



環境局  
Environment  
Bureau



環境保護署  
Environmental  
Protection Department

# 2010 環保工作報告 ENVIRONMENTAL PERFORMANCE REPORT



綠在香江 我鍾意  
Love Hong Kong  
| Love GREEN



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## FOREWORD

It is our vision and mission to protect the environment and promote sustainable development for the benefit of the generations of today and the future. We have formulated new policies and launched initiatives over the years to meet these commitments and in 2009 we made meaningful progress on all fronts.

In 2009, we sought the public's views on their aspirations for Hong Kong's air and water quality. We have all along relied on Air Quality Objectives (AQOs) and Water Quality Objectives (WQOs) to delineate the acceptable standards. In recent years there have been new findings in scientific research and developments in technologies, which update our understanding of the health and environmental impacts of pollution. In light of this, we launched a public consultation in 2009 on the recommendations of a consultancy study on proposed new AQOs and air quality management measures. We have also launched a consultancy study on the WQOs, with the aim of reviewing whether and, if necessary, how to update them as well. The outcomes will provide us with clear feedback on the community aspiration on our air and water policies and programmes in the coming years.

A central concept in environmental protection is the "polluter pays" principle. Hong Kong enacted the Product Eco-responsibility Ordinance in 2008 to provide a legal framework for introducing producer responsibility schemes for different products. The first mandatory producer responsibility scheme in the form of a 50-cent environmental levy on plastic shopping bags was introduced in 2009. In 2010 the public will be consulted on a second producer responsibility scheme for waste electrical and electronic equipment.

Energy efficiency and tightening control on emissions from electricity generation also continued to be a top priority. This issue has wider impacts in terms of contributing to regional air pollution and climate change.

One way to combat climate change is to encourage more efficient, less polluting use of energy. The \$450 million Buildings Energy Efficiency Funding Schemes were launched in 2009 to help building owners green their premises. The Buildings Energy Efficiency Bill was also introduced in the Legislative Council, and energy efficiency labelling became mandatory for certain products.

We also join the international community in addressing climate change. The Secretary for the Environment joined the China delegation to the UN Conference on Climate Change in December 2009. We also became a member of the C40 Steering Committee on Electric Vehicles (EVs). The compact size of our city makes it an ideal place to test and promote EV technologies and we started to do so in 2009. Our hope is that this will not only reduce our carbon and roadside emissions, but also serve as an example to other cities in the region.

Hong Kong is an active partner of Guangdong in combating regional pollution. We have many joint initiatives, which in 2009 extended to an enhanced Environmental Co-operation Agreement and the launch of a joint study on the post-2010 arrangements for air pollutant emission reduction in the Pearl River Delta region. This will follow on from our earlier joint plan on regional air quality management covering 2002-10.

Our overarching goal is to provide Hong Kong with a quality living environment that protects resources and encourages responsible behaviour. Our progress towards these objectives in 2009 are detailed in this report. We welcome your thoughts and feedback on our performance, and invite you to share your views through the [feedback form](#).



A handwritten signature in black ink, appearing to read 'Anissa Wong'.

**Anissa WONG, JP**  
**Permanent Secretary for the Environment /**  
**Director of Environmental Protection**





## EXECUTIVE SUMMARY

1. The Environment Bureau (ENB) and Environmental Protection Department (EPD) are committed to improving Hong Kong's environment and promoting sustainable development. We oversee eight programme areas that address matters related to environmental protection, sustainable development and energy generation and use.
2. Policies and programmes are developed in consultation with stakeholders and the community. We also have a close working relationship with authorities in Guangdong to address cross-boundary pollution, and we are committed to upholding our international responsibilities regarding climate change and other issues.
3. Internally, we continually seek opportunities to reduce our impacts on the environment. We also implement the Government's commitment to the Clean Air Charter.
4. Our key achievements in 2009 are described below according to the triple bottom line of sustainable development, which considers environmental, social, and economic aspects.

Environmental	Social	Economic
<ul style="list-style-type: none"> <li>- Energy use by the ENB and EPD fell by 1.8 per cent in 2009, exceeding the target of 1 per cent, and paper consumption fell by 0.4 per cent.</li> <li>- The Buildings Energy Efficiency Bill was introduced to the Legislative Council proposing mandatory minimum energy performance standards for certain types of building installations.</li> <li>- Energy efficiency labelling became mandatory for air-conditioners, refrigerating appliances and compact fluorescent lamps.</li> </ul>	<ul style="list-style-type: none"> <li>- The public was consulted on proposed new Air Quality Objectives (AQOs) and measures for achieving them. The proposals emerged from a review study of AQOs completed earlier in the year.</li> <li>- The Council for Sustainable Development conducted a public engagement exercise on "Building Design to Foster a Quality and Sustainable Built Environment".</li> <li>- A public engagement exercise was held to gather views on a review of Water Quality Objectives.</li> </ul>	<ul style="list-style-type: none"> <li>- A 50-cent environmental levy on plastic shopping bags was introduced, the first mandatory product responsibility scheme to be introduced under the Product Eco-responsibility Ordinance.</li> <li>- The \$450 million Buildings Energy Efficiency Funding Schemes was launched by the Environment and Conservation Fund to encourage building owners to green their premises. A separate programme offers</li> </ul>

<ul style="list-style-type: none"> <li>- The Hong Kong National Geopark was officially opened.</li> <li>- Electric vehicles (EVs) were promoted and tested on Hong Kong's roads, and an extension was granted to the waiver on the first registration tax for EVs. Hong Kong also became a member of the C40 Steering Committee on EVs.</li> <li>- Hong Kong and Guangdong began a joint study on the post-2010 arrangements for air pollutant emission reduction in the Pearl River Delta region.</li> <li>- An Environmental Co-operation Agreement was signed with Guangdong to further enhance co-operation on a wide range of environmental issues.</li> <li>- Advance Disinfection Facilities were commissioned as part of Stage 2A of the Harbour Area Treatment Scheme.</li> </ul>	<ul style="list-style-type: none"> <li>- The Environmental Compliance Promotion Programme was launched to raise awareness and facilitate compliance across a spectrum of trades and industries.</li> </ul>	<ul style="list-style-type: none"> <li>- \$50 million was earmarked to help schools provide on-site portioning of meals and thereby reduce waste.</li> </ul>
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## 1 SCOPE OF THIS REPORT

1. This Report combines input from the Environment Bureau (ENB) and Environmental Protection Department (EPD). It describes our efforts in 2009 to improve Hong Kong's environment and the impacts of our own operations, and to contribute to sustainable development in Hong Kong.
2. The ENB is the chief administrative entity in the Hong Kong SAR Government responsible for environmental and sustainability matters, and the EPD is one of its main branches. Given that the environment is the primary focus of our work, this report places particular emphasis on environmental issues. However, we also give consideration to other sustainability issues as far as possible with reference to the Global Reporting Initiative.
3. Our target readership includes members of the Executive and Legislative Councils, academics, green groups, local and overseas organisations and businesses, members of the general public with an interest in environmental protection and other government bodies.
4. The reporting period covers 1 January 2009 - 31 December 2009, unless otherwise stated. This Report is published in English and Chinese on our website and in CD-ROM format to reduce paper consumption. All monetary figures are in Hong Kong dollars.

### **Feedback on our Environmental Performance Report 2009**

5. Readers are invited to share their views and suggestions on our Environmental Performance Reports through the on-line feedback form. In 2009 we received 15 replies. The majority felt the report's readability was 'good', only one 'poor', and that they understood our environmental performance; the rest rated these areas 'average'. The provision of charts and tables was mostly graded 'average', followed by 'good'. Respondents also asked for more statistical information and illustrations. In response to this feedback, we have endeavoured to provide additional tables and charts to show trends and results.
6. In terms of the content, people were most interested in further information about the impacts of our internal operations and our policies and programmes. The current report, as in past reports, aims to provide a complete and concise account of our activities. The use of hyperlinks also facilitates people to access sources of further information.
7. In terms of environmental issues, the areas of greatest interest, in descending order, were waste reduction in our internal operations, air quality, energy management, internal energy consumption, waste management policies and programmes, water quality policies and programmes, and nature conservation.



## 2 OUR PROFILE

### A. Organisation and Governance

1. The Environment Bureau (ENB) is responsible for Government policy-making and programmes to protect Hong Kong's environment. The Secretary for the Environment reports directly to the Chief Executive and the Executive Council on three main programme areas:
  - *Energy*. Policy is set by the ENB, while energy conservation policy is implemented by the Electrical and Mechanical Services Department.
  - *Sustainable development*.
  - *Environmental protection* encompassing air, environmental assessment and planning, nature conservation, noise, waste and water. The Environmental Protection Department (EPD), which comes under the ENB, develops and implements policies and programmes in all areas except nature conservation, where it sets policies that are implemented by the Agriculture, Fisheries and Conservation Department.
2. Internally, ENB and EPD's sustainability impacts are managed by the Departmental Environment, Safety and Health Committee, a consultative body with representatives from management and staff. An Energy and Emissions Management Team has also been set up to identify ways to reduce energy consumption and meet targets under the Clean Air Charter.

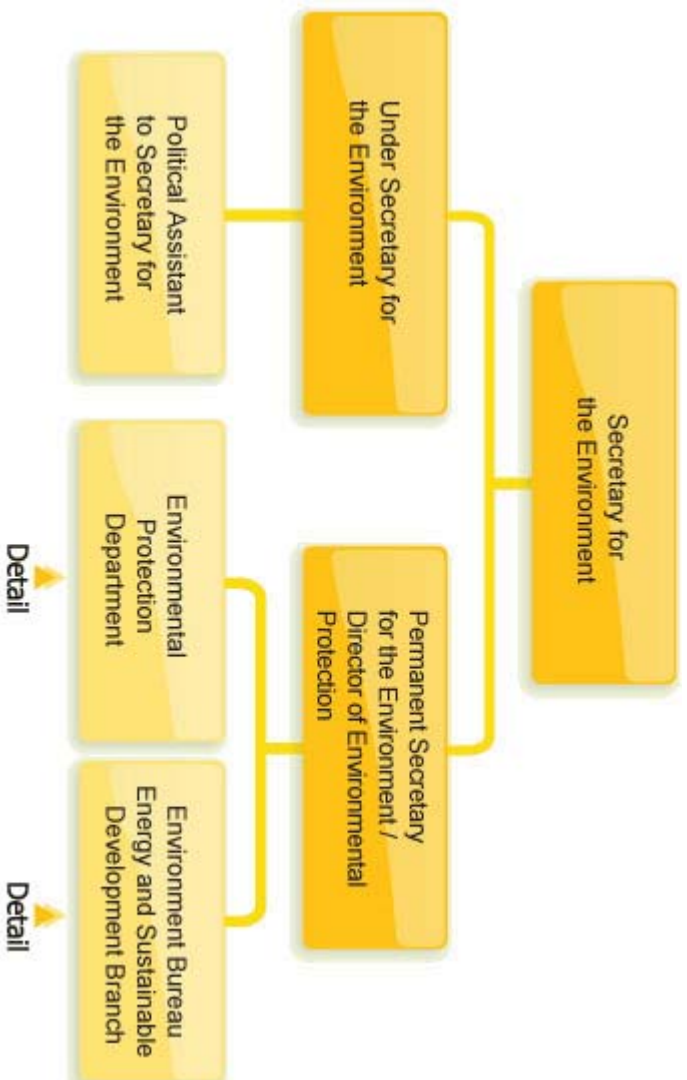
#### *Our Numbers in 2009*

<b>Establishment*</b>	ENB, 38 staff. EPD 1 651 staff. See <u>Our Staff</u> for details.
<b>Expenditure</b>	ENB \$59 million; EPD \$2.28 billion. See <u>Our Economic Impacts</u> for details.
<b>Facilities</b>	ENB, one office. EPD, eight offices, three strategic landfills and more than 20 other facilities (see <u>Appendix II</u> ).
<b>Headquarters</b>	33/F, 34/F, 40/F and 45-48/F Revenue Tower, 5 Gloucester Road, Wan Chai, Hong Kong.
<b>Founding</b>	ENB founded in July 2007. EPD founded in 1986.

