

立法會

Legislative Council

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Report of the Panel on Environmental Affairs for submission to the Legislative Council

Purpose

This report gives an account of the work of the Panel on Environmental Affairs (the Panel) during the Legislative Council (LegCo) session 2010-2011. It will be tabled at the meeting of the Council on 13 July 2011 in accordance with Rule 77(14) of the Rules of Procedure of the Council.

The Panel

2. The Panel was formed by a resolution passed by the Council on 8 July 1998 and as amended on 20 December 2000, 9 October 2002, 11 July 2007 and 2 July 2008 for the purpose of monitoring and examining Government policies and issues of public concern relating to environmental and conservation matters. The terms of reference of the Panel are given in **Appendix I**.

3. The Panel comprises 16 members, with Hon CHAN Hak-kan and Hon Audrey EU elected as Chairman and Deputy Chairman respectively. The membership list of the Panel is in **Appendix II**.

Major Work

Air

4. The deteriorating air quality remained high on the agenda of the Panel. In view of the far-reaching implications of air pollution on public health, quality of life and long-term development of Hong Kong, members agreed that the Subcommittee on Improving Air Quality set up under the Panel should continue

to enable more focused discussion on the Administration's efforts in addressing air pollution. The Subcommittee held two meetings in the current legislative session to discuss the progress of measures under the Pearl River Delta Regional Air Quality Management Plan to achieve the 2010 emission reduction targets, the Study on Impact of Loss of Visibility on Mortality Risks by The University of Hong Kong, and the trend of primary nitrogen dioxide emissions from vehicles. Academia had been invited to present their studies on the latter two subjects.

5. The transport sector (including road and marine transport) is the second largest air pollution source in Hong Kong, accounting for about 6% of the local emissions of sulphur dioxide and 37% of local emissions of respirable suspended particulates and nitrogen oxides (NO_x) each. To encourage the transport sector to test out green and low-carbon transport technologies, the Financial Secretary announced in the 2010-2011 Budget Speech that a \$300 million Pilot Green Transport Fund (PGTP) would be set up for application by the transport industry, initially by public transport operators. PGTP aims to encourage the transport industry to introduce more innovative green technologies, and help nurture the building of green technologies in Hong Kong for promoting a low-carbon economy.

6. The Panel was consulted on the implementation framework of PGTP in December 2010. While welcoming the establishment of PGTF, some members stressed the need to foster closer cooperation between researchers and the transport trades so that emerging green transport technologies could be tested out in local conditions. However, they considered the scope of PGTP too narrow and suggested that academia or researchers who had the expertise in identifying suitable green and innovative technologies for testing out by transport operators should also be covered. Some other members were concerned that PGTF would only benefit major transport enterprises rather than individual operators, and that there might be difficulties in providing justifications on the selection of and the cost associated with the testing of product(s) involving propriety technology available from a single supplier.

7. Since franchised buses are the major cause of roadside air pollution on busy corridors, the Chief Executive announced in his 2010-2011 Policy Address that the ultimate policy objective is to have zero emission buses running across the territory. When the current bus franchises expire in the coming few years, the Administration will impose additional requirements in the new franchises for bus companies to switch to zero emission buses or the more environment-friendly buses when replacing existing ones, taking into account the feasibility and affordability of bus operators and passengers. As hybrid buses are superior to ordinary diesel buses in terms of fuel consumption and other environmental performance, introducing these buses to Hong Kong will

help reduce its carbon footprint and improve roadside air quality. To test the operational efficiency and performance of hybrid buses under local conditions and to collect operation data, the Administration proposes to fund the full cost of procuring six hybrid buses for use by the franchised bus companies along busy corridors.

8. The proposed trial of hybrid buses was discussed by the Panel in January 2011. Noting that the trial would only commence in the second half of 2012, members expressed concern about the long lead time for the franchised bus companies to upgrade their buses to cleaner ones. The Administration was urged to expedite the trial, and make reference to the similar experience in Shenzhen which had comparable weather conditions as Hong Kong. Panel members also suggested requiring bus companies to undertake to switch to zero emission buses or the most environment-friendly buses when replacing the existing ones. Other members however opined that it might not be financially viable for franchised bus companies to replace all the existing buses with hybrid buses given the higher cost of hybrid buses which was twice as much as conventional buses. There were also insufficient hybrid models for replacing the existing franchised bus fleet. In this connection, members considered that electric buses should also be tried out in addition to hybrid buses.

