For discussion on 24 October 2008

Legislative Council Panel on Environmental Affairs

2008-09 Policy Address and Policy Agenda Policy Initiatives of the Environment Bureau

Introduction

- 1.1 The 2008-09 Policy Address and Policy Agenda sets out the Government's new and on-going initiatives. This note elaborates on the initiatives in the 2008-09 Policy Address and Policy Agenda concerning the portfolio of the Environment Bureau. It also provides an update on the progress made thus far in implementing the initiatives in the 2007-08 Policy Agenda (please refer to **Annex**).
- 1.2 Pollution respects no boundary and regional collaboration is essential to tackle environmental protection issues. We will further promote cross-boundary collaboration with the Guangdong Provincial Government to transform the Pearl River Delta (PRD) Region into a green and quality living area. On the home front, we will spare no efforts to promote better air quality. We will tighten our Air Quality Objectives (AQOs) in stages with reference to the latest guidelines issued by the World Health Organization (WHO) and will consult the public on a host of initiatives to achieve these tightened AQOs.
- 1.3 At the same time, we will make early preparations to meet the challenge of climate change and facilitate our migration to a low carbon economy. To this end, we have signed the Memorandum of Understanding (MoU) on energy co-operation with the National Energy Administration in August 2008. Under the MoU, continuous supply of nuclear power and natural gas will be provided to Hong Kong in the next two decades. The continuous supply of cleaner fuel will help reduce emission from power generation and improve air quality. In addition, we will undertake measures to enhance the energy efficiency of our society. Details of individual initiatives of the Environment Bureau as set out in the 2008-09 Policy Address and Policy Agenda are provided in the ensuing paragraphs.

New Initiatives

Developing PRD Region into Green and Quality Living Area

2.1 <u>Initiative</u>

To work with the Guangdong authorities to formulate a strategy to transform the PRD Region into a green and quality living area.

At the 11th Joint Hong Kong - Guangdong Cooperation Conference held in August 2008, both sides agreed to map out a strategy to transform the PRD Region into a green quality living sphere. Building on the consensus reached with the Guangdong authorities in 2002 to reduce the emissions of key air pollutants by 2010, this initiative seeks to develop a more all-rounded strategy to address the environmental issues facing the PRD Region. Apart from looking into the post-2010 arrangements for tackling the regional air pollution problems, the initiative will examine options to broaden and deepen the collaboration between Hong Kong and Guangdong in respect of water resources management, wider use of cleaner fuels and renewable energy, development of circular economy, cleaner production, nature conservation and raising the general public's environmental awareness.

Both sides will work together and, if necessary, undertake further studies to draw up details of the cooperation areas.

Low Carbon Economy

2.2 <u>Initiative</u>

To reserve \$150 million and \$300 million under the Environment and Conservation Fund (ECF) to subsidise building owners in carrying out energy-cum-carbon audits, and energy efficiency projects respectively.

A descriptive account of the initiative

The Government proposes to reserve \$150 million under ECF to provide funding support to eligible applicants to conduct energy-cum-carbon audits, with a view to quantifying the greenhouse gas (GHG) emissions and the use of energy associated with buildings, thereby identifying possible means to reduce emission and conserve energy. Moreover, in view of the considerable costs involved in energy efficiency improvement projects in buildings, the Government proposes to reserve \$300 million under ECF to provide funding support to eligible applicants to conduct such projects. We will consult the ECF Committee on the detailed arrangements of the two funding schemes.

2.3 Initiative

To engage the business sector to conduct carbon audit for over 100 buildings in the coming year.

A descriptive account of the initiative

Based on internationally recognized approaches, the Government launched in July 2008 a set of guidelines for conducting carbon audits on buildings in Hong Kong. The guidelines will facilitate users and managers of buildings to carry out carbon audits on their buildings, i.e., calculate the amount of GHG emitted as a result of the operation of their buildings, and to explore room for improvement and develop emission reduction measures. We would continue

to work with different sectors of the community to encourage them to conduct carbon audits on their buildings and initiate carbon reduction programmes. Our target is to engage the private sector to conduct carbon audit for some 100 buildings in the coming year.

2.4 Initiative

To promote environmental protection and energy conservation in government buildings to further encourage energy conservation, including setting targets in various environmental aspects for new government buildings.

A descriptive account of the initiative

The Government will adopt a comprehensive target-based environmental performance framework for government buildings with a view to promoting green buildings in Hong Kong. Targets on various aspects of environmental performance will be set to promote the environmental performance of government buildings.

2.5 Initiative

To demonstrate state-of-the-art energy efficient designs and technologies by means of a government building and an educational building under planning as energy efficiency demonstration projects.

A descriptive account of the initiative

The Government is committed to promoting environment performance and energy efficiency of buildings. To this end, the Government has identified a planned new school project near Choi Wan Road and Jordan Valley, and the planned Kai Tak Government Offices as demonstration projects, for demonstrating state-of-the-art energy efficient designs and technologies.

2.6 Initiative

To implement a district cooling system (DCS) to meet the demand of air-conditioning for public and private non-domestic developments at Kai Tak Development.

A descriptive account of the initiative

As the Kai Tak Development will generate substantial new demand for air-conditioning, we plan to implement DCS, which is a central water-cooling system for providing more energy-efficient air-conditioning services for public and private non-domestic developments in the region. The implementation of DCS, which is 35% and 20% more energy-efficient than air-cooled and water-cooled air-conditioning systems respectively, will achieve an annual saving in electricity consumption by 85 million kWh and a reduction of 59,500 tonnes of carbon emission.

2.7 <u>Initiative</u>

To extend the existing Hong Kong Awards for Environmental Excellence (HKAEE) to recognise carbon reduction efforts.