\*As at 31 December 2009

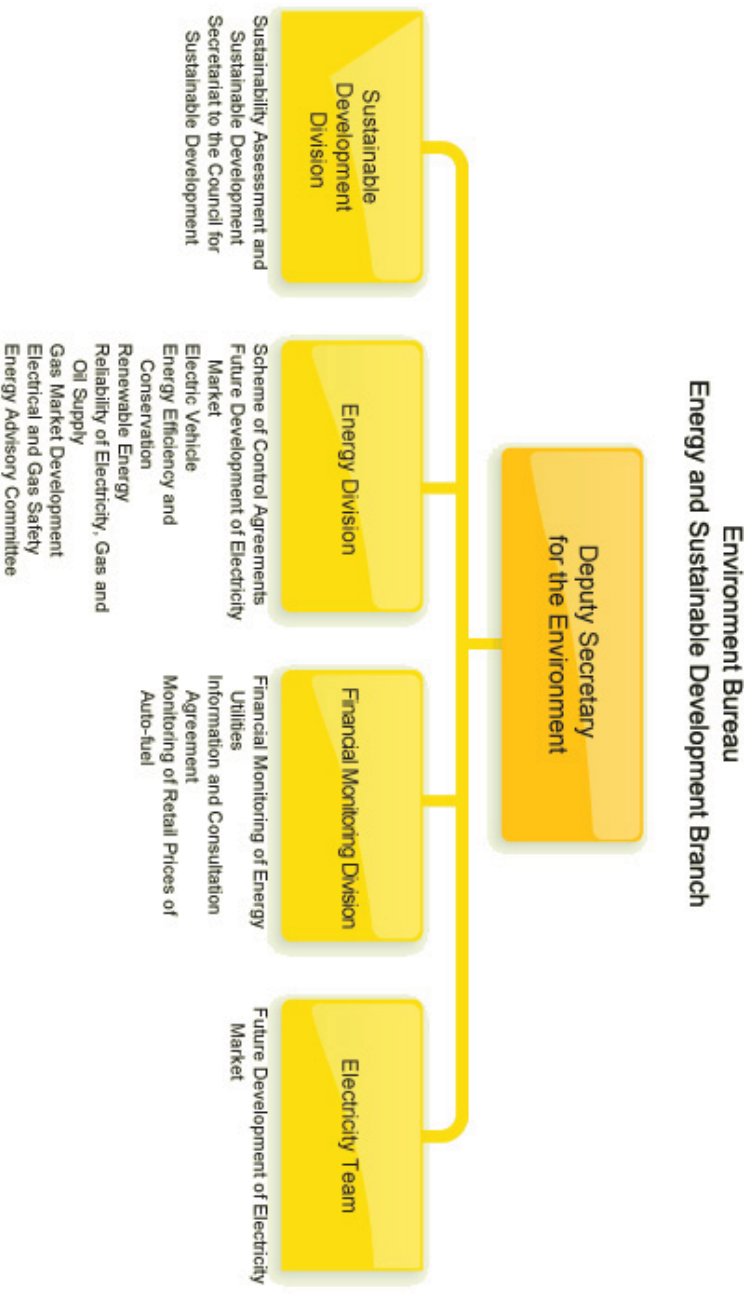


## Organisational Structure



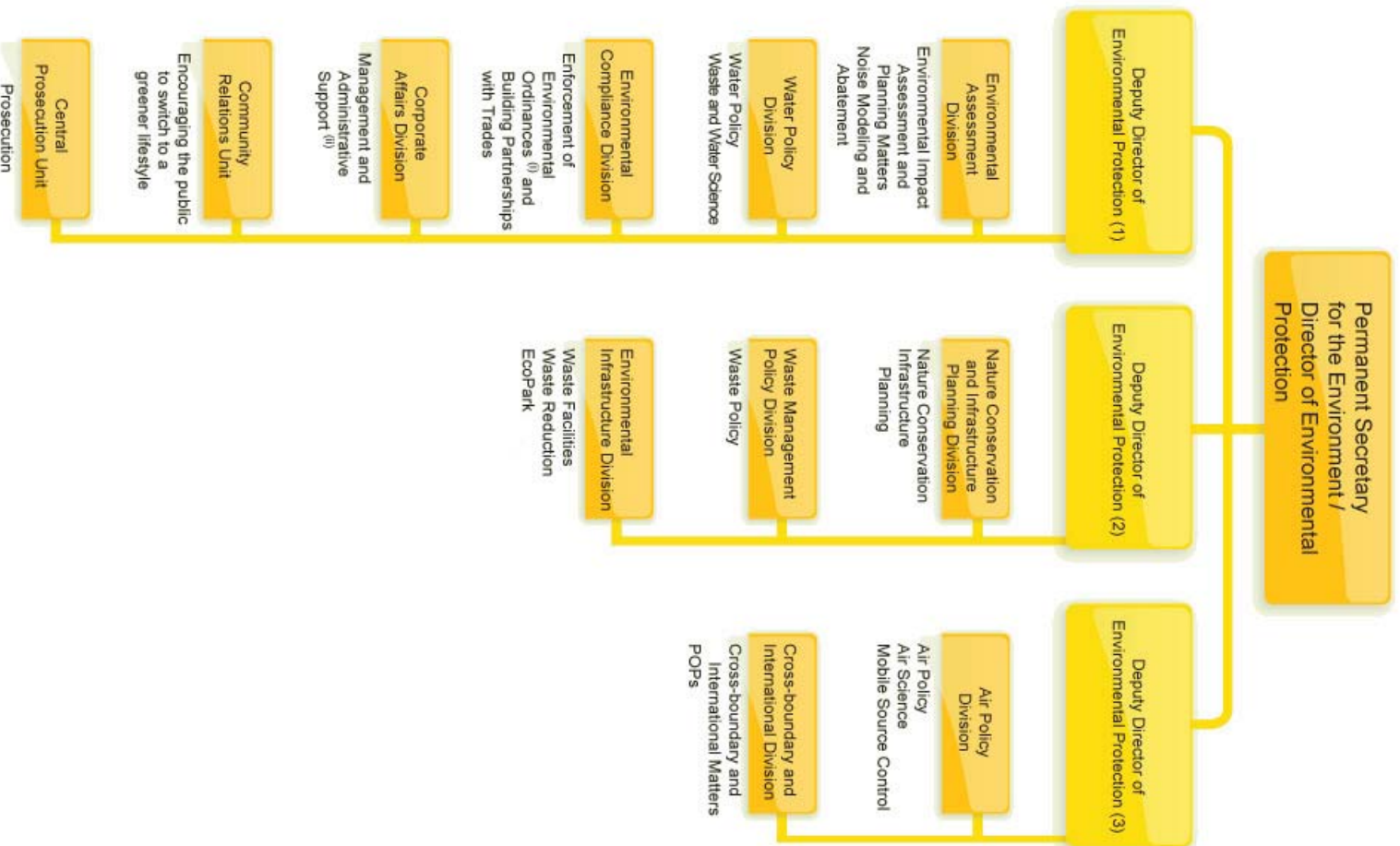
## Environment Bureau

### Energy and Sustainable Development Branch



# Environmental Protection Department

## Environmental Protection Department



**Remarks:**

- (i) Major enforcement duties under Air, Environmental Impact Assessment and Planning, Noise, Waste and Water Programmes are carried out by the Environmental Compliance Division
- (ii) Covers corporate environmental management, knowledge management, staff safety and health, human resources management, and information technology.



## 2 OUR PROFILE

### B. Vision and Strategy

#### Vision and Mission

1. Our vision and mission are to achieve a healthy and pleasant environment, to achieve the sustainable development of our city, and to secure a reliable, safe, efficient and reasonably-priced supply of energy.
2. To fulfil those goals, we have adopted an Environmental and Energy Policy that applies to our services, programmes and internal operations (see full text at Appendix I). The policy has adopted the following guiding principles:
  - compliance with the letter and spirit of environmental laws;
  - pre-emption of environmental problems through planning and prevention;
  - preparedness for dealing with emergency environmental incidents;
  - minimisation of consumption;
  - communication of our goals to our staff and the public; and
  - training and professional development of our staff.

## Strategy

3. Eight environmental strategies have been set out to ensure we achieve improvements to Hong Kong's environment and prevent future problems:

Strategy	Goal
<p>Contribute to the formulation of major policies and plans within the Government, including town planning.</p>	<p>Minimise environmental impact of policies, strategies and planning proposals.</p> <p>Incorporate sustainability in decision-making process.</p>
<p>Develop and implement environmental improvement programmes, monitor environmental quality and handle pollution complaints and incidents.</p>	<p>Achieve direct improvements in:</p> <ul style="list-style-type: none"> <li>• Air quality</li> <li>• Noise mitigation</li> <li>• Water quality</li> <li>• Waste management</li> <li>• Nature conservation</li> </ul>
<p>Plan and provide waste management facilities.</p>	<p>Ensure waste is handled and disposed of in a sustainable and environmentally responsible manner.</p>
<p>Establish a regulatory control framework and enforce environmental ordinances.</p>	<p>Reduce air, water, waste and noise impacts from polluting activities.</p>
<p>Formulate policies on energy supply and develop programmes to promote energy efficiency.</p>	<p>Minimise environmental impacts from the production and use of energy.</p>
<p>Build partnerships and engage stakeholders.</p>	<p>Secure better co-operation and build capacity among all sectors in improving the environment and promoting sustainable development.</p>
<p>Deliver environmental education programmes to promote environmental awareness and public participation.</p>	<p>Increase community awareness and support for programmes to enhance our environment.</p>
<p>Support research and professionalism in the environmental disciplines.</p>	<p>Contribute to the development of the environmental management profession in Hong Kong.</p>





### 3 ENVIRONMENTAL IMPACTS OF OUR OPERATIONS

#### 1. Minimising Energy Consumption

1.1 We have achieved or exceeded all of our aims for 2009:

- Reduced electricity consumption by 1.8 per cent, exceeding the target of 1 per cent.
- Maintained good indoor air quality in our offices. 16 offices are certified under the Indoor Air Quality Certification Scheme.
- Procured environment-friendly vehicles as new or replacement vehicles, including an electric vehicle.
- Continued to encourage new waste management contractors to join the Clean Air Charter.
- Ensured waste management facilities met international emission standards when preparing new contracts.
- Continued to explore a landfill gas utilisation scheme for SENT landfill.

1.2 Efficient use of energy is a priority and we have implemented a series of energy-saving measures that have resulted in steady progress in reducing our electricity consumption. In 2009 we were able to get a fuller picture of our electricity use by incorporating Environment Bureau’s (ENB) consumption with that of Environmental Protection Department (EPD), and applying that retrospectively to 2008. The amount of electricity consumption in 2009 was 2.867 gigawatt hours (GWh) (see Table1), representing a 1.8 per cent drop.

Electricity Consumed	2.867 GWh
CO <sub>2</sub>	2 007 tonnes
SO <sub>2</sub>	6 022 kg
NO <sub>x</sub>	3 728 kg
RSP	287 kg

\*Not including air-conditioning. We share office space in buildings that do not have separate metering for consumption related to air-conditioning.

1.3 We have also been trying to reduce fuel consumption by vehicles. However, in 2009 fuel consumption rose due to an expansion of activities that caused an increase in vehicle usage (see Table 2). We will continue to work towards reducing fuel consumption as far as practicable.

1.4 In terms of waste management facilities, the latest European Union emission standards will apply to the Chemical Waste Treatment Centre in its follow-on contract, which comes into effect during the year. Work will also be expedited on the landfill gas utilisation scheme for the SENT landfill.

Table 2 - Annual fuel consumption and pollutant emissions

Fuel Consumption in 2008 and 2009						
Year	Road Fleet	Petrol (litres)	Diesel (litres)	LPG (litres)	Mileage (km)	ULSD <sup>[1]</sup> (litres)
2008	52 vehicles <sup>[3]</sup>	88 000	60	2 600	623 000	84 000 <sup>[2]</sup>
2009	52 vehicles <sup>[4]</sup>	101 000	60	2 700	673 000	92 000
Pollutant Emissions in 2009 (kg)						
		SO <sub>2</sub>	NO <sub>x</sub>	RSP		
Road Fleet		-	610	0.1		
Marine Vessel		8	4 600	180		

Notes:

<sup>[1]</sup>ULSD is used by our marine monitoring vessel, the 'Dr Catherine Lam'.

<sup>[2]</sup>The 'Dr Catherine Lam' underwent a major overhaul from February-April 2008 and was out of use during that period, so fuel consumption for the year was reduced.

<sup>[3]</sup>47 petrol vehicles, two LPG, two hybrid and one Euro II diesel

<sup>[4]</sup>48 petrol vehicles, one LPG, two hybrid and one Euro II diesel.

### Energy-saving Measures

1.5 Our energy-saving measures include:

#### Overall energy management

- Manage energy performance and identify further opportunities for saving through the Energy and Emissions Management Team.
- Have Energy Wardens in all offices to monitor conservation efforts.
- Conduct annual self-inspections in all offices and laboratories to identify areas of improvement.
- Adhere to the reporting requirements on energy consumption under the Clean Air Charter, which the Government signed in 2006.

## **Offices**

### Cooling and heating

- Maintain room temperatures at 25.5 degrees Celsius in summer months, and encourage staff to dress down in summer
- Use installations such as sectional control switches and occupation sensors.

### Lighting

- Replace ageing lighting equipment with energy-saving devices, and use occupational sensors.
- Reduce lighting as appropriate and switch lights off when not in use. Reinforce with routine checks and reminders.

### Office equipment

- Use power-saving features and programmable timers for computers and other equipment, and purchase equipment with energy efficiency labels.
- Switch off equipment when not in use and post reminder stickers near light switches and office equipment.

## **Transport**

- Procure new electric vehicles to promote the use of electric vehicle.
- Require hybrid vehicles under new waste facilities contracts.
- Encourage staff to walk or use public transport where possible, and to car pool when using government vehicles.
- Promote green driving practices such as switching off idling engines, making only necessary trips, driving at a steady speed and planning routes to minimise journey time.

## ***Contractors***

- Require operators of waste management facilities to follow stringent contractual requirements to control and monitor emissions.
- Require continuous monitoring of emissions from the Chemical Waste Treatment Centre and monthly reports released to the public.
- Encourage new contractors to sign the Clean Air Charter and commit to reducing their emissions.

## **2. Reducing Waste**

2.1 In 2009, photocopying paper consumption fell by 6.9 per cent through our on-going paper-saving initiatives. We will continue to apply paper-saving measures, such as using e-applications and processing for internal procurement and leave application and promoting electronic sharing of reports and presentation materials, and investigate other areas of potential saving.

2.2 Recovery and recycling is carried out under the Consumables and Inventory Recycling Scheme. In 2009 we recycled around 45 400 kg of waste paper and 520 kg of plastic waste. We also continued to collect used printer cartridges and used photocopier toner cartridges for recycling. A new software programme was identified that can help to reduce the consumption of toner during printing and this will be installed in all of our computers. We also launched a pilot programme to recycle our old computers, some of which have been donated to the needy after refurbishment.



*Waste paper, metal and plastics are collected separately in our offices for recycling.*

## **3. Green Procurement**

3.1 The Government is committed to green procurement. It procures products with green features subject to sufficient market supply and economic rationality, with the aim of improving the Government's environmental performance and helping to promote a market for green products. The EPD works closely with the Government Logistics Department to develop green specifications for the products. To date, green specifications have been developed for over 100 products frequently procured by the Government. Consideration is also being given to expanding the green procurement policy to services such as government vehicle hiring.





**ENB / EPD Premises Certified Under the Indoor Air Quality Certification Scheme**

ENB / EPD Premises	IAQ Class Awarded
1. IAQ Information Centre	Excellent
2. Offices in Southorn Centre	Good
3. Offices in Revenue Tower	Good
4. Wan Chai Environmental Resource Centre	Good
5. Offices in Tsuen Wan Government Offices	Good
6. IWT S Administration Building	Good
7. Offices in Shatin Government Offices	Good
8. Chemical Waste Treatment Centre office	Good
9. Fanling Environmental Resource Centre	Good
10. Offices in Chinachem Exchange Square	Good
11. Offices in Cheung Sha Wan Government Offices	Good
12. Offices in Chinachem Tsuen Wan Plaza	Good
13. Offices in Nan Fung Commercial Centre	Good
14. Office in Murray Building	Good
15. Kennedy Town Environmental Exhibition Centre	Good
16. Office in Hoepwell Center	Good



## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

Hong Kong's environment faces a multitude of pressures from pollution and development. The Environment Bureau (ENB) and Environmental Protection Department (EPD) work to stave off these pressures and improve and protect the environment, to help Hong Kong achieve more sustainable development. The most pressing issues in 2009 related to air, energy, waste and water. Some of these issues are cross-boundary and we worked with our colleagues in Guangdong to address them. We also continued to seek improvements and refinement of our policies on nature conservation, noise mitigation, environmental assessment, sustainable development and compliance.

### Main areas of work:

- [Better Air Quality](#)
- [Better Water Quality](#)
- [Environmentally Sound Waste Management](#)
- [Greener Energy Management](#)
- [Nature Conservation](#)
- [Quieter Environment](#)
- [Cross-boundary and International Co-operation](#)
- [Prevention and Mitigation Through Environmental Assessment](#)
- [Sustainable Development](#)
- [Building Partnerships and Encouraging Compliance](#)

## 1. Better Air Quality

### Mission:

*To protect the health and well being of the community by achieving and maintaining satisfactory air quality through intervention in the planning process and by enforcing the controls in the Air Pollution Control Ordinance and the Ozone Layer Protection Ordinance.*

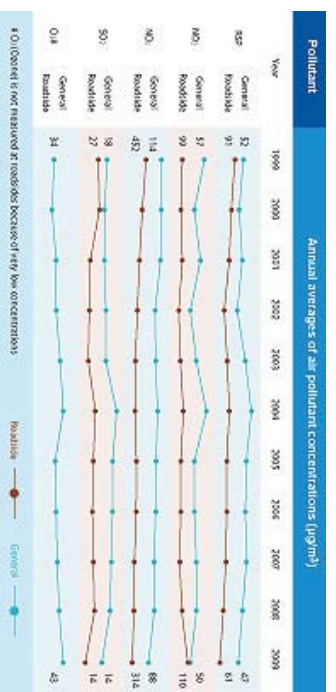
### Air Quality in 2009

#### Hong Kong

1.1 General air quality improved in 2009 as we continued our efforts to reduce emissions and meet the emission reduction targets jointly agreed with Guangdong in 2002. Pollution levels at the 11 general monitoring stations all complied with the annual Air Quality Objectives (AQOs), up from nine in 2008, continuing the long-term trend towards improved air quality (see Table 3).

1.2 Roadside air quality offered a mixed picture: a drop in levels of respirable suspended particulates (RSP), nitrogen oxides (NOx) and sulphur dioxide (SO<sub>2</sub>), but an increase in nitrogen dioxide (NO<sub>2</sub>) that was triggered by higher levels of ambient ozone (O<sub>3</sub>). The increase in NO<sub>2</sub> levels resulted in more high pollution days at roadsides (a reading of 100 or above on the Air Pollution Index). However, the overall picture should be seen in the context of longer-term trends. Since 1999, when our comprehensive vehicle emission programme began, roadside levels of RSP, NOx and SO<sub>2</sub> levels have fallen by between 31 per cent and 48 per cent (see Figure 1).