9. To prevent further release of asbestos, which is a proven carcinogen, into the ambient environment, the Administration has proposed to amend the Air Pollution Control Ordinance (Cap. 311) (APCO) to extend the current ban on import of blue and brown asbestos to all forms of asbestos, and also ban the supply and new use of all forms of asbestos. To avoid potential health hazard due to possible release of asbestos fibres into the environment in the course of loading, unloading and repackaging, the current exemption for transshipment goods under APCO will be removed.

10. The Panel was consulted on the proposed ban in April 2011. While supporting the ban, some members asked the Administration to consider if the proposed controls would apply to trans-shipment of asbestos which might only involve loading and unloading, without any repackaging or tampering of contents. Some other members also pointed out the need for preventive and enforcement actions to prevent the release of asbestos fibres in the course of demolition of aged buildings and village houses for redevelopment.

Climate change

11. Climate change is an important environmental issue that is affecting global sustainability. Greenhouse gas (GHG) is widely recognized as the primary cause of climate change. GHG affects the absorption, scattering and emission of radiation within the atmosphere and at the earth's surface. The

global increases in GHG concentration due to human activities (such as use of fossil fuels and change in land use) are raising the global temperature to artificially high levels and altering the nature climate cycle. In 2008, the Environmental Protection Department commissioned a consultancy study (the Study) to review and update the local inventories of GHG emissions and removals, assess the impacts of climate change in Hong Kong, and recommend long-term strategies and measures to reduce GHG emissions, as well as adapt to the unavoidable effects of climate change. On 10 September 2010, the Administration released the consultation document on Hong Kong's Climate Change Strategy and Action Agenda, which presents the proposals drawn up from the Study. The consultation document sets out a specific target for reducing Hong Kong's carbon intensity by 50% - 60% by 2020 as compared with 2005 level. The strategy and respective action agenda for reducing GHG emissions include optimizing energy efficiency, adopting green transport, promoting use of clean fuel for motor vehicles, turning waste to energy, and revamping fuel mix for electricity generation.

12. To gauge views on the consultation document, the relevant stakeholders, academia and green groups had been invited to attend a special meeting in November 2010. Panel members noted a suggestion for reducing carbon emissions by 25% - 40% and 80% by 2020 and 2050 respectively compared to the 1990 level. As regards the proposed increase in the share of nuclear power in the fuel mix for local electricity generation, some deputations expressed support for the proposal given the depletion of fossil fuels, rising cost of petroleum, and the lack of better fuel alternatives. Other deputations, however, were concerned about the risks associated with the use of nuclear power, particularly when there was no safe and permanent means of disposal of nuclear waste. Consideration should be given to increasing the shares of renewable energy and natural gas to be supplemented by energy conservation initiatives. In view of the far-reaching implications of climate change, the Panel urged the Administration to release the report of the Study, and extend the public consultation period.

13. The Administration released the report on the Study in December 2010, and briefed the Panel on the findings of the Study in February 2011. Panel members were dissatisfied that the report containing comprehensive data and information was made available only after the release of the consultation document. They were concerned that the public consultation was carried out in the absence of sufficient information. There were also insufficient details of the proposed measures for combating climate change. Noting that the Study had identified eight sectors which were more vulnerable to impacts of climate change, members stressed the need for inter-departmental efforts to mitigate the risks identified in the vulnerable sectors.

14. The Fukushima nuclear incident in March 2011 had aroused global concern about nuclear safety. The Panel held a special meeting in April 2011 to meet with deputations, and discuss the impacts of the development of nuclear energy for local power generation on Hong Kong. Panel members noted that views were divided on the use of nuclear power. Some deputations were of the view that nuclear energy was still a relatively safe and reliable source of energy supply with a low environmental footprint when compared with other energy sources. However, in the light of the Fukushima incident, the Administration should adopt a proactive and prudent approach in collaborating with the Mainland authorities to ensure safe design and operation of the existing and future neighbouring nuclear plants. Efforts should also be stepped up to raise public awareness of the merits and demerits of each fuel type, and the pertinent measures to be taken during emergency situations. Other deputations remained of the view that increasing nuclear power supply was not a sustainable way to reduce carbon emission, and that the potential risks and hazard of nuclear plants were a major concern. Besides, uranium mining was a polluting process and the highly radioactive waste was a potential threat to the environment and human beings if not properly handled and stored. The real solution to combat climate change was to adopt demand side management to reduce electricity demand and consumption.