A descriptive account of the initiative

Jointly organized by the Government, major business and industrial associations in Hong Kong, the Environmental Campaign Committee and Advisory Council on the Environment, the HKAEE scheme aims to encourage businesses and organizations to adopt green management, and provide commendation to organizations which excel in their environmental performance.

The goal of combating climate change could be achieved only through the concerted efforts of the Government and different sectors of the community. To encourage voluntary and exemplary efforts by the community in combating climate change, we will extend the scope of HKAEE to give due recognition to carbon reduction efforts.

2.8 <u>Initiative</u>

To commence a study on phasing out incandescent light bulbs and replacing them with more energy-efficient lighting products and whether to introduce a statutory restriction on the sale of incandescent light bulbs.

A descriptive account of the initiative

Lighting accounts for about 17% of total electricity consumption in Hong Kong. We have been encouraging the use of more energy-efficient lighting such as compact fluorescent lamps. To further promote energy efficiency and conservation, the Government will conduct a study on phasing out incandescent light bulbs and replacing them with more energy-efficient lighting products, as well as whether to introduce a statutory restriction on the sale of incandescent light bulbs.

2.9 Initiative

To study the issue of energy wastage of external lighting, and assess the feasibility of regulating external lighting by legislation.

A descriptive account of the initiative

The issue of energy wastage of external lighting has drawn considerable concerns in recent years. The Government will conduct a consultancy study on the relevant issue, and to draw international experience to assess the feasibility of regulating external lighting by legislation.

Cleaner Air

2.10 Initiative

To review Hong Kong's AQOs.

A descriptive account of the initiative

This is on-going initiative launched in 2007-08 Policy Address and Policy Agenda.

The Government commissioned an 18-month study in June 2007 to fully review Hong Kong's AQOs and develop a long-term strategy on air quality management, with reference to WHO's AQGs, the latest findings of research undertaken by the European Union (EU) and the United States, and the local social, economic and technological developments. Based on the initial findings of the review, we are considering adopting Interim Target 1 of WHO's AQGs as Hong Kong's new AQOs.

We will launch an extensive public consultation and engagement process to seek public's views on the findings and recommendations, so as to finalize the new AQOs as well as the required measures and long-term strategy on air quality management in 2009.

2.11 Initiative

To study to control the emissions of off-road mobile sources operating within the airport and container terminals.

A descriptive account of the initiative

Off-road mobile sources include off-road vehicles and mobile machinery operating within the airport, container terminals and construction sites. Unlike on-road vehicles, at present they are not required to meet any emission standard when imported for use in Hong Kong. To further reduce air pollution, we will examine the option of controlling the emissions of off-road mobile sources within the airport and container terminals, with an aim to draw up a control scheme for consulting the stakeholders. In the next phase, we will aim to extend the control scheme to mobile emission sources within construction sites.

2.12 Initiative

To study the technical feasibility of local ferries using ultra-low sulphur diesel (ULSD).

A descriptive account of the initiative

If local ferries switch from using marine diesel (which has a maximum sulphur limit of 5,000 ppm) to ULSD (which has a maximum sulphur limit of 50 ppm), their sulphur dioxide (SO₂) and particulate emissions will be reduced by 99%

and 10% respectively. Coupled with proper engine maintenance, their dark smoke emissions will also be reduced, thereby enhancing the green image of Hong Kong.

An Inter-departmental Working Group has been set up to conduct a trial on the technical feasibility and possible implications on operating cost if local ferries switch to using ULSD. Subject to the findings, we would consider how best local ferry operators should be encouraged to switch to using ULSD.

2.13 Initiative

To accelerate the phasing out of hydrochlorofluorocarbons (HCFC) to meet the new phasing out schedule agreed by the Montreal Protocol in September 2007.

A descriptive account of the initiative

At the 19th Meeting of Parties to the Montreal Protocol held in September 2007, the parties reached an agreement on an amendment to accelerate the phasing out of HCFC. According to the amended phasing out schedule, we need to curtail the consumption of HCFC by 75% of the baseline level of 1989 by 2010, and then completely phase out HCFC by 2020.

HCFC is used as refrigerant in Hong Kong. To fully comply with the amended phasing out schedule, there is a need to reduce the demand of HCFC by banning the import of equipments using HCFC as refrigerant. Considering that ozone-layer friendly alternatives are already available in the market, we propose to amend the legislation in 2009, with an aim to gradually phase out equipments containing HCFC from January 2010.

2.14 Initiative

To extend the control of the Air Pollution Control (Volatile Organic Compounds) Regulation to limit the contents of volatile organic compounds (VOC) in adhesives, sealants, vehicle refinishing paints and marine vessel paints.

A descriptive account of the initiative

We have been implementing the Air Pollution Control (Volatile Organic Compounds) Regulation, which imposes limits on the VOC content of architectural paints, printing inks and selected consumer products, in phases since April 2007. To further reduce VOC emissions, we plan to extend the control of the regulation to other products with high VOC contents, including adhesives, sealants, vehicle refinishing paints and marine vessel paints. We have consulted the stakeholders about the proposal in May 2008. Initial feedback indicates that the proposal is generally practicable. We are now finalizing the proposal, with an aim to start the necessary legislative procedures in early 2009 and implement the new control in phases from 2010.

Managing Municipal Solid Waste

2.15 Initiative

To devise a Producer Responsibility Scheme (PRS) for used electrical and electronic equipment to enhance their recovery and recycling, with a view to consulting the public on possible mandatory options.

A descriptive account of the initiative

Following the enactment of the Product Eco-responsibility Ordinance in July 2008, we will continue to extend PRS to cover other products. About 70,000 tonnes of used electrical and electronic equipment were discarded in 2007. While most of the equipment was recovered for reuse, some were disposed of at landfills, which might contain harmful materials to the environment. They should be separately collected for recycling and treatment to minimize their adverse impact on the environment and to conserve resources.