Figure 1 - Air quality trends in Hong Kong 1999-2009



SEE DATA

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Table 3 - Compliance status of long-term (annual) Air Quality Objectives in 2009

Station	Pollutant	1 year		3 years		5 years		10 years	
		✓	✗	✓	✗	✓	✗	✓	✗
General Station	Central/Western	✓	✓	✓	✓	✓	✓	✓	✓
	Eastern	✓	✓	✓	✓	✓	✓	✓	✓
	Kwai Chung	✓	✓	✓	✓	✓	✓	✓	✓
	Ma Tau Tong	✓	✓	✓	✓	✓	✓	✓	✓
	Sham Shui Po	✓	✓	✓	✓	✓	✓	✓	✓
	Tsuen Wan	✓	✓	✓	✓	✓	✓	✓	✓
	Sha Tin	✓	✓	✓	✓	✓	✓	✓	✓
	Tai Po	✓	✓	✓	✓	✓	✓	✓	✓
	Yung Chung	✓	✓	✓	✓	✓	✓	✓	✓
	Yuen Long	✓	✓	✓	✓	✓	✓	✓	✓
Roadside Station	Craneview Drive	✓	✓	✓	✓	✓	✓	✓	✓
	Ming Yick	✓	✓	✓	✓	✓	✓	✓	✓

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## Review of Air Quality Objectives

1.3 Air Quality Objectives (AQOs) are the measure by which Hong Kong's air quality is assessed. Although we have made good progress toward meeting the AQOs over the past decade, we recognise that these need to be re-considered in light of new scientific findings about air pollution and health. In 2009 a review study recommended new AQOs with reference to the World Health Organisation's latest air quality guidelines, and 19 measures for achieving them. This was followed by a four-month public consultation that ended 30 November 2009. We are now reviewing the findings and feedback to decide how best to take forward the study's recommendations.

## The Regional Picture

1.4 We are confident we can achieve the 2010 emission reduction targets jointly agreed with the Guangdong Provincial Government. The most recent figures, covering 2008, show that emissions of NO<sub>x</sub>, RSP and volatile organic compounds (VOC) have been reduced to close to and even beyond the agreed targets (see Table 4). Progress has been slower with SO<sub>2</sub>, but this should improve with the imposition of stringent emission caps in the specified licences for power plants, which contribute 88 per cent of SO<sub>2</sub> emissions (see below).



Ms Anissa WONG, the Permanent Secretary for the Environment (second from left) and other EPD officials at a public consultation forum on the Review of Air Quality Objectives chaired by Prof NG Cho-nam (centre).



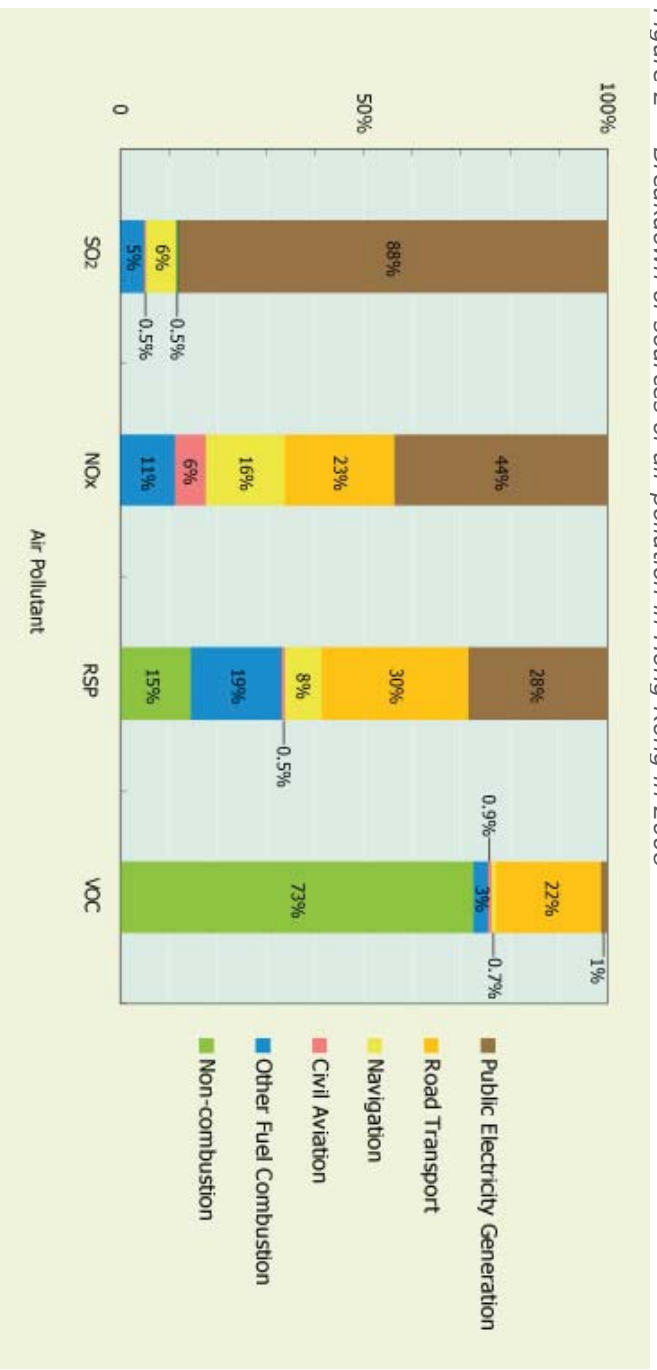
Table 4 - Progress in achieving the 2010 emissions reduction targets

Pollutant	Emission Level 1997 (tonnes)	Emission Level 2008 (tonnes) (preliminary figures)	Change in Emission Level 1997-2008 (preliminary figures)	Emission Reduction Target for 2010
SO <sub>2</sub>	66 200	57 400	-13%	-40%
NO <sub>X</sub>	124 000	88 100	-29%	-20%
RSP	11 500	5 290	-54%	-55%
VOC	68 800	34 400	-50%	-55%

## Reducing Emissions

1.5 Power plants and motor vehicles are the main sources of air pollution in Hong Kong (see Figure 2), although other sources make significant contributions, such as products containing VOC. Our recent progress in reducing these emissions is described below.

Figure 2 - Breakdown of sources of air pollution in Hong Kong in 2008



## Power plants

1.6 Power plants account for 88 per cent of Hong Kong's SO<sub>2</sub> emissions, 44 per cent of NO<sub>X</sub> and 28 per cent of RSP. The most recent figures from 2008 show levels of all three pollutants from the power sector have fallen (see Figure 3). Emissions are expected to fall further under the stricter mandatory emission caps that come into effect in 2010. In 2009 these caps were included in the renewed specified process licences of Lamma Power Station, Castle Peak Power Station, Black Point Power Station and Penny's Bay Gas Turbine Power Station.

Figure 3 - Emissions from power generation sector 2005 - 2008

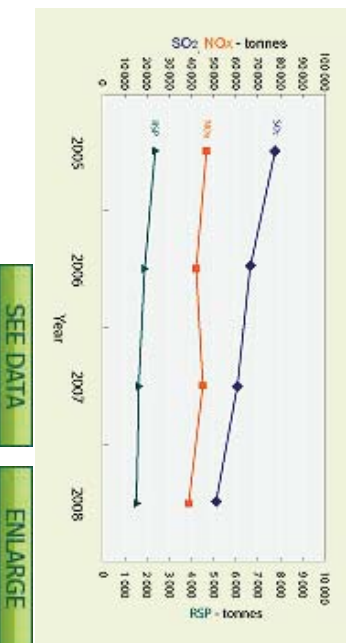
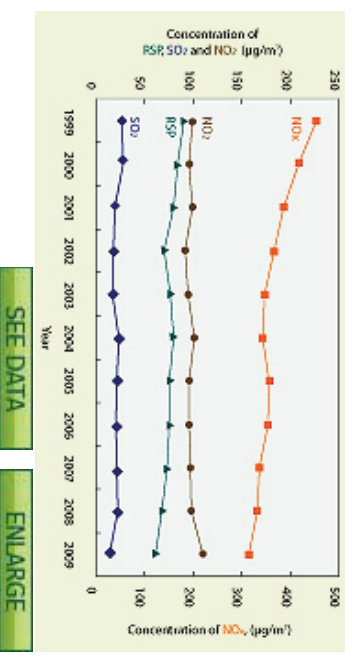


Figure 4 - Roadside air quality trends in Hong Kong 1999-2009



## Motor vehicles

1.7 In 1999 we launched a comprehensive programme to remove the most polluting vehicles from roads and introduce cleaner fuels, which has achieved significant reductions in roadside pollution (see Figure 4). Nevertheless, there is room for improvement and we are continuing to work to reduce vehicle emissions. Milestones in 2009 included:

- Mandating specifications for motor vehicle biodiesel in the Air Pollution Control (Motor Vehicle Fuel) Regulation to help boost consumer confidence in this fuel and ensure its quality.
- Fine-tuning a proposal to ban idling engines, after consulting the Legislative Council and transport trades. A bill will be put before the Legislative Council in 2010.
- Promoting and testing electric vehicles (see Case Study 1).

## Case Study 1 - Embracing New Technology: Electric Vehicles

Electric vehicles (EVs) have no tailpipe emissions, which could make a difference to roadside air quality. In 2009 the Government undertook to promote EVs. The waiver on the first registration tax for EVs was extended for five years, and trials of the Mitsubishi innovative electric vehicle (the "i MIEV") and BYD's dual mode plug-in hybrid vehicle (the "F3DM") under Hong Kong driving conditions showed positive results. Charging stations were set up in nine government premises and the two power companies launched their own batch of charging stations in late 2009. Hong Kong has also joined the EV Steering Committee of the C40, a group of the world's largest cities, and it will lead the C40 EV Working Group to investigate EV-related issues.



Mr Edward YAU, the Secretary for the Environment, speaks at a plenary session of the C40 Large Cities Climate Summit Seoul 2009.

### ***Non-road mobile source***

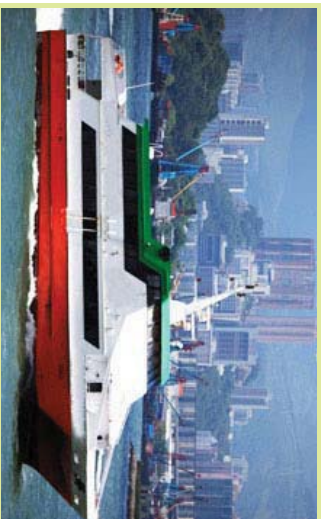
1.8 A proposal to control emissions from non-road mobile sources, including non-road vehicles and mobile machinery used within the airport, container terminals and construction sites has been prepared to consult stakeholders in 2010.

### ***Other sources of emissions***

1.9 Volatile organic compounds (VOC) are a major contributor to smog formation and one of four pollutants for which Hong Kong and Guangdong have set joint emission reduction targets. Controls on the VOC content in certain products were introduced in 2007, and in 2009 a legislative amendment extended these controls to paints/coatings for vehicle refinishes, vessels and pleasure craft, adhesives, and sealants.

1.10 Ozone layer protection measures were also extended in 2009. Regulations to control products containing chlorofluorocarbons (CFCs) and halons now apply to products containing other scheduled substances, such as air-conditioners containing hydrochlorofluorocarbons (HCFCs). We also undertook to ban the import of metered-dose inhalers containing CFCs and fire extinguishers containing HCFCs and bromochloromethane from 1 January 2010.

***See also: TARGETS - Our Progress and 2010 Aims.***



***Pollution from local ferries:*** Local ferries account for about 20 per cent of emissions from local vessels. They could reduce their SO<sub>2</sub> emissions by more than 90 per cent and their particulates by about 30 per cent if they switched from marine light diesel to ultra low sulphur diesel (ULSD). A trial of ULSD use in ferries was launched in 2009 with the co-operation of four ferry companies, to assess the technical feasibility and implications in terms of costs and operations. The trial will be completed in 2010 and the results will be used to map out a way forward.



## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

### 2. Better Water Quality

#### **Mission**

*To achieve marine and fresh water quality objectives that will safeguard the health and welfare of the community and meet various conservation goals, by planning for the provision of sewage facilities, intervening in the planning process and enforcing the controls in the Water Pollution Control Ordinance and the Dumping At Sea Ordinance.*

#### **Water Quality in 2009**

2.1 Water quality in Hong Kong's marine waters, rivers and streams, and beaches remained quite good in 2009, when well over 80 per cent of Water Quality Objectives (WQOs) were met (see Figures 5 to 7). Marine waters and beaches in particular improved over 2007 and 2008, helped by drier weather conditions that meant fewer pollutants were flushed into the sea. However, there is still a persistent 10-20 per cent shortfall in meeting WQOs that we are trying to improve (see below).

#### **WQO Review**

2.2 The WQOs are being reviewed in light of new scientific and technological advances in understanding and monitoring water quality. A public engagement exercise was held in 2009 to gather views from the general public as well as such key stakeholders as District Councils, the fisheries and marine industries, marine conservation groups, recreational groups, and professionals and academics. The input will be used to propose new WQOs on which the public will be consulted again.

#### **Case Study 2 - Healthy Beaches**

Water quality in the beaches has improved greatly since the late 1990s (see Figure 7) thanks to efforts to control sewage flows from beach hinterlands and improve general water quality. A beach grading system alerts the public to beach water quality. In 2009, 38 of the 41 gazetted beaches were graded "Good" or "Fair", which means they comply with Water Quality Objectives, up from 34 the previous five years. The four beaches showing improvement were in Tsuen Wan, which has been positively affected by the commissioning of Advance Disinfection Facilities under HATS, the provision of new public sewers along Castle Peak Road and stepped-up enforcement of water pollution control laws. Drier weather may also have contributed to better water quality because fewer pollutants were washed into the sea.



## Regional water quality

2.3 Hong Kong and Guangdong are working together to improve water pollution control in their shared waters through monitoring and the implementation of joint strategies for Deep Bay, Mirs Bay and the Pearl River Estuary. See details in [Cross-boundary and International Co-operation](#).

Figure 5 - Overall compliance with marine Water Quality Objectives in Hong Kong 1986-2009



Figure 6 - Overall compliance with river Water Quality Objectives in Hong Kong 1986-2009

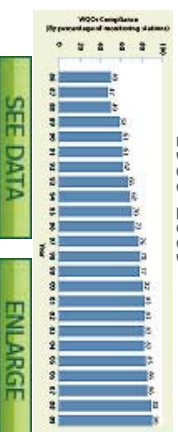


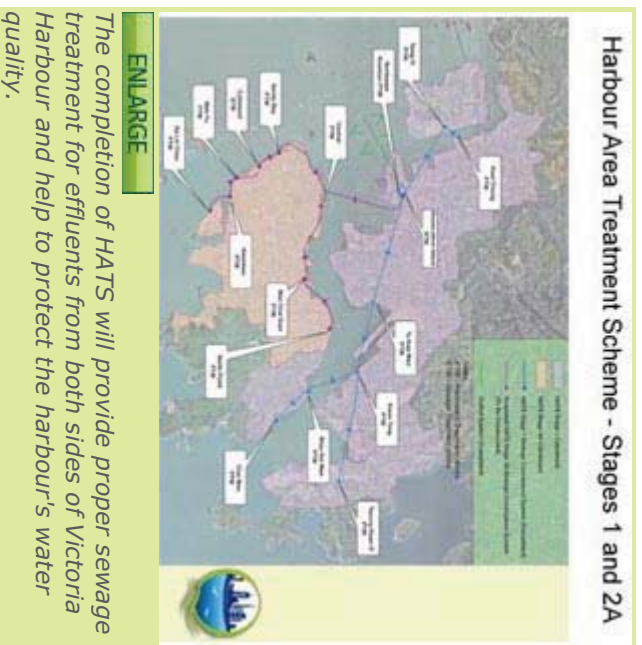
Figure 7 - Overall compliance with beach Water Quality Objectives in Hong Kong 1986-2009



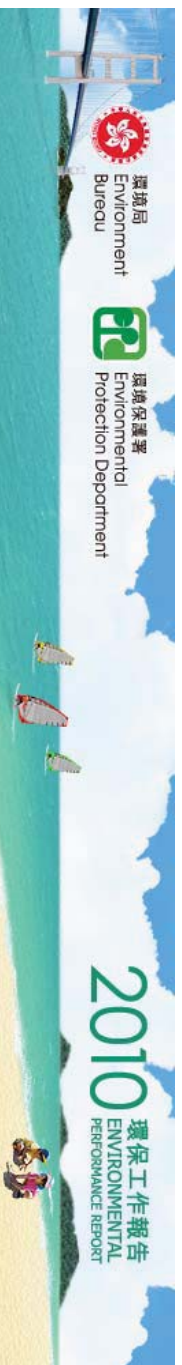
## Reducing Water Pollution

2.4 The Harbour Area Treatment Scheme (HATS) aims to ensure all sewage around Victoria Harbour is properly treated and disposed of. HATS Stage 1, completed in 2001, treats 75 per cent of the harbour's sewage. HATS Stage 2A, costing \$17.2 billion, provides disinfection and will collect the remaining sewage. The Advance Disinfection Facilities were commissioned in December 2009 and the rest of Stage 2A will be completed by 2014. Planning is also underway for HATS Stage 2B, which would provide a higher level of treatment. Underground biological facilities have been proposed and a review of the project will begin in mid-2010.