Energy efficiency and conservation

15. Air conditioning accounts for 32% of Hong Kong's electricity consumption. The use of more efficient air conditioning systems would be an effective measure to conserve energy and reduce GHG. In June 2009, the Finance Committee approved the upgrading of the District Cooling System (DCS)¹ at the Kai Tak Development (KTD), to achieve a maximum annual saving in electricity consumption up to 85 million kWh, with a reduction of 59 500 tonnes of carbon dioxide emission per annum. The project was intended to be carried out under a single Design, Build and Operate (DBO) contract spanning over 17 years. In July 2009, the Administration initiated the tendering procedures but the returned prices of both the project cost and the operation cost far exceeded the original estimate of \$1,671 million. In view of the tender outcome and having reviewed the latest development plan of KTD, the Administration had refined the work requirements with more detailed site information, and adjusted the original procurement strategy by implementing DCS with three works phases. Based on the returned tenders for the first two phases in 2010, the estimated capital cost of Phases I and II is \$1,870 million in

¹ District Cooling System is a very large-scale centralized air conditioning system. It consists of one or more chiller plants to produce chilled water, and a closed loop network of underground pipes for distributing the chilled water to buildings within its service area for air conditioning purpose. The chilled water is pumped to individual buildings for use in their air conditioning systems and is then returned to the central chiller plant for re-chilling.

MOD prices, while the estimated cost for Phase III is \$1,780 million. The total project cost is therefore about \$3,650 million in money of the day prices, which exceeds the original project estimate by about \$1,980 million.

16. The Panel was consulted on the proposal to increase the project estimates for implementing Phases I and II in December 2010. While supporting DCS which would bring about significant environmental benefits, the Panel expressed grave concern about the substantial increase in project cost. Some members opined that if Phase III was an essential part of DCS, this should be implemented as soon as practicable to avoid further increase in project costs. On the financial viability of DCS, members noted that the Department of Justice had advised on the inclusion of a requirement in the land lease condition for all private non-domestic projects in KTD to subscribe to the DCS service. Some members were concerned about possible legal challenges by private developers who might be unwilling to abide by the mandatory subscription to DCS under the land lease. There was also a suggestion of extending to residential premises, including public housing estates.

17. In view of the growing public awareness on the impact of external lighting, the Administration commissioned in 2009 a consultancy study on external light from the perspectives of energy wastage and light nuisance. The study finds that light nuisance is a "localized" problem, which mainly occurs in commercial-cum-residential areas like Mongkok and Causeway Bay with high building density and intermingling of shops, entertainment venues and residential buildings. To address the concerns about external lighting, the Administration proposes to introduce a set of Guidelines on Industry Best Practices for External Lighting Installation to encourage voluntary action to minimize light nuisance and energy wastage, set the example by requiring individual departments to switch off external lightings which are for decorative and promotional purposes by 11 pm as far as possible, and set up a Task Force to advise on the development of technical standards and related supplementary parameters on appropriate lighting levels acceptable to local circumstances.

18. The Panel discussed the proposed way forward to address concerns on external lighting in March 2011. Some members held the view that light pollution was a result of poor planning to allow intermingling of residential and commercial buildings. Given that neon lights were one of the tourist attractions in Hong Kong, the proposal to switch off external lights after 11 pm might affect the night life in Hong Kong. In assessing the problem of light nuisance in Hong Kong, members suggested that reference should be made to experiences in cities like Las Vegas and Macau where neon lights were used to attract tourists. Other members however questioned the effectiveness of the Guidelines which were voluntary in nature and applicable to new lighting installations only. These members were skeptical that the Administration was

merely using the Guidelines as an excuse to procrastinate statutory control on external lighting.

