung Yuen Wai Boundary Control Point	Scheduled for completion in 2019	Solar water heating system	60 000	72,000^	1,980

- + Excluding buildings and facilities installed with small-scale RE projects such as lighting systems used in open spaces and public parks.
- * The figure denotes the estimation of annual power generation and energy cost savings made during the design stage of the RE installations.
- ^ Calculated based on the average net tariff rate of the two power companies in 2019 (i.e. \$1.2 per kWh of electricity).

The estimation of energy cost savings in parts (1) and (2) of the reply has not taken into account some relevant factors, such as the possible increase/decrease in size or service hours of the relevant government buildings or public facilities in the relevant periods, the changes of tariffs in the relevant periods, the actual weather conditions (e.g. cloudiness may affect the performance of the PV systems), etc. These limitations should be noted for any comparison of the estimates.

3. The Government has set the target of 5% reduction in the electricity consumption of government buildings in the financial years from 2015-16 to 2019-20, under comparable operating conditions in 2013-14. In this connection, we conducted energy audits on about 340 main government buildings and have earmarked about \$900 million for the progressive implementation of the energy saving projects. According to the assessment of the Electrical and Mechanical Services Department, the electricity consumption of government buildings up to 2017-18 has reduced by about 4.9%. Taking into account that more energy saving projects will be completed successively in 2018-19 and 2019-20, we believe that the electricity saving target of 5% can be achieved in 2019-20.

- End -

CONTROLLING OFFICER'S REPLY

ENB359

(Question Serial No. 4380)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (2) Power
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

Regarding external lighting installations, the relevant questions are as follows:

1. Please advise on the details of the current work on the implementation of the Charter on External Lighting (the Charter), including its progress, effectiveness, as well as the expenditure and manpower resources involved;
2. It is mentioned by the Administration that it will continue to support the Working Group on External Lighting (WGEL) to conduct a review of the Charter. Please advise on the progress of the review, including the scope of the review, the time by which the review is expected to be completed, the expenditure and manpower arrangements involved;
3. The Administration will continue to promote the Guidelines on Industry Best Practices for External Lighting Installations (the Guidelines) and the Charter in the coming year. Please advise on the relevant details, the estimated expenditure and manpower resources to be involved;
4. How will the Administration promote the Charter and the Guidelines to owners and responsible persons of external lighting installations in a targeted manner? What is their reaction? What incentives has the Administration provided for them to follow the Charter and the Guidelines?
5. Is there any improvement to the nuisance and energy wastage problems caused by external lighting upon the implementation of the above measures? What other measures the Administration has in place to improve the energy wastage problem caused by external lighting installations?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 74)

Reply:

Regarding parts (1), (3), (4) and (5) of the question, since the Charter on External Lighting (the Charter) took effect in April 2016, nearly 5 000 participants from different sectors, including building management, property development, hotel and catering, retail, laundry, banking, telecommunications and real estate agencies, as well as schools, public utilities and public/non-governmental organisations, have signed the Charter. Although the Charter is a

voluntary document, most of the participants take their pledge seriously. Our on-site compliance checks conducted in 2017 and 2018 show that over 99% of the participants have followed the switch-off requirement.

The Environment Bureau (ENB) has been committed to promoting the Guidelines on Industry Best Practices for External Lighting Installations (the Guidelines) and the Charter. For instance, the ENB held a total of 30 discussion sessions between May 2016 and February 2018 to appeal to Charter participants and members of the relevant professional bodies, trade associations and public organisations to comply with the Guidelines when planning for or managing their external lighting installations, and to adopt the good practices stated in the Guidelines. The content of discussion sessions included operating hours for lighting installations, control on lighting, light nuisance control measures, energy efficiency measures, lighting installation project design planning and glare prevention.

In respect of promoting the Charter, the ENB has published a list of participants on the Charter's website and has distributed labels and certificates to participants for display at their properties/shops to show that they have signed the Charter, as well as to raise public awareness of the Charter. We plan to hold an award ceremony later this year to commend participants who have fulfilled the switch-off pledge. The ENB has been working closely with the Working Group on External Lighting (WGEL) and liaising with the relevant trade associations and non-governmental organisations to invite owners or responsible persons of external lighting installations to sign the Charter. The ENB will continue with the above work. To better promote the Charter, the ENB has also launched a Partnership Scheme to invite advertising companies, trade associations/professional bodies, etc. to encourage, through their network, the premises with external lighting installations to sign up to the Charter.