2.5 River and stream pollution is being tackled through the village sewerage programme. The programme connects village houses to the public sewer system, to prevent them from releasing untreated sewage into rivers and streams and ultimately into the sea. By the end of 2009, 6 011 village houses in 130 villages had been connected.



**See also: TARGETS - Our Progress and 2010 Aims.**



## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

### 3. Environmentally Sound Waste Management

#### **Mission:**

*To safeguard the health and welfare of the community from adverse environmental effects associated with the handling and disposal of wastes by developing a sustainable waste management strategy, providing waste management facilities and enforcing the controls in the Waste Disposal Ordinance.*

3.1 Waste is one of Hong Kong's most serious environmental challenges because waste loads have increased faster than expected over the past two decades, and landfills are running out of space. While we have had some recent success in reducing waste loads, the situation is still not sustainable and we need to find long-term solutions to waste management.

#### **Waste Arisings**

3.2 Overall waste loads have fallen steadily since 2002, including a 1.6 per cent drop in 2009 to 4.86 million tonnes. This trend has been the result of such factors as landfill disposal charges for construction waste and various programmes to reduce and recycle domestic and commercial and industrial waste. Domestic waste requiring disposal has fallen by 14.5 per cent since 2004 and by 1.4 per cent over 2008. Commercial and industrial waste loads stayed at about the same level during the year.

Figure 8 - Solid waste landfilled in Hong Kong 2001-2009



#### **Reducing Waste**

#### **Producer responsibility schemes (PRSS)**

3.3 PRSS ask producers and consumers to take greater responsibility for the recovery and recycling of waste products. The Product Eco-Responsibility Ordinance, enacted in July 2008, provided a legal framework for mandatory PRSS and in 2009, the first such scheme was introduced for plastic shopping bags. Work was also underway to develop a second mandatory PRS for waste electrical and electronic equipment, on which the public will be consulted in early 2010.

3.4 Voluntary PRSS are also in place for computers, rechargeable batteries, fluorescent lamps and waste glass bottles from hotels (see Table 5).

Table 5 - Voluntary producer responsibility programmes – quantities recovered

Programme	2008	2009
Rechargeable Battery Recycling Programme	26.6 tonnes (160 480 pieces)	32.5 tonnes (154 750 pieces)
Computer Recycling Programme	19 170 major items (including desktop and notebook computers, CRT and LCD monitors, scanners and printers)	14 134 major items
Fluorescent Lamp Recycling Programme	163 570 pieces*	312 310 pieces
Glass Bottles from Hotel Sector	62 tonnes#	428 tonnes

\* Programme was launched in March 2008. The figure is for April-December 2008.

# Programme was launched on 11 November 2008. Figure is for 11 November-31 December 2008.

### **Municipal solid waste charging**

3.5 The Government has been exploring charges for municipal solid waste charging as a direct economic incentive to reduce waste. A three-month trial scheme on domestic waste was completed in 2007 and a baseline study on commercial and industrial waste generation pattern and management was underway in 2009. We will continue to examine feasible municipal solid waste charging options in the local context.

### **Recovery and recycling**

3.6 The Programme on Source Separation of Waste, launched in 2005, reached 67 per cent of the population by the end of 2009, in 1 256 housing estates. This has exceeded our target of 1 140 estates and we expect to reach 1 360 estates (80 per cent of the population) by the end of 2010. The Programme's effect on waste recovery is evident from the corresponding increase in domestic waste recovery from 14 per cent in 2004 to 35 per cent in 2009 (see Figure 9). The Programme was extended to the commercial and industrial sector in October 2007 and by the end of 2009, 554 buildings had joined.

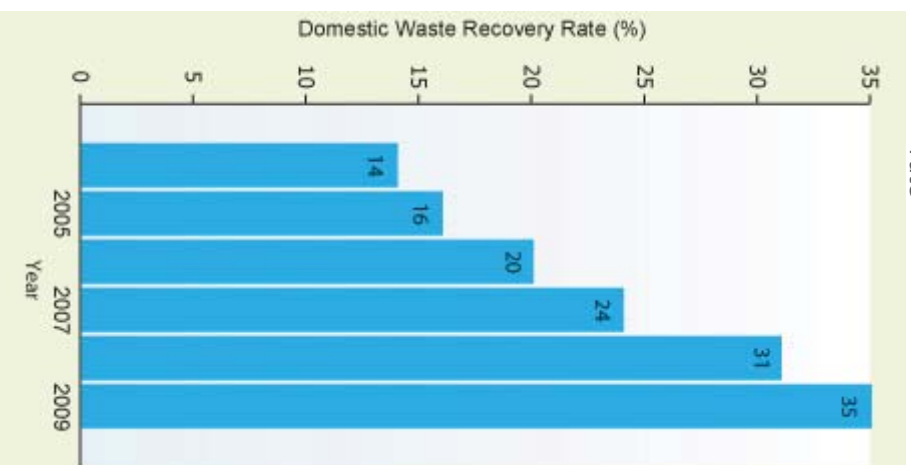


**Taking responsibility:** More mooncake manufacturers agreed to reduce the packaging on their products in 2009, and use recyclable materials where possible.



3.7 The Hong Kong Second-hand Exchange website, set up in 2007, is another outlet for re-usable waste and by the end of 2009 it had received 484 000 visits.

Figure 9 - Domestic waste recovery rate



### Case Study 3 - PRS in Action: Plastic Shopping Bags Environmental Levy

Hong Kong throws away enormous quantities of plastic bags – eight billion bags in 2005 alone. To address this long-term problem, a mandatory 50-cent environmental levy was introduced in 2009 on plastic shopping bags distributed by large supermarkets, convenience stores and personal health and beauty stores. The public had been consulted beforehand and responded positively: registered retailers distributed only about 13.5 million bags in the first three months of the new levy, less than expected. The introduction of the levy was supported by extensive media and community events targeted at different sectors of society, such as students, the elderly and domestic helpers (see also Working with Stakeholders).



Mr Edward YAU, the Secretary for the Environment (centre right), officiates at an event to promote the mandatory 50-cent environmental levy on plastic shopping bags.

## Waste Facilities

### Landfills

3.8 Landfills have been the main solution for Hong Kong’s waste to date, but they are quickly running out of space. The Environmental Protection Department therefore has been making preparations to extend all three strategic landfills by the mid to late 2010s. In 2009, the EIA report for the West New Territories Landfill Extensions was approved, land re-zoning for the North East New Territories Landfill Extension was completed and land re-zoning for the South East New Territories Landfill Extension was begun. However, landfilling alone is not a sustainable solution without waste treatment and reduction.

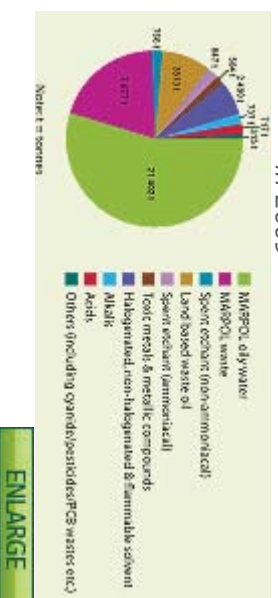
## Waste treatment

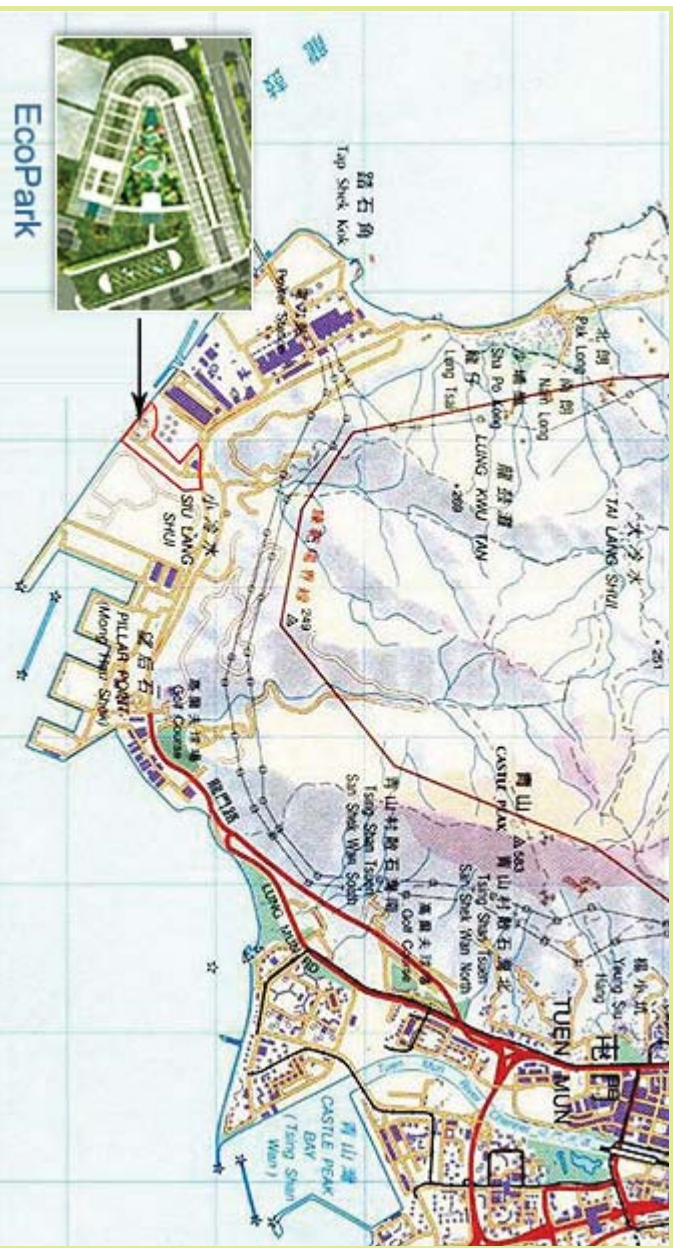
3.9 Several waste treatment facilities are planned for reducing the bulk of Hong Kong's waste. In 2009, Sludge Treatment Facilities to treat sludge from sewage treatment processes were approved by the Legislative Council Finance Committee. Tenders were invited for the project, which will begin operating in 2013 with an initial capacity of 1 600 tonnes per day. An EIA for Organic Waste Treatment Facilities was also completed during the year.

3.10 Most importantly, preparation work continued on Integrated Waste Management Facilities (IWMF), which would treat the bulk of municipal waste. Public engagement on the project continued in 2009 and EIA studies on two potential sites were underway. The EIA studies will be completed in 2010, after which a final decision on the IWMF location will be made.

3.11 The Chemical Waste Treatment Centre handles most of the chemical waste in Hong Kong. In 2009 it was awarded a follow-on contract that included stipulations to upgrade facilities and enhance its environmental performance to meet the latest international standards. The Centre is also being modified to receive clinical waste in future.

Figure 10 - Chemical Waste Handled by the Chemical Waste Treatment Centre in 2009





**EcoPark:** The EcoPark provides long-term land at affordable costs for the recycling and environmental industry with a view to encouraging investment in advanced and value-added processes. By the end of 2009, all six lots in Phase 1 of the EcoPark had been let out for the recycling of waste cooking oil, metals, wood, computers, car batteries and plastics.

**See also: [TARGETS](#) - Our Progress and 2010 Aims.**



## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

### 4. Greener Energy Management

#### **Mission:**

*To ensure reliable supplies of energy at reasonable prices, promote its efficient and safe use, and at the same time minimise the environmental impacts in the production and use of energy.*

4.1 The Government has committed to reduce its energy intensity by at least 25 per cent by 2030 (using 2005 as a base year), a target supported by the APEC Economic Leaders and re-affirmed by the Chief Executive in his 2009-10 Policy Address. To achieve this end, efforts in 2009 focused on generating cleaner electricity and reducing energy consumption.

#### **Cleaner Electricity Generation**

4.2 The HKSAR Government signed a Memorandum of Understanding with the National Energy Administration in 2008 to provide a continuous supply of less-polluting nuclear electricity and natural gas to Hong Kong for 20 years. In 2009 the necessary approval work for construction of a natural gas pipeline started and approval was given to extend nuclear electricity supplies from Daya Bay Nuclear Power Station to CLP Power Hong Kong Ltd. for another 20 years from 2014.

4.3 Additionally, the Scheme of Control Agreements with the two power companies include goals to improve the companies' environmental performance, penalties if they fail to achieve emission caps, and incentives if they over-achieve the caps and adopt renewable energy.

#### **Reducing Energy Consumption**

##### ***Building Energy Codes (BECs)***

4.4 BECs offer a way to achieve significant energy savings in buildings, which account for almost 90 per cent of total electricity consumption in Hong Kong. In December 2009 the Government introduced the Buildings Energy Efficiency Bill into the Legislative Council, which proposes mandatory minimum energy performance standards for lighting, electrical, air-conditioning, and lift and escalator installations in new buildings and in major retrofitting works in existing buildings. Commercial buildings would also require energy audits.



4.5 The same goal of improving building energy consumption underlies the planned district-wide cooling system in the Kai Tak Development, which would centralise the chilling of water for air-conditioning systems in the area. The first phase should be commissioned in 2013.

#### ***Government performance***

4.6 The Government leads by example in promoting green buildings. In April 2009 it adopted a comprehensive target-based performance framework for its buildings, which sets targets for energy efficiency, renewable energy, greenhouse gases and waste management. Buildings are assessed based on international or locally-recognised systems and must attain grades no lower than the second highest level in these systems. The Government has also installed more than 340 energy efficiency upgrading projects in its facilities since 2005 and earmarked a further \$130 million for this in 2009-10.

#### ***Carbon audit***

4.7 Carbon audit guidelines for building users and managers were launched by the Environmental Protection Department (EPD) and Electrical and Mechanical Services Department in 2008. The guidelines provide a system for calculating and reporting greenhouse gas emissions from building operations and identifying areas for improvement. More than 140 organisations have become Carbon Audit - Green Partners by signing the Carbon Reduction Charter and acting to reduce their greenhouse gas emissions by end 2009.

#### ***Promoting energy efficient products***

4.8 Energy efficiency labels for certain products became mandatory in November 2009. The initial phase covers room air-conditioners, refrigerating appliances and compact fluorescent lamps. The second phase, commencing in March 2010 with an 18-month grace period, covers washing machines and dehumidifiers. There is also a voluntary labelling scheme for 18 household appliances, office equipment and petrol cars. We are also preparing to consult the public in 2010 on restricting the sale of incandescent light bulbs.