Waste management

Management of municipal solid waste

19. In December 2005, the Government published "A Policy Framework for the Management of Municipal Solid Waste (2005-2014)", which sets out a comprehensive strategy consisting of a series of proven policy tools and measures to tackle the waste problem ahead, and to achieve the targets of waste avoidance. These targets were -

- (a) to reduce the amount of MSW generated in Hong Kong by 1% per annum up to the year 2014;
- (b) to increase the overall recovery rate of MSW to 45% by 2009 and 50% by 2014; and
- (c) to reduce the total MSW disposed of in landfills to less than 25% by 2014.

The MSW management for the next decade from 2005 to 2014 would place emphasis on community participation and the "polluter-pays" principle.

20. The development of EcoPark is one of the key initiatives in the Policy Framework to provide long-term land at affordable cost for the development of the recycling and environmental industry, with a view to encouraging investment in more advanced technologies and value-added processes in Hong Kong. The 20-hectare EcoPark is being developed in two phases. All six lots in Phase 1 of EcoPark have been leased for the recycling of waste cooking oil, waste metals, waste wood, waste computers, waste plastics, and waste car batteries. Taking into account experiences gained in tendering Phase 1 lots, and views of stakeholders, the Administration proposes to revise the leasing arrangements for Phase 2 lots to raise the attractiveness of EcoPark.

21. The Panel was consulted on the proposed leasing arrangements in November 2010. Panel members stressed the need for complementary policies to ensure the viability of recycling operations in EcoPark, and that the Administration should help promote the market for recycled products by taking the lead in procuring these green products. Some members noted that in the Public Accounts Committee (PAC) Report No. 54, the Director of Audit had pointed out that the inadequacies in the planning and administration of EcoPark had adversely affected the leasing of EcoPark Phase 1. These members were

disappointed that PAC's recommendations had not been reflected in the proposed leasing arrangements for EcoPark Phase 2.

22. Of the some 9 000 tonnes of MSW to be disposed of at the three existing landfills each day, about 3 280 tonnes (or 37%) are food waste with 960 tonnes generated from the commercial and industrial (C&I) sector. In the Policy Framework, it is proposed that biodegradable materials, such as food waste from C&I establishments, can be separated at source for biological treatment to produce renewable energy and compost products. With the experience gained from the Pilot Food Waste Treatment Facility, the Administration announced in the 2009-2010 Policy Address its intention to develop an Organic Waste Treatment Facilities (OWTF) in phases to treat and recycle source-separated organic waste from C&I establishments. Following a site search in 2007, Siu Ho Wan and Shaling have been selected for the development of the first and second phase of OWTF respectively. The proposed OWTF Phase I will have a designed capacity of 200 tonnes per day, and adopt anaerobic digestion and composting technologies to recycle organic waste into biogas and compost products. Biogas is a renewable energy and will be used to generate electricity for both internal use by OWTF and export to the grid.

23. The proposed development of OWTF Phase I was discussed at the Panel meeting in November 2010. While supporting for treatment of food waste, members stressed the need for measures to mitigate possible environmental nuisances associated with the operation of OWTF, particularly in the transport of organic waste. Given that the treatment capacity of OWTF Phase I was too small as compared to the total amount of food waste generated per day, some members suggested that more suitable sites should be identified for setting up additional OWTF and if this was not feasible, consideration should be given to expanding OWTF Phase I. Apart from food waste from C&I establishments, members opined that efforts should be made to encourage residential developments to provide on-site treatment facilities for food waste with reference to the experience of Park Island at Ma Wan.

24. The imminent expiry of the lifespan of the three existing landfills has prompted the Administration to review the action agenda outlined in the Policy Framework against the latest development. According to the action plan, a series of complementary measures on waste reduction at source will be introduced to raise the waste recovery rate to 55% by 2015. Efforts will be made to expedite the consultation exercise on extension of the Producer Responsibility Scheme (PRS) on Plastic Shopping Bags (PSBs), and the implementation plan on a new PRS on Waste Electrical and Electronic Equipment. Although overseas experiences have showed that MSW charging is effective in reducing waste, there is a need to engage the public in discussing

the objectives, principles and practicalities of various charging options. To ensure that MSW can continue to be properly managed in an environmentally acceptable manner, the Administration will ensure that the first integrated waste management facility and two organic waste treatment facilities will get through all necessary approvals for commissioning before or by 2018. While the introduction of modern facilities would help manage the daily waste generation, extension of landfills is still required as an indispensable element of the waste strategy.