The above work is undertaken by the existing staff of the ENB. As the staff members concerned are also responsible for other duties, we do not have a separate breakdown of the staff costs involved for promoting the Charter. As for other expenditures on implementing and promoting the Charter (such as costs of the award ceremony and promotion costs), the estimated expenditure for 2019-20 is about \$3 million.

Regarding part (2) of the question, the scope of work of the WGEL includes promotion of the Charter, reviewing its effectiveness and advising the Government on more options to effectively manage external lighting. The WGEL is now engaging consultancies through the ENB to conduct an opinion survey to gauge the views of various sectors and members of the public towards the current situation and regulation of external lighting; and to look into regulatory arrangements adopted by other economies and cities for external lighting installations and consider whether there are any outside experiences, measures and standards that Hong Kong can learn from. In addition, we plan to measure the changes of illumination level in different districts in Hong Kong to assess the effectiveness of the Charter. The WGEL expects to complete the review and submit its recommendations to the Government in the first half of 2020.

The above work is undertaken by the existing staff of the ENB. As the staff members concerned are also responsible for other duties, we do not have a separate breakdown of the staff costs involved in respect of the Charter. As for other expenditures on reviewing the effectiveness of the Charter (such as the consultancy study and opinion survey), the estimated expenditure for 2019-20 is about \$4 million.

- End -

CONTROLLING OFFICER'S REPLY

ENB360

(Question Serial No. 4381)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Since the introduction of Feed-in Tariff (FiT) by the two power companies under the new Scheme of Control Agreements, many private companies have provided relevant consultancy service or installation service for solar panels. Recently, there were even companies suspected of launching investment plans for public funding:

1. If members of the public make complaints (such as having queries about the services of companies or misleading publicity, etc.) against the companies providing consultancy services on FiT or their investment plans, which government department(s) will be responsible for handling these complaints? Please list the relevant government department(s) by type of complaints.
2. Is there any staff or specific department under the Environment Bureau which is responsible for supervising the implementation of FiT? If yes, what are the details? What is the scope of supervision?
3. What is the total number of complaints received by various government departments since the introduction of FiT? Please list the number of complaints by department.
4. Does the Environment Bureau have any current plan to conduct reviews with the two power companies regarding the procedures and guidelines for implementing FiT? If yes, what are the details?

Asked by: Hon HUI Chi-fung (LegCo internal reference no.: 75)

Reply:

1 and 3

The Electrical and Mechanical Services Department (EMSD) has set up a hotline since May 2018, mainly for handling enquiries about renewable energy (RE) from the private organisations and the general public and offering technical advice to them. Complaints have also been received occasionally. From the establishment of the hotline until the end of February 2019, the EMSD has received over 1 000 enquiries/complaints in total, most of

which concerning technical issues of solar photovoltaic systems and matters in relation to suppliers/contractors of RE equipment. Depending on the subjects of the enquiries/complaints, the EMSD will invite relevant government departments to provide advice or refer the enquiries/complaints to relevant government departments for follow-up. The EMSD does not keep a breakdown on the numbers and types of enquiries/complaints, or a breakdown on the government departments responsible for handling such enquiries/complaints. In addition, for enquiries/complaints that are made directly to and handled by other government departments, the Environment Bureau/EMSD does not keep records of such information.

2 and 4

Under the Scheme of Control Agreements (SCAs) signed between the Government and the power companies, the two power companies have introduced their Feed-in Tariff (FiT) Schemes in October 2018 and January 2019 respectively. The power companies will review with the Government the FiT rates annually and the FiT arrangements from time to time, having regard to the implementation of the FiT. Since the staff responsible for promoting the development of RE are also responsible for monitoring of the FiT implementation and other duties, a breakdown on staff establishment involved is not available.