In view of the increasing public concern on the environmental impact of e-waste, we will examine the feasibility of introducing a statutory PRS on waste electrical and electronic equipment. Drawing reference to overseas practices and experience, we will develop feasible options for public consultation in 2009. Meanwhile, we will continue to encourage and pursue voluntary PRS with the trade.

Preserving Our Nature

2.16 Initiative

To consider establishing geological park in Hong Kong, so as to preserve Hong Kong's unique and valuable geological resources.

A descriptive account of the initiative

Other than a wide range of natural habitats to support a rich biodiversity, Hong Kong also having remarkably rich geological resources, which possess scientific, tourism and aesthetics significance. For example, the acidic volcanic rocks in Sai Kung in the form of large hexagonal columns are unique and globally distinctive.

To preserve the diversified geological resources, we are considering the establishment of geological park using the existing framework of the Country Parks and Marine Parks Ordinances. We will raise the public's understanding and awareness of geoconservation through promotion, publicity and education. We will also encourage the public and tourists to visit these unique geological features in Hong Kong.

2.17 Initiative

To ban commercial fishing in marine parks. The ban will improve ecosystems in marine parks and offer better protection for marine organisms.

In Hong Kong, there are at present four marine parks established in Hoi Ha, Yan Chau Tong, Tung Ping Chau, Lung Kwu Chau and Sha Chau, covering a total area of 2,500 hectares. Fishing in marine parks is only allowed for holders of fishing permits issued by the authority. To enhance protection of important marine ecology, we will propose legislative amendment to ban commercial fishing in marine parks.

Tackling Oil Prices

2.18 Initiative

To protect consumers' interest by promoting transparency and timely adjustment in oil prices in accordance with international trends.

A descriptive account of the initiative

International oil prices have been extremely volatile this year. In response to public concerns that fuel prices are "quick going up, slow coming down", the Government has been closely monitoring the adjustments of local pump prices. We have asked the oil companies to promptly adjust prices in tandem with international oil price movement, and be more transparent in price setting so that public can monitor their retail prices. We are now discussing specific measures with the oil companies. We will also continue to monitor the oil price adjustments. If it is found that fuel prices are indeed "quick going up, slow coming down", the Government will consider further measures to protect the public interest.

On-going Initiatives

2.19 Initiative

Making preparation for the legislation for the mandatory compliance with the Building Energy Codes to improve energy efficiency and conservation in new and existing buildings.

A descriptive account of the initiative

The Government completed in March 2008 a three-month public consultation on the proposed mandatory implementation of the Building Energy Codes. The vast majority of the views received supported the proposed mandatory implementation of the codes and the inclusion of existing buildings in the mandatory scheme. We are now preparing the legislative proposal with due regard to the comments received. We aim to introduce the legislative proposal into the Legislative Council in 2009.

2.20 Initiative

Implementing the first phase of the Mandatory Energy Efficiency Labelling

Scheme, and making preparation for the amendments to the Energy Efficiency (Labelling of Products) Ordinance for the second phase of the scheme.

A descriptive account of the initiative

The Energy Efficiency (Labelling of Products) Ordinance was passed by the Legislative Council in April 2008 to implement the Mandatory Energy Efficiency Labelling Scheme. The first phase of the scheme covers three types of products, including room air conditioners, refrigerating appliances and compact fluorescent lamps. To further facilitate the public in choosing energy-efficient products, the Government will make preparation for the amendments to the Energy Efficiency (Labelling of Products) Ordinance for the second phase of the scheme.

2.21 <u>Initiative</u>

Continuing to monitor the progress of the two power companies in developing commercial-scale wind energy projects.

A descriptive account of the initiative

The two power companies are conducting studies on commercial-scale wind energy projects, and have commenced the environmental impact assessment for building off-shore wind farms. The Government will continue to monitor the relevant progress.

2.22 Initiative

Tightening progressively the caps on the total emissions of power companies according to the Air Pollution Control Ordinance, and requiring them to maximize the use of natural gas in power generation.

A descriptive account of the initiative

The Government has imposed emission caps on all power plants during renewal of their specified process licences since 2005. We are now tightening the emission caps progressively to ensure the achievement of the 2010 emission reduction targets. To ensure a smooth, timely and transparent implementation of the emission caps for the power sector for 2010 and beyond, we enacted the Air Pollution Control (Amendment) Ordinance 2008 in July this year to stipulate such caps in the law. This legislation will also allow power plants to use emission trading as an alternative means for achieving the emission caps.

We have been requiring the power sector to maximize the use of natural gas in power generation so as to reduce emissions. With the operation of the Hong Kong Electric's first combined cycle gas turbine from mid-2006 and the signing of MoU on energy co-operation with the National Energy Administration in August 2008, we expect that the two power companies will be able to acquire more natural gas for power generation.

2.23 <u>Initiative</u>

Continuing with the implementation of the Regional Air Quality Management Plan together with the Guangdong Provincial Government to reduce the emission of four major air pollutants in PRD with a view to achieving the joint emission reduction targets.

A descriptive account of the initiative

We reached a consensus with the Guangdong Provincial Government in April 2002 to reduce by 2010, on a best endeavour basis, the regional emissions of SO2, nitrogen oxides (NOx), respirable suspended particulates (RSP) and VOC by 40%, 20%, 55% and 55% respectively, using 1997 as the base year. Both Hong Kong and Guangdong are committed to meeting the emission reduction targets. Specifically, both sides have drawn up the PRD Regional Air Quality Management Plan setting out a string of emission reduction measures, including retrofitting existing power plants with desulphurization facilities, upgrading of vehicle emission standards on both sides, reducing emissions from industrial processes, and supplying motor fuel of lower sulphur content.