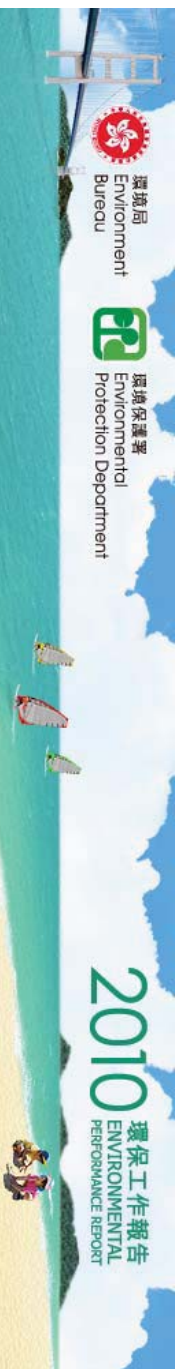


*Energy efficiency labels are mandatory for room air-conditioners (top right), refrigerating appliances (left) and compact fluorescent lamps (bottom right).*

#### ***Case Study 4 - Promoting Energy Saving in the Community: Non-government Organisations (NGOs)***

NGOs have impacts on the environment but lack the resources of a private enterprise. To help them improve their energy performance, a pilot energy-saving scheme for NGOs was launched in 2009, jointly organised by the EPD, Hong Kong Council of Social Service, The Hongkong Electric Co. Ltd. and CLP Power Hong Kong Ltd. Twenty NGOs were selected to be audited by the power companies and to receive recommendations on enhancing energy efficiency in their buildings or premises. The results are expected in 2010 and the NGOs will be encouraged to implement the recommendations and share their experiences with other NGOs. In support of the pilot scheme, the Environment and Conservation Fund launched the Energy Conservation Projects for NGOs funding scheme in October 2009 to provide financial incentives for saving energy.

***See also: TARGETS - Our Progress and 2010 Aims.***



## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

### 5. Nature Conservation

#### **Mission:**

*To conserve natural resources and the bio-diversity of Hong Kong in a sustainable manner, taking into account social and economic considerations, for the benefit of the present and future generations of the community.*

#### **Protecting Natural Sites**

5.1 The Government is committed to promoting nature conservation, and has extended legal protection to a number of natural areas and restricted activities that could harm or alter their environment. To better protect our geosites, the Hong Kong National Geopark was opened in 2009 (see Case Study 5). It joins 24 country parks, four marine parks and one marine reserve.

- 5.2 Two schemes have also been implemented to enhance the conservation of ecologically important sites under private ownership, under the New Nature Conservation Policy: Management Agreement: NGOs can apply for funding to give landowners financial incentives to protect sites. Two projects that began operating in 2006 have achieved significant increases in the diversity and number of birds and butterflies, as well as other improvements to their habitats. The Environment and Conservation Fund approved a further \$9.6 million in 2009 for their continued operation.
- Public-Private Partnership - Pilot Scheme: Applicants may develop less sensitive areas of a site while committing to long-term conservation of the remainder. The scheme involves complex issues, and proposals require careful planning. The Government supported a proposal at Sha Lo Tung in 2008, but the proponent introduced changes to its conservation and development plans in 2009 that made the project subject to the Environmental Impact Assessment Ordinance (EIAO). It is now going through the EIA process.

## Global Conservation Obligations

5.3 Hong Kong adheres to several international agreements to protect the natural environment. In 2009, a bill to control the release of genetically modified organisms (GMOs) into the environment was passed by the Legislative Council (LegCo), enabling Hong Kong to meet the requirements of the Convention on Biological Diversity, and the Cartagena Protocol on Biosafety. GMOs are living organisms, such as seeds, that possess a novel combination of genetic materials that have the potential to produce and grow.

5.4 Work also started on bringing the Protection of Endangered Species of Animals and Plants Ordinance in line with recent updates to the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

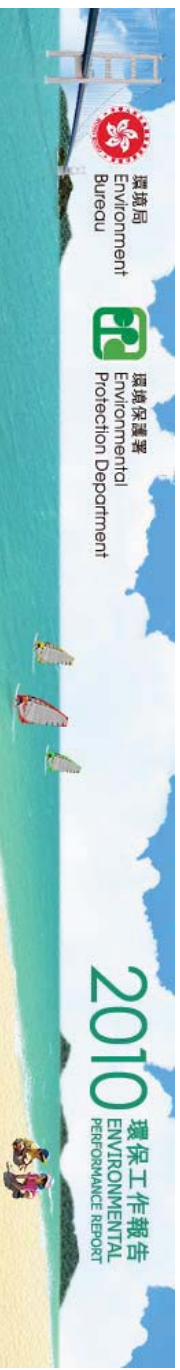


*Mr Edward YAU, the Secretary for the Environment (left), and LegCo members Ms Audrey EU (centre right), Prof Patrick LAU (second from right), Mr CHAN Kin-por (centre left) and Mr IP Wai-ming (right) visit a hexagonal columns volcanic rocks area of the Hong Kong Geopark.*

### **Case Study 5 - Hong Kong's First Geopark**

The Hong Kong National Geopark was officially opened in November 2009, after acquiring "national" status from the Ministry of Land and Resources. The Geopark enhances our geo-conservation efforts and raises awareness about geology in the community. Eight geosites are included in the Geopark. There is also a visitor centre in Sai Kung that provides an overview of Hong Kong's geological environment, and there are two geo-heritage centres set up by NGOs showing local geology in the context of culture, history and the wider environment.

**See also: TARGETS - Our Progress and 2010 Aims.**



## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

### 6. Quieter Environment

#### **Mission:**

*To prevent, minimise and resolve environmental noise problems through formulation of noise policy, intervention in the planning process, implementation of noise abatement measures and enforcement of the Noise Control Ordinance.*

#### **Traffic Noise**

##### **Existing roads**

6.1 More than one million people in Hong Kong are exposed to excessive traffic noise (greater than 70 dB (A)) and the most affected areas can be seen on our noise map. Engineering solutions in the form of low-noise road surfaces (LNRSs) and barriers help to reduce exposure. By the end of 2009, 43 road sections had been re-surfaced with LNRSs under a trial programme, benefiting about 84 000 people, and five road sections had been retrofitted with barriers, benefiting 23 000 people.

6.2 We are also exploring alternative LNRS materials. In 2009 arrangements were underway for a trial of rubberised asphalt on local roads, which could reduce noise further and have enhanced durability. We are also looking into less-noisy road joints at flyovers and reviewing the scope of the noise barrier programme.

##### **New roads**

6.3 Input at the planning stage can help to reduce traffic noise problems, and about 500 000 people have benefited from such input since 1990. LNRSs are now a standard feature for new high-speed roads and barriers are installed on new roads where possible (the latter have benefited 310 000 people since 1990 at a cost of \$2 billion – see Figure 11). Another 7 900 flats have been insulated against traffic noise since 1995, costing \$430 million.



**3-D Noise:** A 3-D modelling tool is used here in a public consultation on retrofitting works along Tai Po Tai Wo Road. 3-D modelling vividly illustrates the impact of noise on nearby buildings from specific road projects and it is commonly used to show people the benefits of proposed projects to reduce traffic noise.



## Construction noise

6.4 truction noise at night and on Sundays and public holidays is controlled through the Noise Control Ordinance. Designated areas, such as residential areas, are subject to tighter controls and in 2009 an expansion of these areas came into effect. The intention is to ensure newly-developed areas and areas under active development have the same protection against construction noise as existing Designated Areas.

Figure 11 - Screening structures to reduce traffic noise 1990-2009



See also: **TARGETS - Our Progress and 2010 Aims.**



## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

### 7. Cross-boundary and International Co-operation

#### **Mission:**

*To protect the environment by tackling cross-boundary pollution problems and by promoting collaborative efforts through regional and international co-operation.*

#### **Regional Activities**

7.1 Hong Kong and Guangdong have worked together for years to address environmental problems of mutual concern. Recently, we agreed on a joint goal to transform the Pearl River Delta (PRD) region into a green, quality living area. This was given a boost in 2009 with the signing of the Environmental Co-operation Agreement at the 12th Plenary of the Hong Kong-Guangdong Co-operation Joint Conference, co-chaired by Hong Kong's Chief Executive and Guangdong's Governor. Both sides agreed to enhance co-operation across a wide range of environmental issues.

7.2 The new agreement is being implemented through the Hong Kong-Guangdong Joint Working Group on Sustainable Development and Environmental Protection, which held its 10th annual meeting in December 2009. The Joint Working Group noted the following achievements for the year:

- **Regional air quality management.** Air quality has improved under the PRD Regional Air Quality Management Plan, which was drawn up to achieve emission reduction targets agreed in 2002. In 2008 regional SO<sub>2</sub> and RSP concentrations dropped by 19 per cent and 11 per cent, respectively, over 2007, despite continuing economic growth in the region. Results for 2009 also indicate continuing declines. These reductions are attributable to the implementation of enhanced emission reduction measures by both sides. Our co-operation will be taken forward under a joint study on the post-2010 arrangements for emission reduction, which was agreed on in 2009.
- **Cleaner production.** The five-year, \$93 million Cleaner Production Partnership Programme, launched in 2008, encourages cleaner production practices in Hong Kong-owned factories in the PRD region. By the end of 2009 the programme had approved 435 funding applications. To provide further encouragement, the Hong Kong-Guangdong Cleaner Production Partners Recognition Scheme was launched in 2009 with Guangdong's Economic & Information Commission. Forty-eight manufacturers and three sourcing enterprises received commendations for their continuing efforts in cleaner production.

- **Water quality.** A joint study will be commissioned in 2010 on the water quality and environmental capacity of the Pearl River Estuary, to provide a scientific basis for future regional water quality management plans. Hong Kong and Shenzhen are also continuing to implement water quality improvement measures in Deep Bay and Mirs Bay.
- **Sharing expertise.** Hong Kong and Mainland environmental authorities frequently organise seminars, workshops and visits to share their expertise and experience. In 2009 their activities covered cleaner production, environmental impact assessment, vapour recovery at petrol filling stations, waste water treatment, and controls on persistent organic pollutants, power plant emissions and vehicle emissions.

7.3 Hong Kong co-operates with other regional partners in addition to the Guangdong Provincial Government. It has a Co-operation Agreement on Cleaner Production with the Habitation and Environment Commission of Shenzhen Municipal People's Government, and by the end of 2009, 108 funding applications had been approved under the Cleaner Production Partnership Programme for Hong Kong-owned factories in Shenzhen. Hong Kong and Shenzhen are also strengthening co-operation and exchanges on the control of motor vehicle emissions, vapour recovery at petrol filling stations, and the management of volatile organic compounds, and will enhance co-operation on clean energy and green transportation in future. Another partner is Macao SAR Government's Environmental Protection Bureau, with which Hong Kong issued a joint publication on low carbon living in 2009 and shared experiences on raising public awareness about green living.

## International Activities

7.4 Hong Kong contributes globally and locally to action to combat climate change. In 2009, the Secretary for the Environment participated in the C40 Large Cities Climate Summit in Seoul, the Copenhagen Climate Summit for Mayors, and the United Nations Climate Change Conference in Copenhagen, which he attended as a member of the Chinese delegation. Hong Kong has also joined the C40 Steering Committee on Electric Vehicles, which aims to help accelerate the deployment of EV technology and infrastructure (see also Case Study 1 in Better Air Quality)

7.5 A comprehensive study on how climate change might affect Hong Kong will be finalised in 2010. The study is reviewing and updating the inventories of our greenhouse gas emissions. It will project trends under different scenarios and recommend measures to further reduce our emissions and enable us to adapt to climate change.

### ***Case Study 6 - Promoting Emission Reduction through CDM***

The Clean Development Mechanism (CDM) is an internationally agreed means by which industrialised countries can fulfil their greenhouse gas reduction obligations under the Kyoto Protocol by implementing emission reduction projects in other countries. In July 2009 we held a capacity-building seminar to introduce CDM developments in China, including Hong Kong, to about 200 representatives of public and private enterprises. We also set forth supplementary notes on the implementation of CDM projects by Hong Kong enterprises in the Mainland, to facilitate participation in CDM projects.



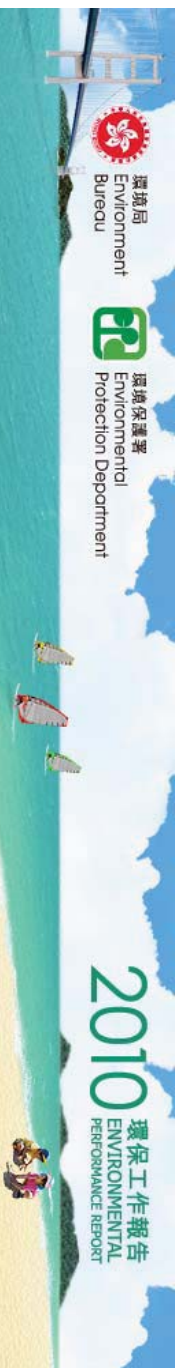
Mr Donald TSANG, the Chief Executive (right), and Mr HUANG Huahua, the Governor of Guangdong Province (left), co-chaired the 12th Plenary of the Hong Kong - Guangdong Co-operation Joint Conference in Hong Kong in August 2009.



Mr Edward YAU, the Secretary for the Environment, attends the United Nations Climate Change Conference in Copenhagen in December 2009.

***See also: TARGETS - Our Progress and 2010 Aims.***





## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

### 8. Prevention and Mitigation Through Environmental Assessment

#### **Mission:**

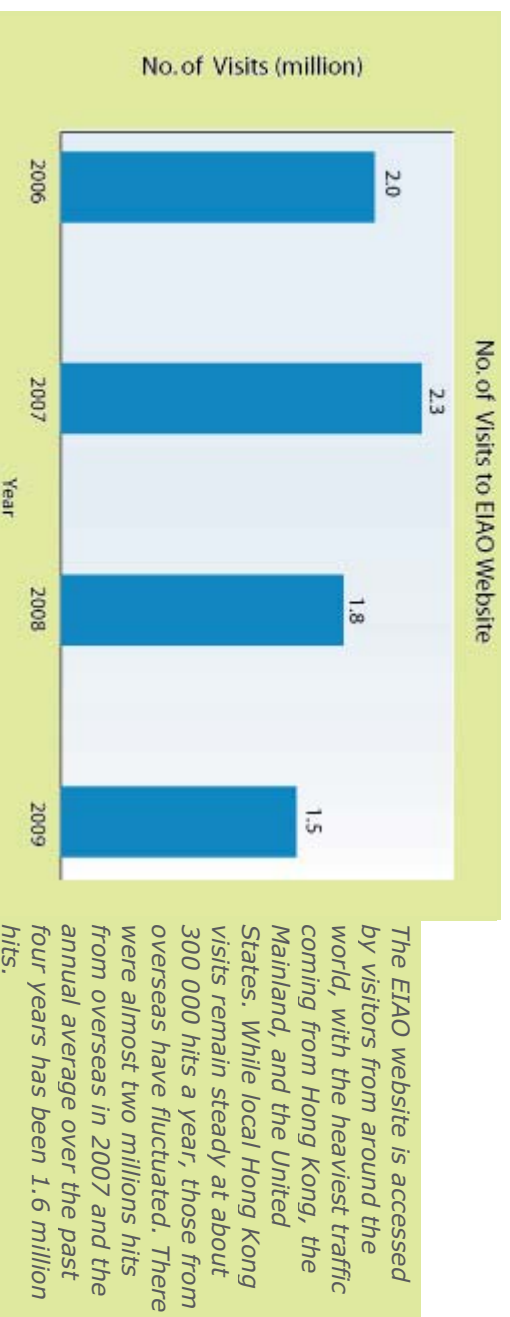
*To pre-empt environmental problems associated with development projects, plans and strategies, by assessing their environmental implications and ensuring that measures are implemented to avoid any potential problems that are identified.*

8.1 Environmental assessment and planning are incorporated into decision-making at the project and strategic levels. Legal and administrative tools ensure that they are applied to both government and private sector projects, and that they incorporate early public input and involvement.