- End -

CONTROLLING OFFICER'S REPLY**ENB361****(Question Serial No. 6495)**Head: (137) Government Secretariat : Environment BureauSubhead (No. & title): (-) Not SpecifiedProgramme: (-) Not SpecifiedControlling Officer: Permanent Secretary for the Environment (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

Please specify the numbers and details of any visits to various District Councils (DCs) made and any district activities attended by the Secretary for the Environment in the past 2 years.

District	DC Meetings Attended	District Visits Made	Community Activities Attended	Government Activities Attended
Central and Western	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Eastern	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Southern	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Wan Chai	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Kowloon City	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Kwun Tong	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Sham Shui Po	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Yau Tsim Mong	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Wong Tai Sin	Date:	Date:	Date:	Date:

	Venue: Details:	Venue: Details:	Venue: Details:	Venue: Details:
Islands	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Kwai Tsing	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
North	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Sai Kung	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Sha Tin	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Tai Po	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Tsuen Wan	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Tuen Mun	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:
Yuen Long	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:	Date: Venue: Details:

Asked by: Hon KWOK Ka-ki (LegCo internal reference no.: 475)

Reply:

The Secretary for the Environment has visited 18 District Councils in total in the past two financial years. The details are as follows:

<u>District</u>	<u>Date</u>
Central and Western	4 October 2017
Eastern	22 March 2018
Southern	15 October 2018
Wan Chai	22 June 2018
Kowloon City	21 January 2019
Kwun Tong	27 August 2018

Sham Shui Po	16 July 2018
Yau Tsim Mong	3 November 2017
Wong Tai Sin	29 August 2017
Islands	27 September 2017
Kwai Tsing	2 August 2018
North	28 February 2018
Sai Kung	8 January 2018
Sha Tin	30 November 2018
Tai Po	28 November 2018
Tsuen Wan	18 January 2018
Tuen Mun	20 April 2018
Yuen Long	19 March 2019

The Secretary for the Environment attends district activities organised by the Government and various organisations from time to time. Given the large number of these activities, we do not have a statistical breakdown by district and by event organiser.

- End -

CONTROLLING OFFICER'S REPLY

ENB362

(Question Serial No. 7242)

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (-) Not Specified

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

Regarding the use of social network, would the Administration inform this Committee of the following:

1. The expenditures and staff establishment of the Environment Bureau (ENB) for using social network for publicity in the past 3 years.
2. What criteria will the ENB use to assess the effectiveness of the above publicity means and whether the provision is used properly?

Asked by: Hon KWONG Chun-yu (LegCo internal reference no.: 91)

Reply:

The details of the expenditures and staff establishment of the Environment Bureau for using social network for publicity and the assessment of the effectiveness of the above publicity means and whether the provision was used properly in the past 3 years are as follows:

Year	Publicity channels (Internet/social media)	Project name	Name of web page/ social media (e.g. Facebook/ Google+/ Sina Weibo/ Twitter)	Expenditure involved (\$) (Note 3)	Manpower involved	Method to assess the effectiveness of the measure	Whether the expenditure was used properly (Yes/No)
2016-17	Internet	Promoting the public engagement on “Promotion of sustainable consumption of biological resource” under the Council for Sustainable Development	Yahoo! (web page of Yahoo Hong Kong)	95,000	The work was undertaken by the existing staff and there is no breakdown on the manpower resources involved in individual work items.	Effectiveness was assessed based on hit rate and frequency of exposure	Yes
2016-17	Internet and social media	Promoting the public engagement on “Promotion of sustainable consumption of biological resource” under the Council for Sustainable Development	Web page, mobile application and Facebook page of On.cc	287,600	The work was undertaken by the existing staff and there is no breakdown on the manpower resources involved in individual work items.	Effectiveness was assessed based on hit rate and frequency of exposure	Yes
2016-17	Internet and social media	Promoting the public engagement on “Promotion of sustainable consumption of biological resource” under the Council for Sustainable Development	Web page, mobile application and Facebook page of Metro Daily	Note 1	The work was undertaken by the existing staff and there is no breakdown on the manpower resources involved in individual work items.	Effectiveness was assessed based on hit rate and frequency of exposure	Yes
2016-17	Internet and social media	Promoting the public engagement on “Promotion of sustainable consumption of biological resource” under the Council for Sustainable Development	Web page, mobile application and Facebook page of AM730	Note 2	The work was undertaken by the existing staff and there is no breakdown on the manpower resources involved in individual work items.	Effectiveness was assessed based on hit rate and frequency of exposure	Yes
2016-17 – 2018-19	Social media	Setting up and maintaining the Facebook page and Instagram page of the Secretary for the Environment	Facebook and Instagram	The work was undertaken by the existing staff and there is no breakdown on the manpower resources and expenditure involved.	The work was undertaken by the existing staff and there is no breakdown on the manpower resources and expenditure involved.	Effectiveness was assessed based on hit rate and frequency of exposure	Yes