At the Eleventh Plenary Session of the Hong Kong/Guangdong Co-operation Joint Conference held in August 2008, both sides reaffirmed their determination and commitment to achieve the jointly agreed emissions reduction targets by 2010, and to carry out enhanced measures recommended in the Mid-term Review Report of the Management Plan released in January 2008.

2.24 Initiative

Continuing to implement the five-year "Cleaner Production Partnership Programme" launched in April 2008 to provide professional and technical support by Hong Kong Productivity Council to Hong Kong-owned factories in the PRD Region to adopt cleaner production technologies and practices in order to reduce emissions and enhance energy efficiency, and thereby further improve regional air quality.

A descriptive account of the initiative

The Cleaner Production Partnership Programme was launched in April 2008. We have set up a Project Management Committee comprising representatives from the main industrial organizations, Hong Kong Productivity Council and the Government to provide steer to the operation of the Programme. Actions are in hand to provide the necessary technical and professional support to assist Hong Kong-owned factories in the PRD Region to adopt cleaner production technologies and practices.

2.25 Initiative

Continuing to tighten vehicle emission and fuel standards in tandem with EU.

To improve roadside air quality, it is the Government's established policy to adopt the most stringent vehicle emission and fuel standards when they become practicable for Hong Kong. The prevailing statutory requirements regarding emissions of newly registered vehicles and vehicle fuels are the Euro IV standards, which are the same as EU's. To advance the availability of Euro V diesel and promote its use, we introduced a preferential fuel duty for this type of diesel in December 2007. We have further waived the duty for Euro V diesel entirely since July 2008. Euro V diesel is now being offered exclusively for diesel vehicles at petrol filling stations.

EU will tighten its vehicle fuel standards to the Euro V level from January 2009. It will also tighten its emission standards for newly registered heavy duty vehicles and light duty vehicles to the same level from October 2009 and January 2011 respectively. We are now consulting the stakeholders on the proposal to tighten our statutory requirements accordingly.

2.26 Initiative

Developing a proposal for stakeholder consultation with a view to strengthening the control of emissions from petrol and Liquefied Petroleum Gas (LPG) vehicles, including the use of roadside remote sensing equipment and dynamometers for emission testing.

A descriptive account of the initiative

Petrol and LPG vehicles emit hydrocarbons and NOx, which contribute to the regional smog problem. If these vehicles are not properly maintained, their emission levels could increase by up to ten times.

To strengthen the control of emissions from petrol and LPG vehicles, the Government proposes to use roadside remote sensing equipment to identify on-road vehicles with excessive emissions that are in need of repair, and dynamometers to more effectively ascertain whether the emission problems have been fixed. We are now formulating details of the proposal, with a view to consulting the stakeholders later this year.

2.27 <u>Initiative</u>

Formulating a regulatory framework for implementing a statutory ban on idling engines in the light of the views received during the public consultation, with a view to introducing the new legislation to the Legislative Council in 2009.

A descriptive account of the initiative

Switching off vehicle engines while waiting will help to reduce pollutants, heat and noise generated, as well as nuisance caused to pedestrians and shops nearby. It will also reduce emissions of carbon dioxide, which is a type of GHG.

The Government completed a five-month public consultation on our proposal to ban idling vehicles with running engines in end-March 2008. In general, the majority of the respondents showed support for the proposed ban, whereas the transport trades have raised concerns on the impacts on their operations. We are now carefully considering all the comments received, with a view to formulating a regulatory framework which will be widely-supported by the public and can also address the genuine operational needs of the transport trades. We aim at consulting the transport trades and the Panel on Environmental Affairs again and finalizing the proposal by the end of this year, and introducing the new legislation to the Legislative Council for its scrutiny in 2009.

2.28 <u>Initiative</u>

Providing incentives to encourage owners of pre-Euro and Euro I diesel commercial vehicles to replace their old vehicles with those complying with the prevalent emission requirements for newly registered vehicles, including extension of the deadline for owners of pre-Euro diesel commercial vehicles to apply for the one-off grant from 30 September 2008 to 31 March 2010 (which is the same as that for Euro I diesel commercial vehicles), and considering the option of increasing the licence fees for old commercial vehicles so as to accelerate their retirement.

A descriptive account of the initiative

Diesel commercial vehicles, which account for about 90% of RSP and 80% of NOx emitted by all vehicles, are the key contributors to roadside air pollution. Among these vehicles, pre-Euro and Euro I models emit about 15 to 30 times more pollutants than Euro IV models.

To improve roadside air pollution, the Government launched a \$3.2 billion one-off grant scheme in April 2007 to encourage owners to replace their pre-Euro and Euro I diesel commercial vehicles with new ones as soon as possible. As at end-July 2008, the numbers of pre-Euro and Euro I diesel commercial vehicles had reduced by about 8,700 vehicles and 3,600 vehicles respectively. Among them, about 5,200 pre-Euro ones and 2,100 Euro I ones had been replaced under the scheme, making up a total grant payment of about \$299 million.

However, there are still some 30,000 pre-Euro diesel commercial vehicles and 17,000 Euro I diesel commercial vehicles in operation, accounting for about 25% and 15% of the diesel commercial vehicle fleet respectively. To further accelerate their replacement, we have extended the application period of the one-off grant scheme for pre-Euro diesel commercial vehicles from 30 September 2008 to 31 March 2010 (i.e. same as the one for Euro I diesel commercial vehicles). We will also consult the transport trades on a proposal to increase the licence fees for old commercial vehicles upon the expiry of the extended deadline, so as to provide an added impetus to vehicle owners to replace their old vehicles with cleaner ones.