#### **Environmental Impact Assessment Ordinance**

8.2 The Environmental Impact Assessment Ordinance (EIAO) is the chief legal framework for ensuring designated projects undergo environmental impact assessment (EIA). Since it was implemented in 1998, 148 EIAs have been approved and 1.5 million people and many ecologically sensitive sites have been protected from unacceptable impacts. In addition, 41 major infrastructure projects have been required to include a 3-D tool in their EIAs to illustrate the impacts of projects and mitigation measures and facilitate public understanding. Eight of these reports were submitted in 2009 and uploaded to our [on-line library](#) of EIA reports and 3-D visualisations.

8.3 EIAO guidance notes for practitioners were reviewed in 2009 to take into account new practices and technologies, such as the use of infrared cameras in ecological baseline studies. More than 100 organisations were consulted for their input and the guidance notes are now being revised. They were originally issued between 2002 and 2005.



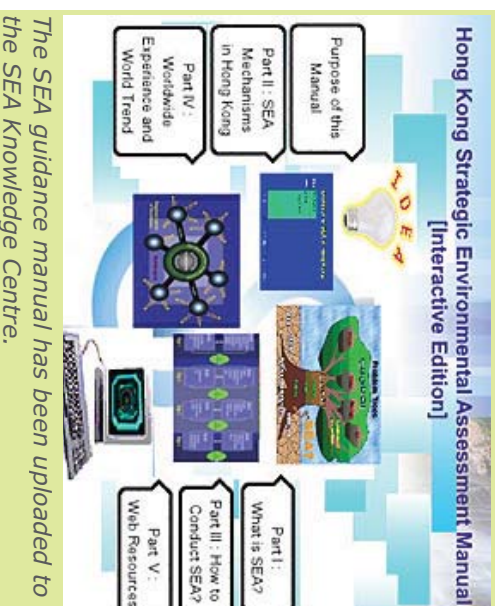
## Strategic Environmental Assessments (SEAs)

8.4 SEAs are carried out on major planning and development proposals early in the decision-making process, to identify major environmental issues and recommend prevention or mitigation measures. A major SEA study on Land Use Planning for the Closed Area is currently underway. The on-line SEA Knowledge Centre, where completed SEAs and general information about SEAs can be found, provides to the public an easy access to SEA resources since being set up in 2005.

## Government Policies and Programmes

8.5 All bureaux and departments must report the environmental implications of their policy and programme proposals when making submissions to official bodies, such as the Policy Committee, Executive Council, Legislative Council's Public Works Subcommittee and Environmental Affairs Panel. The Environmental Protection Department vets these and in 2009 handled nearly 300 funding and policy proposals. Government bodies must also produce sustainability assessments (see also [Sustainable Development](#)).

**See also: [TARGETS](#) - Our Progress and 2010 Aims.**





## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

### 9. Sustainable Development

#### **Mission:**

*To promote sustainable development in Hong Kong.*

9.1 The Government identifies priority sustainability issues with advice from the Council for Sustainable Development, which was established in 2003 to promote sustainable development in the community. The Council has members from the environment, social and business sectors and the Government, and uses an inclusive, stakeholder-led engagement model for initiating dialogue and canvassing public views in its public engagement exercises. In 2009 it conducted a new exercise on "Building Design to Foster a Quality and Sustainable Built Environment" (see also Working with Stakeholders).

9.2 The Council also organises awareness-raising activities for different sectors in the community and advises on the approval of applications to the Sustainable Development Fund (SDF).

9.3 The Government additionally maintains an internal Sustainability Assessment System. All major Government policy and programme initiatives are required to be assessed and the findings must be included in submissions to the Policy Committee and/or the Executive Council, and in public consultation documents, if applicable. In 2009, 139 sustainability assessments were processed.



**Sustainable Urban Regeneration:  
Building an Integrative Community:**  
The SDF funds projects to enhance public understanding of the concept of sustainable urban regeneration from the perspectives of community life, cultural heritage, architectural style and other local factors in building an integrative community.

**See also: TARGETS - Our Progress and 2010 Aims.**





## 4 ENVIRONMENTAL IMPROVEMENTS FOR HONG KONG

### 10. Building Partnerships and Encouraging Compliance

#### **Mission:**

*To serve the community through enforcing pollution control laws to safeguard people's health and welfare, to work with others and continue to build partnerships, and to promote corporate environmental management in both public and private sectors, in pursuance of sustainable development objectives.*

#### **Partnerships**

10.1 The Environmental Protection Department (EPD) promotes compliance and good practices through formal partnerships with four key industries – the construction industry, property management companies, the restaurant trade and vehicle repair workshops – as well as through services targeted at all industries. Partnership-based outreach activities in 2009 included the following:

- 47 seminars and speeches organised for around 5 000 participants.
- 39 meetings held on a variety of environmental initiatives that affect industry: the implementation of mechanical truck covers, the development of a Best Practice Guide for the construction industry, chemical waste controls, and a review of green building classification schemes.
- a ceremony to mark the new tenure of 59 Environmental Ambassadors for the vehicle repair trade, organised with two vehicle repair trade associations and the Hong Kong Institute of Vocational Education (Lee Wai Lee).
- 78 environmental site audits carried out at construction sites and existing buildings for the Development Bureau's Considerate Contractor Site Award Scheme and the District Councils' Quality Building Management Competitions.



## **Compliance Assistance**

10.2 A new Environmental Compliance Promotion Programme was initiated in 2009 to raise awareness and facilitate compliance among a wide range of trades and industries. The EPD also operates the Compliance Assistance Centre, a one-stop shop where individual operators can get information, advice and face-to-face help in applying for EPD-related licences, thus making it easier for them to comply with environmental requirements. About 470 cases are handled each month. To further promote the Centre, a joint seminar was organised in February 2009 with the Environmental Division of the Hong Kong Institution of Engineers and the Chartered Institution of Water and Environmental Management-Hong Kong.

10.3 Information about environmental licences for about 600 trades is also available on the Government's Business Licence Information Service, which provides information on setting up new businesses in Hong Kong. In 2009 it was enhanced with input from the EPD and other Government departments.

## **Corporate Environmental Management**

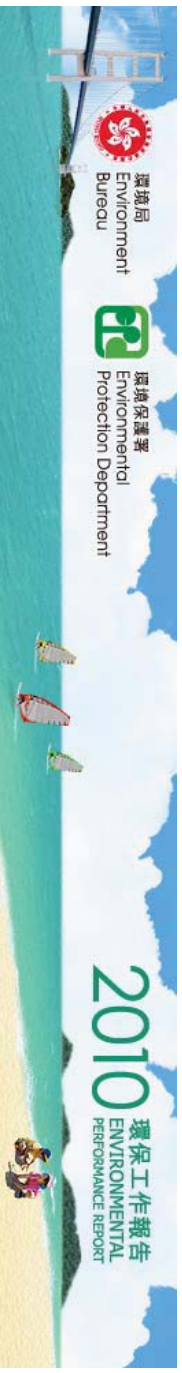
10.4 Environmental audits, environmental management systems and environmental performance reporting are promoted to both the public and private sectors. All Government bureaux and departments have appointed Green Managers and publish annual reports of their environmental performance (see Appendix III). The EPD has also established a website where listed companies in Hong Kong are encouraged to share their environmental reports and thus inspire others to follow suit.

### ***Case Study 7 - Environmental Compliance Promotion Programme***

The aim of this programme is to help operators in all regulated industries achieve environmental compliance or even go beyond compliance. Starting in April 2009, the EPD and the Hong Kong Productivity Council (HKPC) jointly organised a general seminar for all trades, five workshops for the restaurant trade, and one workshop each for the textile & clothing industry, the food & beverage industry, and all regulated trades. Participants were provided with technological and other information on greening their businesses, and listened to operators who had successfully implemented green measures. The feedback on these sessions will be incorporated into a bilingual technical guidebook, to be released in 2010.



**See also: [TARGETS](#) - Our Progress and 2010 Aims.**



## 5 SOCIAL ENGAGEMENT

### A. Working with Stakeholders

#### Consultations

1. Stakeholders are encouraged to offer their views on our policies and programmes and new proposals, through a variety of channels:
  - *Formal meetings:* The Environmental Protection Department (EPD) and the Environment Bureau meet regularly with the Legislative Council and Advisory Council on the Environment.
  - *The EIA process:* Public participation is encouraged early in the planning process for new projects to ensure people's concerns are taken into account before irreversible decisions are made. For EIA policy-related matters, we consult four EIAO Users Liaison Groups (for works-related Government departments, corporations, consultants and contractors).
  - *Public consultations:* Consultations on specific issues may be carried out with the public and/or key stakeholders, such as affected residents and industries. In 2009 we completed public consultations on a review of Air Quality Objectives, a review of Water Quality Objectives, and the implementation of the sludge treatment facilities. We also prepared to consult the public on a new producer responsibility scheme for waste electrical and electronic equipment in 2010.
  - *Council for Sustainable Development:* The Council has a public engagement process to collect public views on key sustainability issues and use these as the basis for making recommendations to the Government regarding the policies and measures concerned. In 2009 it conducted a four-month public engagement on "Building Design to Foster a Quality and Sustainable Built Environment", which received about 1 400 submissions.





## 5 SOCIAL ENGAGEMENT

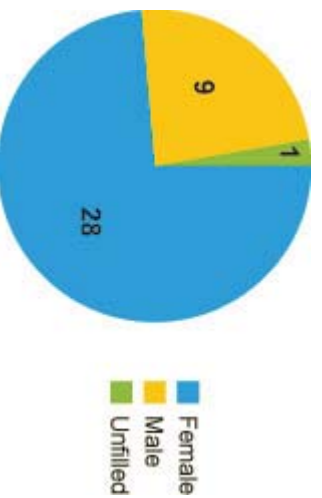
### B. Our Staff

1. Our staff are our most important resource. Their efforts are central to the success of our work. We devote significant effort to train and develop staff, maintain and enhance safety and health, and raise staff awareness, as described below.
2. Good communication with staff is essential to achieve better understanding and co-operation on work-related matters, such as conditions of service and training and productivity. The main channel for this is the Departmental Consultative Committee, which has staff and management representatives, meets every three months, and has representation on the Departmental Environment, Safety and Health Committee (DESHC).

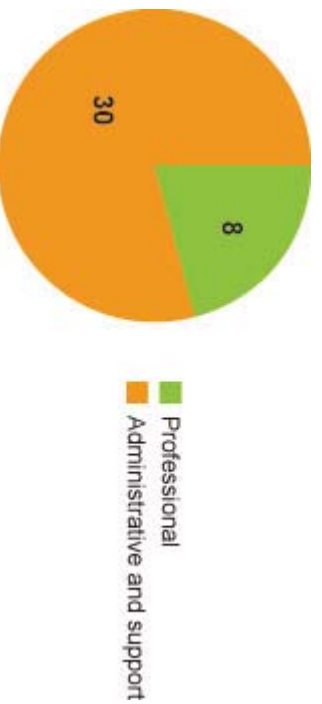
#### Environment Bureau

Establishment\*: 38

Breakdown by gender



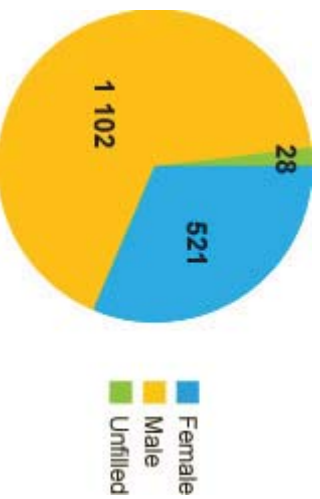
Breakdown by grade



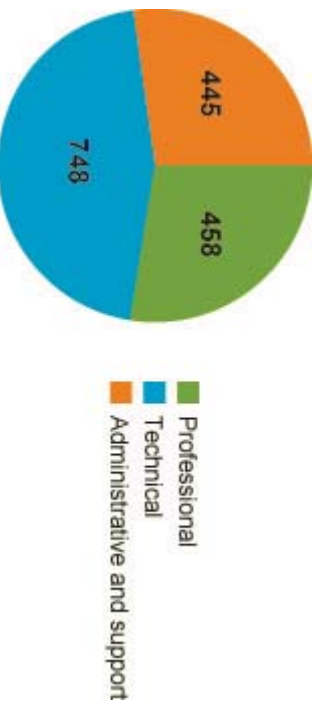
## Environmental Protection Department

Establishment\*: 1 651

Breakdown by gender



Breakdown by grade



*\*As at 31 December 2009*

## Safety and Health

3. The Environmental Protection Department (EPD) was the first Government department certified under the Occupational Safety and Health Council's Continual Improvement Safety Programme Recognition System in 2001, and we have maintained the certification ever since. Safety representatives have been designated in each of our administrative groups, and annual internal safety and health inspections are carried out under the supervision of the DESHC. The DESHC also provides training in safety and health, and in 2009 it ran 82 classes for over 220 staff. Safety reminders and tips are also sent out daily to all staff through our intranet system.

4. In 2009 we had 1.2 occupational injuries per 1 000 employees, which were mainly the result of slipping, tripping and falling, lifting or carrying objects and striking against objects.

## Training and Development

5. Training is provided to staff each year to equip them to support our operations and services, and to help with their career and development. Training programmes are tailored for new recruits, staff in the middle of their careers, and staff with exceptional potential for higher responsibilities.
6. In 2009 staff received an average 3.8 days of training (see table on right). This included 10 in-house workshops for 504 staff on topics related to our policies and programmes, such as climate change, complaint handling, environmental emergency response, enforcement and partnerships. We also sent more than 50 frontline staff on a study course at Jinan University in Guangzhou to familiarise them with the Mainland’s administration, legal and civic service system, national planning, and environmental management. Another 25 staff attended anti-discrimination courses organised by the Civil Service Bureau to strengthen their understanding of human rights issues in the workplace.

Staff Training in 2009	
Grade of staff	Average number of training days
Senior Management	4
Professionals	4.9
Inspectorates	4.7
Other staff	1.3
Average per staff member	3.8

*Note: Calculation based on civil servant staff and non-civil servant staff.*

7. The EPD also contributes to the development of the engineering profession through the Environmental Graduate Training Scheme, through which 45 environmental engineering graduates have received on-the-job training with the EPD.

## Staff Awareness

8. Activities are organised for staff and their families to improve their environmental knowledge and enable them to contribute to the community. These range from taking day-trips to see the Chinese white dolphins and visit farms, to participating in the activities of charitable organisations. We also organise social events, such as dinners, sporting activities and visits to theme parks, to boost morale and social relations among staff. An annual ceremony is also held to recognise staff with long service of 20 years and staff sporting achievements.



*EPD staff and their families enjoy a visit to a farm.*



*Ms Anissa WONG, the Permanent Secretary for the Environment (2nd row, fourth from right), and other senior members of EPD management at the annual departmental presentation ceremony.*

9. Our staff participated in the following community activities in 2009:

- Hong Kong Reef Check – several teams went diving at Wong Chuk Kok Tsui near Double Haven in August 2009.
- Green Power Hike.
- Po Leung Kuk Charity Walk.
- Sowers Action Challenging 12 Hours Charity Marathon.
- Community Chest’s “New Territories Walk - Stonecutters Bridge”.
- Hong Kong Chinese Civil Servants’ Association stationery collection for Wu Xian Primary School in Shaanxi Province, which was affected by an earthquake.