Note 1: As the advertisement placed on Metro Daily was one of the services provided under a concessionary package, there is no breakdown on the expenditure figures. The total expenditure of the concessionary package was \$42,000, which included 1 newspaper

advertisement and 1 Internet and social media advertisement for an 8-day period including production cost.

Note 2: As the advertisement placed on AM730 was one of the services provided under a concessionary package, there is no breakdown on the expenditure figures. The total expenditure of the concessionary package was \$41,400, which included 1 newspaper advertisement and 1 Internet and social media advertisement for an 8-day period including production cost.

Note 3: The above expenditure figures are rounded off to the nearest hundred dollars.

- End -

CONTROLLING OFFICER'S REPLY**ENB363****(Question Serial No. 3476)**

Head: (137) Government Secretariat : Environment Bureau

Subhead (No. & title): (-) Not Specified

Programme: (2) Power

Controlling Officer: Permanent Secretary for the Environment (Donald TONG)

Director of Bureau: Secretary for the Environment

Question:

The Government launched the Charter on External Lighting (the Charter) in 2016 to invite owners of and responsible persons for external lighting installations to switch off lighting installations of decorative, promotional or advertising purposes which affect the outdoor environment during the preset time (i.e. 11 p.m. or midnight to 7 a.m. on the following day); and revamped the Working Group on the Promotion of the Charter as the Working Group on External Lighting (WGEL). In this connection, would the Government advise this Committee on the following:

1. What were the numbers of complaint cases received by the Administration about nuisance caused by external lighting in the past 2 years? (please provide a breakdown by District Council districts)
2. What is the current manpower status of the team responsible for external lighting under the Environmental Protection Department (EPD)?
3. Will the Administration allocate additional resources to conduct study on the impact of light nuisance on health and relevant healthcare service needs? If yes, what are the details? If no, what are the reasons?
4. What are the numbers of owners of and responsible persons for external lighting installations who have signed the Charter at present? Will the Government consider allocating additional resources to provide greater incentives to encourage more relevant parties to sign up to the Charter? If yes, what are the details? If no, what are the reasons?

Asked by: Hon LEUNG Mei-fun, Priscilla (LegCo internal reference no.: 56)

Reply:

(1) The numbers of complaints against external lighting received by the Environmental Protection Department (EPD) in the past 2 years are as follows:

District	2017	2018
Central and Western	30	44
Wan Chai	51	41

District	2017	2018
Eastern	28	37
Southern	5	25
Yau Tsim Mong	53	56
Sham Shui Po	19	36
Kowloon City	39	33
Wong Tai Sin	8	5
Kwun Tong	10	16
Tsuen Wan	1	23
Tuen Mun	13	24
Yuen Long	17	28
North	8	13
Tai Po	8	16
Sai Kung	27	32
Sha Tin	14	15
Kwai Tsing	20	28
Islands	4	5
Total	355	477

(2) The above work is undertaken by the existing staff of the EPD. As the staff members concerned are also responsible for other duties, we do not have a separate breakdown of the resources involved for the above work.

(3) The Government and the Hospital Authority have no plan to conduct any study on the impact of light nuisance on health and relevant healthcare service needs at present.

(4) Since the Charter on External Lighting (the Charter) took effect in April 2016, nearly 5 000 participants from different sectors, including building management, property development, hotels and catering, retail, laundry, banking, telecommunications and real estate agencies, as well as schools, public utilities and public/non-governmental organisations, have signed the Charter.