2.29 <u>Initiative</u>

Encouraging the use of environment-friendly private petrol cars and commercial vehicles by reduction in first registration tax.

A descriptive account of the initiative

The Government launched an incentive scheme in April 2007 to promote the use of environment-friendly private petrol cars by reducing their first registration tax by 30%, subject to a cap at \$50,000 per vehicle. As at end-August 2008, we have received and approved about 5,600 applications. Since the introduction of the scheme, environment-friendly private petrol cars accounted for about 11% of all newly registered private cars.

To step up our efforts, we launched another incentive scheme in April 2008 to promote the use of environment-friendly commercial vehicles (whose qualifying standards are set at the Euro V level) by reducing their first registration tax from 30% to 100%, depending on the vehicle class concerned. As at end-August 2008, we have received and approved about 120 applications.

We will review and tighten the qualifying standards for vehicles under both incentive schemes on a regular basis, so as to ensure that these vehicles are of truly outstanding emission and fuel efficiency performances.

2.30 Initiative

Making Euro V diesel, a more environment-friendly fuel with 80% less sulphur content than ULSD, the statutory standard in 2009.

A descriptive account of the initiative

Please refer to paragraph 2.25 above.

2.31 <u>Initiative</u>

Promoting the use of biodiesel by committing to a duty-free policy and developing specifications on its use as motor vehicle fuel.

A descriptive account of the initiative

To support the global effort in tackling climate change and realize the Government's commitment to reduce GHG emissions, we are committed to a duty-free policy for biodiesel to encourage drivers to use it as vehicle fuel.

To promote the development of the biodiesel market, we are developing specifications for biodiesel on its use as vehicle fuel with reference to the EU standards. This will ensure the quality of the fuel, thereby strengthening users' confidence and helping to control its impact on the environment. Our plan is to implement the specifications from 2009.

2.32 <u>Initiative</u>

Implementing the Air Pollution Control (Fuel Restriction) (Amendment) Regulation 2008 from 1 October 2008 to mandate all industrial and commercial processes to use ULSD.

A descriptive account of the initiative

The use of industrial diesel, which has a sulphur content of 0.5%, in industrial and commercial processes is the second major source of SO₂ emissions in Hong Kong. To further improve air quality, we need to reduce SO₂ emissions by mandating all industrial and commercial processes to switch to using ULSD, which has a much lower sulphur content of 0.005%. To this end, we have enacted the Air Pollution Control (Fuel Restriction) (Amendment) Regulation 2008, and the new requirement has come into operation since 1 October this year.

2.33 Initiative

Complete the comprehensive study to review Hong Kong's AQOs and develop a long-term strategy on air quality management, followed by extensive public consultation and engagement. Based on the initial findings of the review, we will consider adopting Interim Target 1 of AQGs released by WHO as Hong Kong's new AQOs.

A descriptive account of the initiative

Please refer to paragraph 2.10 above.

2.34 Initiative

Undertaking a comprehensive consultancy study on climate change to assess its impact on Hong Kong and recommend suitable strategies to enhance further our existing adaptation and mitigation measures.

A descriptive account of the initiative

To further enhance our efforts in reducing GHG emissions and to adapt to climate change, we commenced a study on climate change in March 2008. The study, which is expected to complete towards end 2009, seeks to review and update the local inventories of GHG emissions and removals; project the future trends in GHG emissions under different scenarios; characterize the impacts of climate change in Hong Kong; and make recommendations to the Government for formulating long-term measures for Hong Kong to mitigate GHG emissions and adapt to climate change.

2.35 Initiative

Continuing to implement the initiatives in "A Policy Framework for the Management of Municipal Solid Waste in Hong Kong (2005-2014)" by –

- (a) extending the territory-wide source separation of waste programme to promote waste recovery both at home and at work;
- (b) implementing the amended Building (Refuse Storage and Material Recovery Chambers and Refuse Chutes) Regulations requiring the provision of a refuse storage and recovery room on each floor of new residential buildings;
- (c) monitoring the operation of Phase 1 of EcoPark;
- (d) conducting baseline survey and planning for consultation on options for municipal solid waste (MSW) charging;
- (e) implementing the landfill extension schemes upon completion of feasibility and environmental impact assessment (EIA) studies; and
- (f) carrying out of feasibility and EIA studies for the Integrated Waste Management Facilities (IWMF).

The Policy Framework sets out a comprehensive waste management strategy for the next ten years, with initiatives aiming to reduce MSW generation at source, to promote recovery and recycling of waste and to treat unavoidable waste properly. In particular –

- (a) we will continue to roll out the Source Separation of Waste Programme to encourage and assist property management companies or owner associations to set up waste separation facilities at locations close to households in residential buildings and tenants in commercial and industrial buildings. This facilitates the public to participate in waste recovery both at home and at work. As at early September 2008, 954 housing estates/residential buildings have signed up to join the programme, covering 1,168,000 households and 3.5 million people. Following the encouraging results in the domestic sector, we launched the Source Separation Programme for Commercial and Industrial Waste in October 2007. By September 2008, some 400 commercial and industrial buildings have signed up to this programme;
- (b) we will implement the amended Building (Refuse Storage and Material Recovery Chambers and Refuse Chutes) Regulations passed by the Legislative Council. Commencing from 1 December 2008, all new domestic buildings and the domestic part of new composite buildings will be required to provide a refuse storage and material recovery room on every building floor to facilitate residents' participation in waste recovery;
- (c) four of the six lots in Phase I of the EcoPark have been allocated for recycling of waste wood, used cooking oil, computer equipment and waste plastics and we are supporting the tenants in setting up their operations at the EcoPark. The remaining two lots in Phase I will be

tendered by the end of 2008;