*EPD staff participate in the Sowers Action Challenging 12 Hours Charity Marathon 2009.*



*A representative of the Hong Kong Reef Check 2009 presents a certificate thanking the EPD for its participation.*

**See also: TARGETS - Our Progress and 2010 Aims.**





## 5 SOCIAL ENGAGEMENT

### C. Promoting Community Involvement

1. Community support and participation are essential in our efforts to improve Hong Kong's environment. We promote public involvement through a number of channels.

#### **Funding Community Activities**

2. The Environment and Conservation Fund (ECF), which was established in 1994 to help fund green projects by community groups, boosted support for energy conservation and waste reduction projects in 2009. It provided \$450 million to the Buildings Energy Efficiency Funding Schemes (BEEFS), which offers subsidies to building owners to carry out energy-cum-carbon audits and energy efficiency measures, and earmarked \$50 million to help schools reduce lunch-related waste through on-site meal portioning. The ECF has committed \$400 million to 680 projects since 2008, when its funds were topped up with a \$1 billion injection from the Government. This includes two grants to help two established charitable organisations improve their environmental performance, the Po Leung Kuk (\$31 million) and the Tung Wah Group of Hospitals (\$19.8 million).
3. The Sustainable Development Fund (SDF), established in 2003 to promote sustainable development concepts and practices in the community, has provided \$29.7 million to 33 projects to date. A booklet describing funded projects is distributed annually.



**Dim It: 6.21 Lights Out Event:** This event was held as part of an SDF-funded project to educate people about the severity of light pollution in Hong Kong. The 14-month project was implemented by Friends of the Earth and included a photo competition, city light tours, workshops for teachers and District Councillors and publications on light pollution.

Project area	Number of projects	Funding (\$million)
Energy conservation*	225	51.64
Environmental education and awareness	21	1.78
Minor works at schools and NGOs	236	89.4
On-site meal portioning at schools	2	2.9
Research, technology demonstrations and conferences	15	13.64
Community waste recovery	8	24.22
Source separation of waste	9	0.35
Management Agreements for nature conservation	2	9.63
Public education programme under "Policy Framework" on waste management	8	2.54

\*Including Buildings Energy Efficiency Funding Schemes and funding for energy conservation projects for NGOs.

## Raising Awareness

4. The Government organises several awareness-raising activities each year to promote new environmental initiatives and green behaviour. 2009 World Environment Day, June 5, was celebrated around the theme of low-carbon living. A comic book on the subject was jointly published by the Environmental Protection Department (EPD), the Environmental Campaign Committee and the Environmental Protection Bureau of the Macao SAR Government and distributed for free to the public. Meanwhile, the on-going "I Love Hong Kong! I Love Green!" campaign produced two APIs on nature appreciation and urban greening. Some 18 community exhibitions were also held to promote the Programme on Source Separation of Waste.



Prof TSUI Lap-chee, JP (front centre), chairs an adjudicating panel for the presentations by HKAEE Sectoral Awards finalists.

5. The Hong Kong Awards for Environmental Excellence (HKAAEE) celebrate achievements by organisations in improving their environmental performance. 403 organisations participated in the Sectoral Awards in 2009, which are the competitive part of the Awards and recognise demonstrated outstanding environmental performance. Applications of more than 760 for Environmental Labels and over 60 for Carbon'Less' Certificates were also received. The Environmental Labels are awarded for achieving certain green goals, whereas the Carbon'Less' Certificates are awarded for reducing carbon emissions.
6. Training and awareness talks on environmental protection and sustainable development are also organised for the public and civil servants (see Table 5).

*Table 5 - Community training and awareness outreach in 2009*

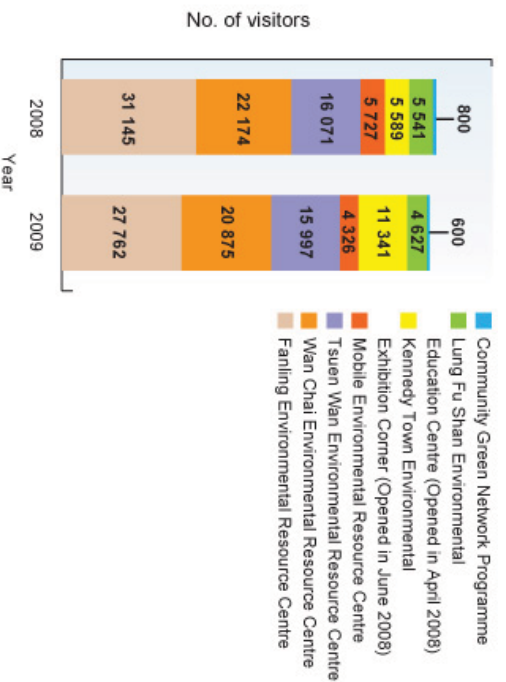
Environmental awareness talks for the community	19 sessions for 960 participants.
Environmental training programme for civil servants	22 talks for 460 civil servants.
Sustainability workshops for civil servants	371 staff participated.
Environmental certificates and badges for the training programme of the Scout Environmental Protection Ambassador Scheme	180 certificates and badges awarded.

### Access to Information

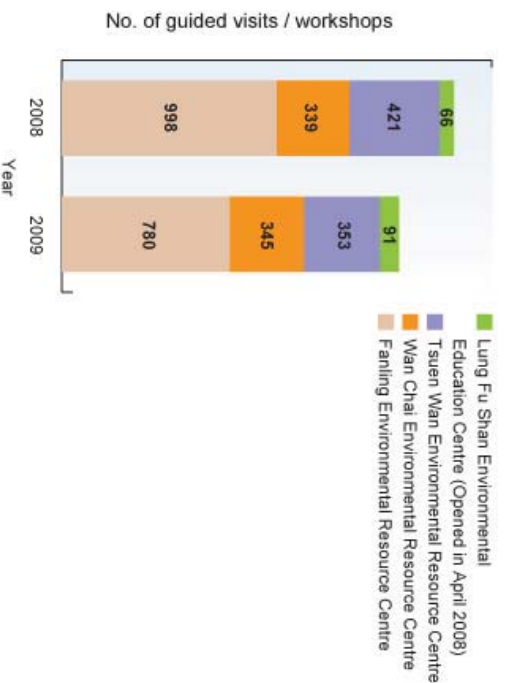
7. The EPD has facilities that provide the public with access to environmental information and activities (see Figure 13). The public and operators can also use the interactive Environmental Protection Information Centre to request specific environmental data and apply, pay for and receive licences and permits electronically.
8. People can also get the latest readings and statistics about Hong Kong's environment in the following areas:
  - Beach water quality
  - Air quality
  - Pearl River Delta regional air quality
  - Prosecutions
  - Environmental impact assessments
  - Solid waste arisings
  - River, stream and marine water quality

Figure 13 - Use of our community-based facilities in 2009\*

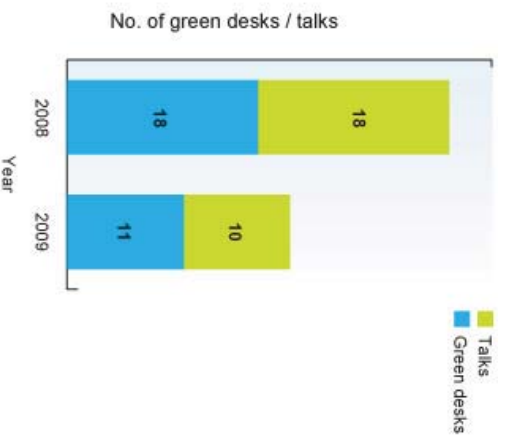
(i) Distribution of visitors



(ii) Distribution of guided visits / workshops



(iii) Green desks available and talks delivered



\* Attendance at some facilities was down in 2009 due to the outbreak of swine flu.

## Schools

9. Our programs aim to equip students and schools with greater environmental knowledge and skills. The Student Environmental Protection Ambassador Scheme promotes green leadership among primary and secondary school students and more than 14 000 students participated in 2009 (down from 18 000 in 2008 due to the swine flu outbreak). The Hong Kong Green School Award encourages pre-schools as well as primary and secondary schools to implement environmental management plans and had 185 participants in 2009. In addition, an environmental education kit for pre-schools was produced under the Little Green Ambassador Scheme, funded by The Dairy Farm Group.

10. Low carbon living is promoted through the School Outreach Programme, which enrolled 41 schools in 2009, and the Sustainable Development School Award Programme. Both are organised by the Council for Sustainable Development.





*Students at a Hong Kong Green School Award Winning school share their green experiences with visitors.*

### ***Case Study 8 - Greening School Lunches***

About 15 000 tonnes of food waste is produced from school lunches each year. To address this problem, the ECF earmarked \$50 million in 2009 to enable schools to portion out meals on campus rather than use pre-packed meals, which usually come in disposable containers. The funding pays for upgrading works and additional facilities so schools can serve meals on site using reusable trays and cutlery, in portions adjusted to the individual needs of students. Schools that are unable to install such facilities can still promote green lunches by encouraging students to bring their own lunches in re-usable containers and asking lunch suppliers to use re-usable boxes.

**See also: TARGETS - Our Progress and 2010 Aims.**

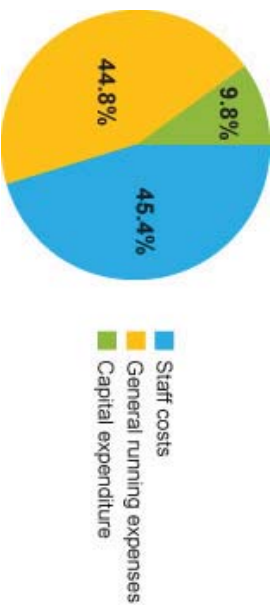
## 6 OUR ECONOMIC IMPACTS

### 1. Investment in Sustainability

1.1 The Government invests billions of dollars in public funds each year to make Hong Kong greener and more sustainable. In 2009 the Environment Bureau (ENB) and Environmental Protection Department (EPD) had a combined departmental expenditure of about \$2.3 billion.

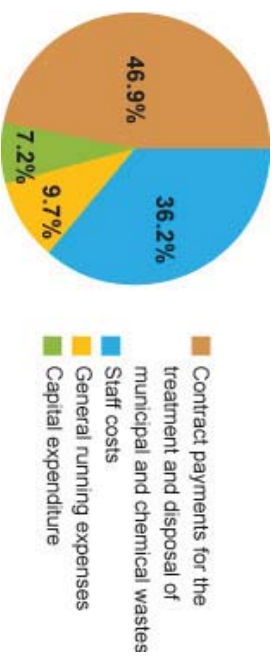
#### ENB

Total expenditure: \$59 million



#### EPD

Total expenditure: \$2.28 billion  
(excluding major infrastructure work)



## 2. Economic Impacts of Our Policies and Programmes

### Energy Policy and the Economy

2.1 The Government is committed to providing Hong Kong with a safe, reliable and efficient supply of energy at a reasonable price. At the same time we want to minimise the environmental impacts of power generation. The 2008 Scheme of Control Agreements signed with the power companies link their returns to their emission performance.

2.2 In 2009 we introduced a bill proposing mandatory implementation of Building Energy Codes to achieve more cost effective use of energy (see Case Study 9).

2.3 The 2009-10 Budget also identified the promotion of electric vehicles as a key measure in promoting a green economy for Hong Kong



Mr Edward YAU, the Secretary for the Environment, tries a new model of electric vehicle developed in Japan.

### ***Polluter Pays Initiatives***

2.4 Sewage charges are applied to various households and businesses in Hong Kong. The rates are gradually being increased over 10 years, starting from 2008, to partially recover the operating cost of the service.

2.5 A 50-cent environmental levy on plastic shopping bags was introduced in 2009 as Hong Kong's first mandatory producer responsibility scheme which has been implemented with good results. A second scheme is being developed for waste electrical and electronic equipment. We are also exploring municipal solid waste charging and a baseline study to collect information on waste generation and waste management practices in different commercial and industrial establishments was underway in 2009.

### ***Financial Incentives***

2.6 Direct incentives are offered to reduce pollution. A \$3.2 billion programme was set up in 2007 to help vehicle operators switch from pre-Euro and Euro I vehicles to less polluting new ones, and it was scheduled to complete in early 2010. The first registration tax for environment-friendly petrol private cars and environment-friendly commercial vehicles has been reduced and in 2009 a waiver on the first registration tax for electric vehicles was extended for five years. More incentives have been scheduled for implementing in 2010, including a profit tax deduction for capital expenditure on environment-friendly vehicles, as well as a new \$540 million incentive programme to help vehicle operators switch from Euro II vehicles to less polluting new vehicles.

2.7 A \$93 million programme was established in 2008 to facilitate the adoption of cleaner production technologies and practices for reducing air pollutant emissions and enhancing energy efficiency. By the end of 2009, the programme had approved 435 funding applications. In his 2009-10 Policy Address, the Chief Executive proposed to revise the coverage of the Cleaner Production Partnership Programme to include effluent reduction and control.

2.8 Financial support is also offered to the wider community to support programmes that promote environmental and sustainable development awareness and initiatives, through the Environment and Conservation Fund and the Sustainable Development Fund.



**Promoting producer responsibility:** Re-usable bags are promoted to the elderly to coincide with the launch of an environmental levy on plastic shopping bags.

### ***Case Study 9 - Buildings Energy Efficiency Funding Schemes and Energy Conservation Projects for NGOs***

Building owners are being offered an incentive to green their premises. The Environment and Conservation Fund (ECF) has allocated \$150 million to subsidise building owners in carrying out energy-cum-carbon audits, and \$300 million to help them conduct energy efficiency projects in communal areas. Funds are granted on a matching basis and about 1 000 applications were received by the end of 2009. The ECF also launched a funding scheme for Energy Conservation Projects for NGOs in October 2009, in which funds are provided for energy-cum-carbon audits, energy improvement works, and educational programmes to promote energy conservation.





## 7 TARGETS - Our Progress and 2010 Aims

We have long-term objectives for each of our programme areas, internal operations and social engagements, and within these we set shorter-term targets. Some of these targets are specific for the year, others are on-going to ensure we meet our ultimate goals.