25. The Panel was consulted on the action plan in January 2011. Given that Hong Kong was way behind many cities in respect of management of waste, the Panel was disappointed that no target had been set for waste reduction except for the target to raise the waste recovery rate to 55% by 2015. To solicit public support for MSW charging, members considered it necessary for the Administration to make it clear that MSW charging was not meant to increase revenue but to reduce waste generation. The levy collected should be ploughed back to assist the development of waste recycling industries to facilitate waste reduction and recycling. This would also help reduce the amount of waste to be disposed of at landfills, particularly when residents in the proximity of landfills were unwilling to accept any extension of landfill space.

26. On 17 May 2011, the Administration published the Consultation Document on the Extension of the Environmental Levy on Plastic Shopping Bags for a three-month public consultation. In gist, the Administration proposes to extend the mandatory PRS on PSBs to include all retailers regardless of their business scale. Upon implementation, a charge of 50 cents would be required for each PSB distributed at any retail outlets in Hong Kong, except for PSBs that are used directly and solely to carry food for hygiene reasons. It also proposes that the charge could be retained by retailers without the need to remit to the Administration to obviate the associated registration and reporting requirements.

27. The Consultation Document was discussed by the Panel in May 2011. While acknowledging that there was a substantial decrease in landfill disposal of PSBs distributed by registered retail outlets under the Levy Scheme, members noted that the disposal of other types of bags at landfills (including reusable bags, paper shopping bags and plastic garbage bags) was on the rise. Some members expressed concern that if retailers were not required to remit the charge to the Administration, some retailers might distribute PSBs free of charge to attract customers, thereby defeating the purpose of the Levy Scheme. To ease the burden of small and medium enterprises (SMEs) in complying with the administrative requirements under the "remittance" approach of the existing legislation on a quarterly basis, consideration could be given for them to submit their returns on a half-yearly basis. Other members supported the dual system

under which the "remittance" approach should remain status quo for existing registered retailers which were mostly chain operators, while the "retention" approach should apply to the newly covered retailers which are mostly SMEs. To reduce PSBs at source, some members suggested restricting the import of PSBs, or applying the levy to manufacturers and importers of PSBs direct.

Depositing of abandoned construction and demolition materials on private land

28. The problem of fly-tipping and land filling activities has all along been a public concern. Given the inadequacy of the existing regulatory regime in controlling these activities, many parts of the New Territories has become dumping grounds, causing unacceptable impacts on the surrounding. To enable more focused discussion on the Administration's efforts in tackling fly-tipping, a Subcommittee on Combating Fly-tipping has been set up under the Panel. The Subcommittee held two meetings in the current legislative session to discuss the progress of enhanced control measures against the depositing of C&D materials and individual cases. Subcommittee members agreed that the Subcommittee should be dissolved upon submission of its report to the Panel.

Sewage

29. The Panel had considered a number of sewerage projects. While agreeing that these projects should be expedited to improve the environment and to create job opportunities for local workers, members stressed the need to ensure proper connections to the public sewerage by village houses as otherwise the efforts made in improving the sewerage network would be futile.

Nature conservation

30. The Environment and Conservation Fund (ECF) was established in 1994 to provide financial support for research, waste recovery, and educational projects that promote environmental protection and nature conservation. Since its establishment, ECF has received a number of capital injections from the Administration, including an injection of \$1 billion in 2008. As at end February 2011, ECF has approved over 1 600 projects with a total commitment of over \$880 million since the injection in 2008. In the light of continuous inflow of applications, further capital injection is required for ECF to continue to provide funding support to worthwhile projects that can address emerging policy priorities and needs of the community.

31. The Administration's proposal to inject an one-off sum of \$500 million into ECF in 2011-2012 was discussed at the Panel meeting in March 2011. As ECF appeared to have provided funding only to green groups and

non-governmental organizations in implementing environmental initiatives, without taking into account the interest of the business sector, some members opined that more funding should be provided to environmental projects which were conducive to the creation of business and employment opportunities. While supporting the setting up of a \$50 million funding scheme under ECF to facilitate housing estates to collect and recycle source separated food waste, members stressed the need to develop a market for the surplus compost generated from treatment of food waste. The Administration was also urged to take into account Members' views expressed at the motion debate on review of the policy on nature conservation at the Council meeting on 8 December 2010, for establishing a mechanism to compensate owners of private land lots whose development rights had been frozen due to nature conservation.