- (d) MSW charging aims to provide the public with direct economic incentive to reduce and recover waste. We will conduct a baseline survey to collect information on waste management pattern and waste generation practices, and plan for consultation on options for MSW charging;
- (e) as for the treatment of unavoidable waste, we have identified two potential sites for developing the first phase of the large scale IWMF which will adopt advanced incineration as the core treatment technology to reduce the volume of waste before final disposal. We will commence the engineering and EIA studies for both of these two potential sites by December 2008. Upon completion of these studies, we will select one of it and proceed with the design and tendering works with a view to commissioning the first phase of IWMF in mid 2010's. We will also develop the Organic Waste Treatment Facilities (OWTF) to treat source separated organic waste such as food waste and turn them into useful resources. We have started the engineering and EIA studies for developing the first phase of OWTF in August 2008, and we plan to commission the facilities before mid 2010's; and
- (f) even with IWMF, we still need landfills as the final repositories for non-recyclable and residual waste. Given that the capacity of the three existing landfills would be exhausted one by one from early to mid 2010s, we need to extend these landfills as a matter of priority. The engineering feasibility and EIA studies for both the North East New Territories Landfill Extension and the South East New Territories Landfill Extension have been substantially completed and those for the West New Territories Landfill Extension are in progress. We shall maintain proactive communication with all stakeholders and the general public in the course of the studies and project implementation.

2.36 <u>Initiative</u>

Implementing an environmental levy on plastic shopping bags, as the first mandatory PRS under the Product Eco-responsibility Ordinance, with a view to reducing their indiscriminate use.

A descriptive account of the initiative

The Product Eco-responsibility Ordinance was enacted by the Legislative Council in July 2008. Pursuant to section 29 of this ordinance, we are preparing the Product Eco-responsibility (Plastic Shopping Bags) Regulation, which would further set out the implementation details of the environmental levy scheme. Subject to the passage of the regulation by the Legislative Council, we envisage that the environmental levy scheme could commence in mid 2009.

2.37 <u>Initiative</u>

Upgrading the Chemical Waste Treatment Centre (CWTC) in 2009-10 to meet the latest air-emission standards of EU.

A descriptive account of the initiative

In order to further improve the environmental performance of CWTC, we plan to upgrade the air pollution control system of CWTC in 2009-10 to tighten the emission limits of many pollutants to meet the latest EU air emission standards which are among the most stringent standards adopted in the world.

2.38 Initiative

Continuing to carry out detailed planning work for the development of sludge treatment facility (STF) to avoid the disposal of large amount of sewage sludge at landfills.

A descriptive account of the initiative

Sewage sludge generated from sewage treatment works is currently dewatered and disposed of at our landfills. This is not sustainable in view of –

- (a) the increasing amount of sludge that will be generated as a result of the Harbour Area Treatment Scheme (HATS) Stage 2A and the expansion/upgrading of some existing sewage treatment works; and
- (b) the dwindling capacity of our landfills. STF will adopt incineration technology to treat the sewage sludge before final disposal.

STF will be developed in two phases, it will have an initial capacity of 1,600 tonnes per day upon completion of phase 1 and a total capacity of 2,000 tonnes per day upon fill commission.

2.39 <u>Initiative</u>

Continuing to deliver inert construction and demolition materials to the Mainland for reclamation purposes. We will liaise with the Mainland authorities to identify more possible sites for their reuse.

A descriptive account of the initiative

The trial delivery of 10 million tones of public fill to Taishan began in July 2007 and is expected to complete in October 2008. The State Oceanic Administration (SOA) has agreed to the continuation of the delivery scheme upon the trial's completion. We will continue to explore with SOA the feasibility of more sites for reusing our public fill.

2.40 Initiative

Advancing the disinfection of the wastewater from Stage 1 of HATS to 2009

while implementing Stage 2 in phases with the aim of completing Stage 2A within 2014. Based on the results of a review in 2010-11, we will decide on the timing for building the biological treatment plant under Stage 2B.

A descriptive account of the initiative

Following completion of HATS Stage 1 at the end of 2001, and based on the public's support through the public consultation conducted in 2004, we are proceeding with the implementation of HATS Stage 2 in phases. The first phase, i.e. Stage 2A is to collect the remaining 25% of harbour area sewage not handled by Stage 1 and transfer it for centralized chemical treatment at the expanded Stonecutters Island Sewage Treatment Works. We aim to complete Stage 2A within 2014. To provide early improvement in the water quality of the Tsuen Wan beaches, we are advancing part of the Stage 2A disinfection facilities for commissioning in 2009. The second phase, i.e. Stage 2B, is to provide biological treatment for all the harbour area sewage to secure long term protection of harbour water quality. The timing for this depends upon trends in population, sewage flow build-up, and water quality, and its implementation timetable will be the subject to the results of a review to be carried out in 2010-11.

2.41 Initiative

Overseeing the implementation of the pilot scheme on management agreement (MA) and Public-Private-Partnership (PPP) promulgated under the New Nature Conservation Policy, with the objective of enhancing conservation of ecologically important habitats on private land.

A descriptive account of the initiative

Pursuant to the announcement of the New Nature Conservation Policy in November 2004, we launched a pilot scheme on two new conservation PPP, to enhance ecological values of the 12 priority conservation sites.

Three pilot MA projects at Fung Yuen and Long Valley were launched in end 2005. Noting that the pilot MA scheme is effective in conserving and enhancing the biodiversity of the ecologically important sites, the ECF Committee agreed to provide funding support for continuation of the MA Scheme. Currently, two MA projects are in operation to conserve Fung Yuen and Long Valley.