The Environment Bureau (ENB) has published a list of participants on the Charter's website and has distributed labels and certificates to participants for display at their properties/shops to show that they have signed the Charter, as well as to raise public awareness of the Charter. We plan to hold an award ceremony later this year to commend participants who have fulfilled the switch-off pledge. In addition, to better promote the Charter, the ENB has launched a Partnership Scheme to invite advertising companies, trade associations/professional bodies, etc. to encourage, through their network, other companies, business contacts and partners, clients, etc. to sign up their premises with external lighting installations to the Charter. The ENB will continue with the above work.

- End -

CONTROLLING OFFICER'S REPLY

ENB364

(Question Serial No. 3653)

Head: (137) Government Secretariat : Environment Bureau
Subhead (No. & title): (-) Not Specified
Programme: (1) Director of Bureau's Office
Controlling Officer: Permanent Secretary for the Environment (Donald TONG)
Director of Bureau: Secretary for the Environment

Question:

1) Will the Bureau please provide the date of incorporation, objectives and mode of operation of the following funds; and the balance, government injection amount, investment or other income and total expenditure of the funds in 2015-16, 2016-17 and 2017-18? If there are other funds within the purview of the Bureau not being listed below, please also provide information as per the items above.

1. Environment and Conservation Fund
2. Pilot Green Transport Fund
3. Sustainable Development Fund
4. Recycling Fund

2) Regarding the funds overseen by the Bureau, how will the Government assess and monitor the situation of various subsidies? Are there any indicators for reviewing the effectiveness of the funds? If yes, what are the latest situations? If no, what are the reasons?

Asked by: Hon MA Fung-kwok (LegCo internal reference no.: 14)

Reply:

1) For the 4 funds (namely Environment and Conservation Fund, Pilot Green Transport Fund, Sustainable Development Fund and Recycling Fund) under the purview of the Environment Bureau, the dates of incorporation, objectives and modes of operation, the amount of capital injections as at 28 February 2019, the balances of the respective financial years from 2015-16 to 2017-18, the investment or other income and total expenditures in the respective financial years from 2015-16 to 2017-18 are set out in the Annex.

2) Regarding the assessment and monitoring of the situation of various subsidies, as well as the indicators for reviewing the effectiveness of the funds, the details are as follow:

Environment and Conservation Fund (ECF)

The ECF has a well-established assessment and monitoring system to ensure that supported projects meet funding conditions as well as their objectives and planned deliverables as set out in the project proposals approved.

Recipient organisations are required to submit regular progress reports to the ECF Secretariat (the Secretariat). Subsequent payments to the recipient organisations are made by instalments subject to the project's satisfactory progress. Progress reports of individual projects will be passed to the Environmental Protection Department (EPD), the Agriculture, Fisheries and Conservation Department (AFCD) or relevant government departments according to the nature of the projects for examination to ensure the satisfactory progress of the projects. Officers of the Secretariat, the EPD and the AFCD may carry out inspections to examine the progress of the projects. Recipient organisations are required to submit a completion report together with a duly certified statement of account upon completion of the projects. Final disbursement to the recipient organisation will only be made after the vetting subcommittee or the ECF Committee is satisfied with the effectiveness of the project. Non-compliance with the funding conditions may result in the suspension or termination of ECF funding support, and may affect the recipient organisation's future chance of receiving ECF funding support.

Generally speaking, when reviewing the effectiveness of a project, the vetting subcommittee or the ECF Committee will consider if the project contributes to the overall environment of Hong Kong or raise environmental awareness of the local community, or mobilise the community to take action to improve the environment. The benefits of the project should also accrue to the local community as a whole, and not just to individuals, a single private organisation or a consortium of private companies. In addition, the vetting subcommittee or the ECF Committee will assess the effectiveness of a project according to its nature, as well as the outcomes and deliverables expected to be derived from the project. The Secretariat will invite an external assessor to conduct independent assessment on the overall effectiveness for some of the completed environmental research and technology demonstration projects, based on the project proposals and research reports. Besides, in order to enhance the transparency, the brief descriptions of the approved projects (such as the names of recipient organisations and projects, objectives, amount of funding approved and summary of the completion reports) will be uploaded to the ECF's website.