Environmental impact assessment mechanism

32. The Environmental Impact Assessment Ordinance (Cap. 499) (EIAO), which came into operation on 1 April 1998, provides a statutory framework for assessing the impact of designated projects on the environment. The "Technical Memorandum on Environmental Impact Assessment Process" (EIA-TM) issued under section 16 of EIAO sets out the principles, procedures, guidelines, requirements and criteria for handling various matters (including the technical content of an environmental impact assessment (EIA) study brief/EIA report), deciding whether a designated project is environmentally acceptable, deciding whether an EIA report meets the requirements of the EIA study, issuance of environmental permits, and imposition of environmental monitoring and audit requirements in environmental permits for designated projects, etc. To ensure that the EIA process will be completed within a reasonable time frame, there are statutory time limits for the Environmental Protection Department (EPD) to respond to various applications. In addition, EIAO has clear procedures for receiving comments from the public and the Advisory Council on the Environment (ACE). When considering whether to approve an EIA report, EPD will consider whether relevant issues raised by the public and ACE have been addressed. All the EIA Study Briefs, EIA Reports, and Environmental Permits are available in the EIAO website for public access.

33. Given that the existing EIA mechanism has been in operation for more than 10 years, there are increasing calls for review of the mechanism. The subject has been included in the list of outstanding items for discussion by the Panel, but discussion has been withheld due to a pending judicial review on the air quality assessment of Hong Kong section of Hong Kong-Zhuhai-Macao Bridge project. On 18 April 2011, the Court of First Instance handed down a judgment which rejected six of the seven issues contended by the applicant. However, after considering the purpose of EIAO, the Court ruled that apart from assessing the cumulative environmental impacts caused by the designated

projects, the EIA report should include a "stand alone" analysis of the project and put forward relevant mitigation measures, so as to allow the authority to consider whether the relevant impacts have been kept to the minimum. While acknowledging that the Administration has decided to lodge an appeal against the judgment, the Panel considers it inappropriate to further delay discussion on the review of the EIA mechanism. Besides, there is no question of subjudice so long as the discussion will not touch on the judicial review case.

34. The review of the EIA mechanism was discussed at the Panel meeting in May 2011. Some members were concerned about the conflicting roles of EPD as both the administrator and umpire in the EIA process. The Administration was requested to consider appointing an independent panel to execute the EIA process. It should also assess the anticipated delay of development projects if all the requirements as set out in the judgment were complied with. To gauge public views on the existing EIA mechanism, members agreed that deputations, including green groups, professional bodies as well as stakeholders, should be invited to express their views.

35. From October 2010 to June 2011, the Panel held a total of 13 meetings.

Legislative Council

Panel on Environmental Affairs

Terms of Reference

1. To monitor and examine Government policies and issues of public concern relating to environmental matters (including those on energy), conservation and sustainable development.
2. To provide a forum for the exchange and dissemination of views on the above policy matters.
3. To receive briefings and to formulate views on any major legislative or financial proposals in respect of the above policy areas prior to their formal introduction to the Council or Finance Committee.
4. To monitor and examine, to the extent it considers necessary, the above policy matters referred to it by a member of the Panel or by the House Committee.
5. To make reports to the Council or to the House Committee as required by the Rules of Procedure.

**Legislative Council
Panel on Environmental Affairs**

Membership list for 2010-2011 session

Chairman Hon CHAN Hak-kan

Deputy Chairman Hon Audrey EU Yuet-mee, SC, JP

Members
Hon James TO Kun-sun
Hon WONG Yung-kan, SBS, JP
Hon Miriam LAU Kin-yea, GBS, JP
Hon Andrew CHENG Kar-foo
Hon LEE Wing-tat
Hon Jeffrey LAM Kin-fung, GBS, JP
Hon CHEUNG Hok-ming, GBS, JP
Prof Hon Patrick LAU Sau-shing, SBS, JP
Hon KAM Nai-wai, MH
Hon Cyd HO Sau-lan
Hon CHAN Kin-por, JP
Hon IP Wai-ming, MH
Hon Tanya CHAN
Hon Albert CHAN Wai-yip

(Total : 16 Members)

Clerk Miss Becky YU

Legal Adviser Miss Kitty CHENG

Date 1 July 2011