Under the PPP Pilot Scheme, we received a total of six applications. In assessing the PPP proposals, due consideration had been given to the net benefits of the proposals in enhancing conservation of the site, possible adverse environmental impacts arising from the proposed developments, the sustainability of the proposals and the long-term commitment of the proponent, etc. In April 2008, the Government consulted the Advisory Council on the Environment and supported the Sha Lo Tung project from the conservation angle.

2.42 <u>Initiative</u>

Continuing the public engagement process for the Sustainable Development Strategy for Hong Kong, with the aim of encouraging greater public awareness of and participation in this process.

A descriptive account of the initiative

The Council for Sustainable Development (the Council) will continue to engage the public to express their views on important sustainable development issues through the stakeholder-led public engagement process. Between June and mid October 2007, the Council conducted an engagement process on Better Air Quality to involve the community in direct dialogues on relevant issues to help formulate the long-term way forward for improving the air quality in Hong Kong. During the engagement process, some 50 seminars, forums and workshops, etc. were organised to canvass the views of stakeholders and over 80,000 responses were received when the engagement process ended. Having regard to the engagement findings, the Council put forward its recommendations to the Government in mid February 2008. The Government has carefully considered the recommendations and provided a detailed response to the Council in mid-October 2008.

2.43 Initiative

Recommending ECF to support projects in the following new areas in order to further promote public awareness on environmental protection and strengthen international and regional collaboration to address environmental challenges –

- (a) support greening projects for schools, community buildings and charitable organizations;
- (b) support energy audits and installation projects for buildings to promote energy conservation. We will invite suitable organizations (namely non-government organizations, professional organizations, universities, etc.) to develop and implement energy conservation projects for selected buildings, elderly homes, etc;
- (c) extend the funding of the source separation of waste programme to commercial buildings. We will also set aside money for the Environmental Campaign Committee for funding the provision of recycling bins to schools and estates to further improve waste recycling in the community;
- (d) we will set aside \$50 million to support projects from the District Councils and community groups to implement district-based projects on greening, energy efficient installation and waste reduction; and
- (e) support projects in conserving and enhancing the biodiversity of ecologically important sites.

Following the injection of \$1 billion into ECF in early 2008, we have sought the views of the ECF Committee and identified the above priority programme areas. Briefing sessions have been held for local non-profit making organizations (e.g. universities, schools, community bodies, non-government organizations and the District Councils) to explain about the enhanced scope of the ECF operation and solicit their interest in making applications of innovative, worthwhile, larger scale and longer term projects in the aforementioned programme areas.

Since the injection, ECF has approved to finance 122 projects and plans with a total commitment of \$111.09 million, as elaborated below –

- (a) ten research projects (\$5.16 million);
- (b) two nature conservation agreement projects (\$6.82 million);
- (c) four public education programmes for the Policy Framework on Management of MSW (\$1.94 million);
- (d) 78 minor works projects (\$24.31 million);
- (e) 15 environmental education and community action projects (\$1.41 million) which include the two energy audit and installation projects for the Central & Western and Tai Po districts;
- (f) one waste recovery project (\$0.47 million);
- (g) setting up of recycling bins in 12 estates to promote source separation of waste on a floor basis, with a total commitment of \$0.38 million;
- (h) approved \$20.6 million for territory-wide environmental education programmes carried out by the Environmental Campaign Committee; and
- (i) set aside \$50 million for a collaboration scheme with the District Councils.

We will review the above programme areas in consultation with the ECF Committee from time to time in the light of the current environmental issues that the community attaches priority to and having regard to the Government's policy initiatives.

Environment Bureau October 2008

Progress Made in Implementing Initiatives in 2007-08 Policy Agenda

Quality City, Quality Life

New Initiatives

3.1 <u>Initiative</u>

Consult the public on the proposal to mandate compliance with Building Energy Codes to improve energy efficiency and conservation in buildings.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.19 above.

3.2 <u>Initiative</u>

Take the Energy Efficiency (Labelling of Products) Bill through the legislative process with a view to rolling out the first phase of the Mandatory Energy Efficiency Labelling Scheme within 2008. Planning for the coverage of its second phase will also start in the year.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.20 above.

3.3 Initiative

Enhance the operation of ECF to promote collaboration with relevant local and international bodies in projects to raise the Hong Kong Special Administrative Region's profile as a leading green city as well as to strengthen international and regional collaboration to address environmental challenges.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.43 above.

3.4 Initiative

Legislate for PRS and, in accordance with the "polluter pays" principle, introduce the first scheme in the form of an environmental levy on plastic shopping bags to address their indiscriminate use.

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.36 above.

3.5 Initiative

Encourage Hong Kong-owned factories in the PRD Region to adopt cleaner production technologies and practices in order to reduce emissions and enhance energy efficiency, and thereby further improve regional air quality, through launching a five year programme on professional and technical support to be implemented by Hong Kong Productivity Council.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.24 above.

3.6 Initiative

Initiate a comprehensive consultancy study on climate change to assess its impact on Hong Kong and recommend suitable strategies to enhance further our existing adaptation and mitigation measures.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.34 above.

3.7 Initiative

Further reduce the duty rate for Euro V diesel to \$0.56 per litre for a period of two years to encourage early supply of this more environment-friendly fuel with 80% less sulphur content than ULSD on the local market. As there is no technical barrier for all existing diesel vehicles to migrate to Euro V diesel, the duty concession would facilitate adopting Euro V standard as the statutory standard for motor vehicle diesel made available in Hong Kong. We would review this measure before making the standard mandatory in 2009, in tandem with EU.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.25 above.

3.8 Initiative

Promote the use of biodiesel by committing to a duty-free policy and develop specifications on its use as motor vehicle fuel.

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.31 above.

3.9 Initiative

Encourage ferry operators to switch to cleaner fuel.

A descriptive account of the initiative

Please refer to paragraph 2.12 above.