Pilot Green Transport Fund (PGTF)

Trial participants of the PGTF are required to sign agreements with the Government, to record the trial data for evaluating the effectiveness and performance of the transport technologies concerned, and to share with the peers the trial results. The EPD also commissions independent third party assessors to monitor the trials and assess the trial results of the transport technologies, as well as record the opinions of the participants and their operators (such as drivers). The trial reports will be uploaded to the EPD's website.

As at the end of February 2019, the PGTF approved 139 trials. The trials of various technologies have been completed progressively. The trial results will provide useful reference for the trades and help the Government refine the relevant policies, meeting the objectives of the PGTF.

The EPD will continue to keep in view the development of various green innovative transport technologies and encourage the transport sectors to make use of the PGTF to try out other green innovative transport technologies and other suppliers to introduce more products to the local market. Moreover, the EPD is reviewing the scope of the PGTF along the following directions to further facilitate wider use of green innovative transport technologies by the transport sectors:

- Whilst the current conditions for approving subsidy for the PGTF trials (i.e. trials of technologies that stand a good chance of coping with the local operational requirements and will be adopted by the relevant transport sectors for wider use upon successful trial) should be retained, we should review if improvements can be made in various areas such as extending the subsidy scope to cover those vehicle types not included, applicants' eligibility, time required for vetting the applications, subsidy levels, limits on the number of applications for each type of technologies and conditions for receiving the subsidy (including the trial time for relevant technologies), etc.
- The review should also explore means to encourage wider use of technologies that have been proved by the trials to be relatively mature and suitable for adoption locally (e.g. whether subsidy should be provided to the trades for procuring the products for use and not for trial). We also need to map out the specifications and criteria for implementation.

The EPD will consult the trades, stakeholders and the Panel on the Environmental Affairs of the Legislative Council (LegCo) after drawing up the details of the review content and the relevant proposals with the aim of completing the review in 2019.

Sustainable Development Fund (SDF)

The Environment Bureau provides secretariat support for the Council for Sustainable Development (SDC). The SDF Secretariat will monitor the funded projects of the SDF on the basis of the approved project plans and ensure that the funded projects will meet their targets through the established mechanism, which includes scrutinising the progress reports submitted by the grantees, conducting site inspections and opinion surveys on the target groups. The relevant information will also be submitted to members of the Education and Publicity Sub-committee of the SDC (the Sub-committee) for perusal. The Sub-committee will conduct a review on SDF when necessary, and will explain the assessment criteria in a more specific manner and adjust the weightings among different criteria to reflect more clearly the requirements on the funded projects, so as to ensure the continued effectiveness of the SDF.

Recycling Fund

In order to assess the actual effectiveness of the approved projects under the Recycling Fund, the applicant of each approved project is required to enter into an agreement or undertaking with the EPD, stating clearly the project's key performance indicators (e.g. the additional quantity of recyclables or recycled products being processed, the reduced amount of waste disposed of at landfills, etc.), and milestones of deliverables (e.g. installing new

equipment, organising activities, etc.). Such information must be recorded in detail in the progress reports, final report and audited accounts, etc. submitted by the applicant. Reimbursements will only be made upon satisfaction of the indicators as stated in the signed agreement by the applicant.

As at 28 February 2019, 175 approved projects have been or will be commenced, processing or reducing a total of some 142 000 tonnes of recyclables originally to be disposed of at landfills.

Information of funds under the purview of the Environment Bureau

Name of fund	Date of incorporation	Objectives	Mode of operation	Total amount of capital injections (Note 1)	Balance at the end of the financial year	Investment or other income	Total expenditure (as at 31 March 2018)
Environment and Conservation Fund	June 1994	To provide funding support to educational, research and other programmes and activities in relation to environmental protection and nature conservation	Established under the Environment and Conservation Fund Ordinance (Cap. 450)	\$6.735 billion (Note 2)	\$6.011 billion (2015-16)	\$269 million (2015-16)	(Note 3)
					\$5.947 billion (2016-17)	\$179 million (2016-17)	
					\$5.893 billion (2017-18)	\$184 million (2017-18)	
Pilot Green Transport Fund	March 2011	To provide subsidy for application by the public transport sectors, goods vehicle operators and charitable/ non-profit making organisations to try out green innovative transport technologies	The Finance Committee of the LegCo approved the provision under “Head 44 – Environmental Protection Department” and “Subhead 700 – General non-recurrent” for the establishment of this fund.	\$300 million	\$264 million (2015-16)	(Note 4)	\$49 million
					\$254 million (2016-17)		
					\$251 million (2017-18)		
Sustainable Development Fund	June 2003	To provide financial support for initiatives that will enhance public awareness of the principles of sustainable development and encourage sustainable	The Finance Committee of the LegCo approved the provision under “Head 142 – Government Secretariat: Offices of the Chief Secretary for Administration and the Financial Secretary” and “Subhead 700 – General	\$100 million	\$50 million (2015-16)	(Note 4)	\$59 million
					\$45 million (2016-17)		
					\$41 million		