3.10 Initiative

Conduct consultation on mandating the use of ULSD in all industrial and commercial processes.

A descriptive account of the initiative

Please refer to paragraph 2.32 above.

On-going Initiatives

3.11 Initiative

Continuing the public engagement process for the Sustainable Development Strategy for Hong Kong, with the aim of encouraging greater public awareness of and participation in this process.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.42 above.

3.12 Initiative

Continuing to discuss with the two power companies the terms of the new Scheme of Control Agreements, including to put in place an effective mechanism to ensure reduced emission and to lower the permitted return of the companies so as to lower electricity tariffs. We will take into account public views received during the two rounds of public consultation on "Future Development of the Electricity Market in Hong Kong" in taking forward our medium term target of market liberalization, including the establishment of a new regulatory framework.

A descriptive account of the initiative

The Government and each of the two power companies signed the new post-2008 Scheme of Control Agreements in January 2008. Under the new agreements, the permitted rate of return of the power companies will be

reduced from 13.5% to 15% on the Average Net Fixed Assets down to 9.99%. It will also be linked to the power companies' achievement of the emission caps to encourage better environmental performance. The Government is currently preparing for the consultancy study on the liberalization of electricity market.

3.13 Initiative

Tightening progressively the caps on the total emissions of power companies and requiring them to maximize the use of natural gas in power generation.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.22 above.

3.14 Initiative

Continuing to monitor the progress of the two power companies in implementing pilot commercial-scale wind energy projects for public demonstration and evaluation purposes and promoting the wider application of renewable energy.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.21 above.

3.15 <u>Initiative</u>

Advancing the disinfection of the wastewater from Stage 1 of HATS to 2009 while continuing to implement Stage 2 in phases with the aim of completing Stage 2A within 2014. Based on the results of a review in 2010-11, we will decide on the timing for building the biological treatment plant under Stage 2B.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.40 above.

3.16 <u>Initiative</u>

Continuing to implement "the Hong Kong Special Administrative Region Implementation Plan" for meeting the obligations under the Stockholm Convention on Persistent Organic Pollutants. We will introduce subsidiary legislation into the Legislative Council with a view to commence operation of the Hazardous Chemicals Control Ordinance in 2008. Recommending to the Central Government the extension of the Rotterdam Convention into the Hong Kong Special Administration Region to further control hazardous chemicals.

In accordance with the Hazardous Chemicals Control Ordinance passed in July 2007, we introduced subsidiary legislation in October 2007 to regulate the import, export, manufacture and use of non-pesticide hazardous chemicals through an activity-based permit system. The subsidiary legislation has come into full effect on 1 July 2008. In addition, the Rotterdam Convention became applicable to the Hong Kong Special Administrative Region with effect from 26 August 2008.

3.17 Initiative

Completing surveys of the effluents of the remaining 26 trades under the Trade Effluent Surcharge scheme by the end of 2007. We aim to make any necessary adjustments to the scheme so as to equitably apply the "polluter pays" principle to the provision of sewage services in early 2008.

A descriptive account of the initiative

The Government completed the trade effluent survey by the end of 2007. A proposal was submitted to the Legislative Council with a view to revising the surcharge rates and generic values of chemical oxygen demand under the Trade Effluent Surcharge scheme. The proposal was supported by the Legislative Council and became effective on 1 August 2008.

3.18 Initiative

Continuing to deliver inert construction and demolition materials to the Mainland for reclamation purposes. We will liaise with the Mainland authorities to identify more possible sites for their reuse.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.39 above.

3.19 Initiative

Continuing with the implementation of the Regional Air Quality Management Plan with the Guangdong Provincial Government to reduce the emission of four major air pollutants in PRD to reach the agreed levels by 2010.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.23 above.

3.20 Initiative

Undertaking a comprehensive study to review Hong Kong's AQOs and develop a long-term strategy on air quality management, followed by

extensive consultation and public engagement.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.33 above.

3.21 Initiative

Overseeing the implementation of the pilot scheme on MA and PPP promulgated under the New Nature Conservation Policy, with the objective of enhancing conservation of ecologically important habitats on private land.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.41 above.

3.22 Initiative

Continuing to tighten vehicle emission and fuel standards in tandem with EU.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.25 above.

3.23 Initiative

Developing a proposal for stakeholder consultation with a view to strengthening the control of emissions from petrol and LPG vehicles including the use of roadside remote sensing equipment and dynamometers for emission testing.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.26 above.

3.24 <u>Initiative</u>

Considering the introduction of a statutory ban on idling engines in the light of the outcomes of public consultation.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.27 above.

3.25 <u>Initiative</u>

Providing incentives to encourage owners of pre-Euro and Euro I diesel commercial vehicles to replace their old vehicles with vehicles compliant with the prevalent emission requirements for newly registered vehicles.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.28 above.

3.26 Initiative

Encouraging the use of environment-friendly private petrol cars by reduction in first registration tax.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.29 above.

3.27 Initiative

Continuing to implement the initiatives in "A Policy Framework for the Management of MSW in Hong Kong (2005-2014)" by extending the territory-wide source separation of waste programme, pursuing the proposed amendment of Building (Refuse Storage and Material Recovery Chambers and Refuse Chutes) Regulations to include a mandatory requirement on the provision of a refuse storage and recovery room on each floor of new residential buildings to facilitate material recovery activities, awarding tenancies for the second batch of EcoPark, planning for consultation on options for MSW charging and carrying out feasibility and EIA studies on landfill extensions.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.35 above.

3.28 <u>Initiative</u>

Upgrading CWTC in 2008-09 to meet the latest air-emission standards of EU.

A descriptive account of the initiative

This is an on-going initiative in the 2008-09 Policy Agenda. Please refer to paragraph 2.37 above.

Environment Bureau October 2008