Name of fund	Date of incorporation	Objectives	Mode of operation	Total amount of capital injections (Note 1)	Balance at the end of the financial year	Investment or other income	Total expenditure (as at 31 March 2018)
		practices among members of the public	non-recurrent” for the establishment of the fund. This fund was subsequently transferred to “Head 137 – Government Secretariat: Environment Bureau” and “Subhead 700 – General non-recurrent”.		(2017-18)		
Recycling Fund	July 2015	To promote the sustainable development of the recycling industry	The Finance Committee of the LegCo approved the provision under “Head 44 – Environmental Protection Department” and “Subhead 700 – General non-recurrent” for the establishment of this fund.	\$1 billion	\$970 million (2015-16) \$934 million (2016-17) \$910 million (2017-18)	(Note 5)	\$90 million

Note 1: All capital injections are government injections. Except for the Environment and Conservation Fund, the figures shown are the capital injections at the time of the establishment of the funds.

Note 2: The amount of government injection at the time of the establishment of the fund was \$50 million. 6 additional government injections have been made subsequently. As at the end of February 2019, the total amount of capital injection was \$6.735 billion.

Note 3: In 2017-18, the total grant approved under the Environment and Conservation Fund was \$203 million.

Note 4: Balance was kept in the General Revenue Account, and the investment was not carried out by the Environment Bureau.

Note 5: Balance was kept in the General Revenue Account, and the investment was not carried out by the Environment Bureau. In addition, a small amount of interest derived from the funding for the year deposited in a specific bank account for the Recycling Fund would be appropriated to the Recycling Fund for operational use.

- End -

CONTROLLING OFFICER'S REPLY**ENB365****(Question Serial No. 4058)**Head: (137) Government Secretariat : Environment BureauSubhead (No. & title): (-) Not SpecifiedProgramme: (2) PowerControlling Officer: Permanent Secretary for the Environment (Donald TONG)Director of Bureau: Secretary for the EnvironmentQuestion:

According to the 2019-20 Budget, the Administration will form a Working Group on External Lighting to review the effectiveness of the Charter on External Lighting. What were the numbers of complaints from the public received by the 18 District Councils about light nuisance caused by external lighting in the past 3 years? What were the details of handling the complaints and the results?

Asked by: Hon QUAT Elizabeth (LegCo internal reference no.: 125)Reply:

(1) The numbers of complaints against external lighting received by the Environmental Protection Department (EPD) in the past 3 years are as follows:

District	2016	2017	2018
Central and Western	29	30	44
Wan Chai	54	51	41
Eastern	16	28	37
Southern	14	5	25
Yau Tsim Mong	56	53	56
Sham Shui Po	18	19	36
Kowloon City	24	39	33
Wong Tai Sin	1	8	5
Kwun Tong	12	10	16
Tsuen Wan	6	1	23
Tuen Mun	11	13	24
Yuen Long	25	17	28
North	11	8	13

District	2016	2017	2018
Tai Po	1	8	16
Sai Kung	4	27	32
Sha Tin	30	14	15
Kwai Tsing	18	20	28
Islands	5	4	5
Total	335	355	477

Upon receipt of complaints against light nuisance caused by external lighting, the EPD relayed the complainants' concerns and requests to the persons responsible for the lighting installations in question, and advised them to refer to the Guidelines on Industry Best Practices for External Lighting Installations and take appropriate measures to minimise the impact of the lighting installations on the residents in the vicinity. Most of the persons responsible for the lighting installations would, upon receipt of complaints, adopt measures to minimise light nuisance as far as practicable.

- End -