**Our programme areas, internal operations and social engagements:**

1. Better Air Quality
2. Better Water Quality
3. Environmentally Sound Waste Management
4. Greener Energy Management
5. Nature Conservation
6. Quieter Environment
7. Cross-boundary and International Co-operation
8. Prevention and Mitigation through Environmental Impact Assessment
9. Sustainable Development
10. Building Partnerships and Encouraging Compliance
11. Internal Operations
12. Our Staff
13. Promoting Community Involvement



## 7 TARGETS - Our Progress and 2010 Aims

### 1. Better Air Quality

**Long term objective (1):  
Reduce local air pollution.**

2009 Targets	Progress in 2009	2010 Targets
<p>i. Limit VOC content in vehicle refinishing and vessel paints, adhesives and sealants, and enhance legislative control of ozone depleting substances.</p>	<p><b>Achieved.</b> The VOC content limits for these products were included in an amendment to the Air Pollution Control (Volatile Organic Compounds) Regulation and are scheduled to come into effect in phases from 1 January 2010.</p> <p>The Ozone Layer Protection (Products Containing Scheduled Substances) (Import Banning) Regulation was amended to extend the ban to controlled products containing hydrochlorofluorocarbons (HCFCs) and other scheduled substances in phases from 1 January 2010. Imports of CFC-containing metered dose inhalers and fire extinguishers containing HCFCs and bromochloromethane (BCM) were also banned from 1 January 2010.</p>	<p>i. Review post-2010 emission caps for the power sector.</p> <p>ii. Complete the trial of domestic ferries using ultra low sulphur diesel in mid-2010 and map out a way forward.</p> <p>iii. Tighten the specifications of motor vehicle diesel and unleaded petrol to Euro V standards.</p> <p>iv. Consult stakeholders on the proposed plan to control emissions from non-road mobile sources.</p>
<p>ii. Carry out a trial on domestic ferries using ultra low sulphur diesel.</p>	<p><b>Achieved.</b> The trial commenced in August 2009.</p>	
<p>iii. Work on specifications for biodiesel use in motor vehicles.</p>	<p><b>Achieved.</b> The Air Pollution Control (Motor Vehicle Fuel) (Amendment) Regulation 2009 is scheduled to come into operation on 1 July 2010.</p>	
<p>iv. Draw up a plan to control emissions from non-road mobile sources.</p>	<p><b>Achieved.</b> A plan on controlling these emissions was drawn up.</p>	

**Long term objective (2):  
Review Hong Kong's Air Quality Objectives and develop a long-term air quality management strategy.**

2009 Targets	Progress in 2009	2010 Targets
<p>i. Complete a study of the Air Quality Objectives in the first half of the year and conduct a comprehensive public engagement exercise in the second half of the year to solicit views from the public and stakeholders, with the aim of finalising the new Air Quality Objectives and the long-term management strategy within 2009.</p>	<p><b>Working toward target</b> The study was completed in July 2009 and was followed by a comprehensive public engagement exercise on proposed new Air Quality Objectives and 19 emission control measures. Extra time was needed to complete this and the engagement exercise ended on 30 November 2009. The views gathered are being critically examined to decide on the best way forward.</p>	<p>i. Finalise the proposed new Air Quality Objectives and the long-term air quality management strategy. ii. Submit the final set of recommendations for consideration to the Legislative Council.</p>



## 7 TARGETS - Our Progress and 2010 Aims

### 2. Better Water Quality

<p><b>Long term objective :</b>  <b>Implement HATS Stage 2 to improve the harbour's water quality and sustain the improvement in the long term.</b></p>		
2009 Targets	Progress in 2009	2010 Targets
<p>i. Commence operation of the Advance Disinfection Facilities for HATS.</p> <p>ii. Seek Legislative Council approval for tunnelling works under HATS Stage 2A.</p> <p>iii. Obtain funding to build or upgrade the HATS Stage 2A sewage conveyance system, advance preparation works and odour control facilities in 2009.</p>	<p><b>Achieved.</b>  The Advance Disinfection Facilities were commissioned in December 2009</p> <p><b>Achieved.</b>  The Legislative Council approved funding for these works in June 2009.</p>	<p>i. Obtain funding to implement the remaining works under HATS Stage 2A.</p> <p>ii. Commence a review study on HATS Stage 2B.</p>





## 7 TARGETS - Our Progress and 2010 Aims

### 3. Environmentally Sound Waste Management

<p><b>Long term objective :</b>  <b>Promote waste reduction and recycling, and develop integrated waste management facilities to reduce the environmental burden and landfill space requirement arising from waste disposal.</b></p>		
<b>2009 Targets</b>	<b>Progress in 2009</b>	<b>2010 Targets</b>
<p>i. Complete the EIA study of the first phase of the Organic Waste Treatment Facilities (OWTF) at Siu Ho Wan.</p> <p>ii. Complete the EIA study for the West New Territories Landfill Extensions.</p> <p>iii. Examine the feasibility of introducing a mandatory producer responsibility scheme (PRS) for waste electrical and electronic equipment (WEEE) and consult the public.</p> <p>iv. Implement the Environmental Levy Scheme on Plastic Shopping Bags.</p> <p>v. Extend the Programme on Source Separation of Domestic Waste to 1 140 housing estates / buildings.</p>	<p><b>Achieved.</b>  The EIA study of OWTF Phase I was completed and the report was available for public inspection in December 2009.</p> <p><b>Achieved.</b>  The EIA Report was approved in November 2009.</p> <p><b>Working toward target.</b>  The public consultation document and related publicity materials on a new PRS for WEEE was prepared and produced.</p> <p><b>Achieved.</b>  The Environmental Levy Scheme on Plastic Shopping Bags commenced in July 2009.</p> <p><b>Target exceeded.</b>  By the end of 2009, 1 256 housing estates / buildings had joined the Programme.</p>	<p>i. Commence construction of the Sludge Treatment Facilities.</p> <p>ii. Commission a consultancy study for procurement of the NENT Landfill Extension contract.</p> <p>iii. Consult the public on a proposed mandatory PRS for waste electrical and electronic equipment (WEEE).</p> <p>iv. Continue to implement and monitor the Environmental Levy Scheme on Plastic Shopping Bags.</p> <p>v. Continue to extend the Programme on Source Separation of Domestic Waste to 1 360 housing estates / buildings.</p> <p>vi. Submit the EIA report for Integrated Waste Management Facilities Phase I to EIAO Authority.</p>



## 7 TARGETS - Our Progress and 2010 Aims

### 4. Greener Energy Management

**Long term objective:**  
**Formulate policies and implement measures to promote energy efficiency and conservation, and the development of renewable energy in Hong Kong.**

2009 Targets	Progress in 2009	2010 Targets
<p>i. Table two amendment regulations to the Energy Efficiency (Labelling of Products) Ordinance in the Legislative Council for the second phase of the mandatory Energy Efficiency Labelling Scheme.</p>	<p><b>Achieved.</b>            The two relevant amendment regulations were passed by the Legislative Council on 21 October 2009 and 6 January 2010 respectively.</p>	<p>i. Take forward the legislative process for mandatory implementation of the Building Energy Codes.</p> <p>ii. Prepare for full implementation of the second phase of the mandatory energy efficiency labelling scheme in September 2011.</p>
<p>ii. Introduce a bill to the Legislative Council on the mandatory implementation of the Building Energy Codes.</p>	<p><b>Achieved.</b>            The Buildings Energy Efficiency Bill was introduced into the Legislative Council in December 2009.</p>	<p>iii. Launch a public consultation on restricting the sale of energy-inefficient incandescent light bulbs and formulate the way forward.</p>
<p>iii. Roll out the Buildings Energy Efficiency Funding Schemes.</p>	<p><b>Achieved.</b>            The Buildings Energy Efficiency Funding Schemes have been successfully launched.</p>	<p>iv. Commence construction works for the District Cooling System in the latter half of the year.</p>
<p>iv. Conduct studies on phasing out incandescent light bulbs.</p>	<p><b>Achieved.</b>            A study on phasing out incandescent light bulbs and whether to restrict their sale was completed on schedule.</p>	
<p>v. Make preparations for the implementation of a District Cooling System in the Kai Tak Development.</p>	<p><b>Achieved.</b>            The Finance Committee approved funding for the project in June 2009.</p>	



## 7 TARGETS - Our Progress and 2010 Aims

### 5. Nature Conservation

<p><b>Long term objective :</b>  <b>Formulate policies and implement measures to regulate, protect and manage natural resources that are important for the conservation of the biological diversity of Hong Kong.</b></p>		
<p><b>2009 Targets</b></p>	<p><b>Progress in 2009</b></p>	<p><b>2010 Targets</b></p>
<p>i. Continue implementing the New Nature Conservation Policy, in particular taking forward the Sha Lo Tung project.</p>	<p><b>Achieved.</b>                  Two Management Agreement projects, at Fung Yuen and Long Valley, that have been under active conservation by NGOs and received additional funding of \$9.6 million from the Environment and Conservation Fund in December 2009 to continue for another three years and two years, respectively. The Public-Private Partnership - Pilot Scheme proposed for Sha Lo Tung is being adjusted after consultation with the Advisory Council on the Environment. The project proponent will submit the revised plans and an environmental impact assessment report to the Government shortly.</p>	<p>i. Continue implementing the New Nature Conservation Policy, in particular the Management Agreement and Public-Private Partnership - Pilot Scheme.</p> <p>ii. Oversee implementation of the Genetically Modified Organisms (Control of Release) Bill.</p> <p>iii. Amend the Schedule of Protection of Endangered Species of Animals and Plants Ordinance so as to meet international obligations under the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora.</p>
<p>ii. Set up a geopark in Hong Kong and aim to apply for its listing as a national geopark by the end of 2009.</p>	<p><b>Achieved.</b>                  The Hong Kong National Geopark acquired national geopark status in October 2009 and was officially opened in November 2009.</p>	
<p>iii. Introduce a legislative proposal to the Legislative Council to extend the Convention on Biological Diversity and Cartagena Protocol on Biosafety to Hong Kong.</p>	<p><b>Achieved.</b>                  The Genetically Modified Organisms (Control of Release) Bill was submitted to the Legislative Council for scrutiny in May 2009.</p>	



## 7 TARGETS - Our Progress and 2010 Aims

### 6. Quieter Environment

**Long term objective :**  
**Reduce and minimise road traffic noise through implementation of noise abatement measures.**

2009 Targets	Progress in 2009	2010 Targets
<p>i. Further develop and continue implementation of the proposed noise mitigation measures (measured in terms of progress made, including studies that have commenced).</p>	<p><b>Achieved.</b>            We continued to explore new low-noise road surface materials and continued a study to improve flyover joints.</p>	<p>i. Continue implementation of noise barrier retrofitting work for 36 identified road sections and a trial of low noise resurfacing work on local road sections.</p>
<p>ii. Continue developing and implementing noise mitigation measures, including noise barrier retrofitting work on 36 road sections and trials of low noise road surfaces.</p>	<p><b>Achieved.</b>            Work to install noise barriers was completed on three road sections, continued on seven sections and began on three other sections. Six more road sections were re-surfaced.</p>	<p>ii. Arrange to lay rubberised asphalt on some local roads to test its suitability in Hong Kong as a low-noise road surface.</p>





## 7 TARGETS - Our Progress and 2010 Aims

### 7. Cross-boundary and International Co-operation

<p><b>Long term objective :</b>  <b>Contribute to regional and global efforts to improve the quality of the living environment.</b></p>		
2009 Targets	Progress in 2009	2010 Targets
<p>i. Continue the consultancy study on climate change in Hong Kong.</p>	<p><b>Achieved.</b>            The study is close to completion and will be finalised within 2010. The consultant had identified key areas of vulnerability for Hong Kong, evaluated Hong Kong's adaptive capacity, and also evaluated different mitigation options to further reduce our greenhouse gas emissions.</p>	<p>i. Complete the consultancy study on climate change in Hong Kong.</p>
<p>ii. Continue implementing the Cleaner Production Partnership Programme (measured by number of participants at awareness promotion activities and number of funding applications approved).</p>	<p><b>Achieved.</b>            More than 110 awareness promotion activities were organised for more than 14 000 participants since the programme began in April 2008. Some 435 funding applications have been approved for Hong Kong-owned factories to conduct on-site assessments and demonstration and verification projects.</p>	<p>ii. Continue implementing the Cleaner Production Partnership Programme (measured by number of participants at awareness promotion activities and number of funding applications approved).</p>
		<p>iii. Continue the joint study with Guangdong on the post-2010 arrangement for air pollutant emission reduction in the Pearl River Delta region (measured in term of progress).</p>



## 7 TARGETS - Our Progress and 2010 Aims

### 8. Prevention and Mitigation through Environmental Impact Assessment

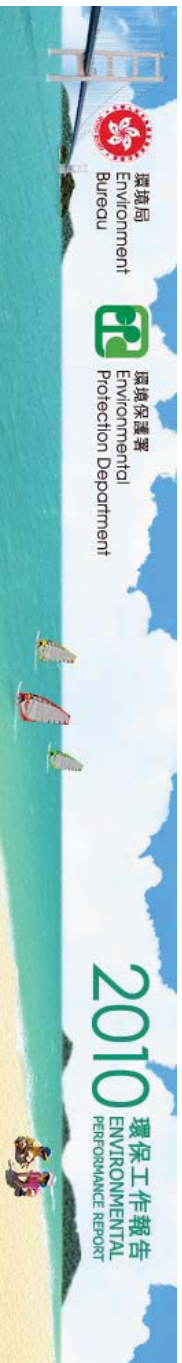
<p><b>Long term objective (1) :</b>  <b>Promote Strategic Environmental Assessment (SEA) to the public locally and internationally by providing easy access to the SEA Manual and related information.</b></p>		
<p><b>2009 Targets</b></p>		
<p><b>Progress in 2009</b></p>	<p><b>Achieved.</b>            Approximately 356 000 visits to the web-based SEA Knowledge Centre were recorded.</p>	<p><b>2010 Targets</b></p>
<p>i. Disseminate information and knowledge on SEA through the web-based SEA Knowledge Centre (measured by the number of visits to the site).</p>		<p>i. Add the latest SEA resources from around the world to our site, mainly by hyperlinks, including SEA regulations, SEA guidance documents, SEA reports, SEA reference materials, etc.</p>
<p><b>Long term objective (2) :</b>  <b>Help the public to understand Environmental Impact Assessment (EIA) findings.</b></p>		
<p><b>2009 Targets</b></p>		
<p><b>Progress in 2009</b></p>	<p><b>Achieved.</b>            The 3-D EIA public engagement tool has been required in the EIA study briefs of 41 major development projects. Eight EIA studies using the 3-D tool were made available for public inspection in 2009. A library was also established of 3-D EIA visualisations of the major findings of EIA reports.</p>	<p><b>2010 Targets</b></p>
<p>i. Gather and disseminate knowledge on the application of the 3-D EIA public engagement tool for easy reference by EIA practitioners and the public (measured by resources added to the 3-D EIA library).</p>		<p>i. Consult stakeholders on the revision of the guidance notes for the Environmental Impact Assessment Ordinance.</p> <p>ii. Continue gathering and disseminating knowledge on the application of the 3-D EIA public engagement tool for easy reference by EIA practitioners and the public (measured by resources added to the 3-D EIA library).</p>
<p>ii. Conduct a review of the guidance notes for the Environmental Impact Assessment Ordinance.</p>	<p><b>Achieved.</b>            The review was carried out. Consultations will start in 2010.</p>	



## 7 TARGETS - Our Progress and 2010 Aims

### 9. Sustainable Development

<b>Long term objective :</b> <b>Promote sustainable development (SD) in Hong Kong.</b>		
<b>2009 Targets</b>	<b>Progress in 2009</b>	<b>2010 Targets</b>
<p>i. Conduct a new public engagement process on building design to foster a quality and sustainable built environment.</p>	<p><b>Achieved.</b> The public engagement was launched on 20 June and ended on 31 October 2009.</p>	<p>i. Submit a report to the Government on the Council for Sustainable Development's public engagement on "Building Design to Foster a Quality and Sustainable Built Environment".</p>



## 7 TARGETS - Our Progress and 2010 Aims

### 10. Building Partnerships and Encouraging Compliance

<p><b>Long term objective (1) :</b>  <b>Enhance environmental awareness among the regulated trades and industries, and reinforce our partnership programmes for the restaurant trade and the vehicle repair workshops trade.</b></p>		
<p><b>2009 Targets</b></p>	<p><b>Progress in 2009</b></p>	<p><b>2010 Targets</b></p>
<p>i. Implement the Environmental Compliance Promotion Programme to promote environmental awareness and facilitate environmental compliance by the regulated trades and industries.</p>	<p><b>Achieved.</b>            EPD organised a generic seminar for all regulated trades, five thematic workshops for the restaurant trade, and two technical workshops for the textile &amp; clothing industry and food &amp; beverage industry.</p>	<p>i. Develop a technical guidebook for specific trade sectors to facilitate environmental compliance and provide technological solutions, good practices, etc.</p>
<p>ii. Appoint Environmental Ambassadors for the vehicle repair workshops trade.</p>	<p><b>Achieved.</b>            59 Environmental Ambassadors were officially appointed in July 2009.</p>	<p>ii. Organise a seminar to enhance the environmental competency of practitioners in the vehicle repair workshops trade in view of recent legislative controls and new technologies.</p>
<p>iii. Promote the Vehicle Repair Workshops Programme at a seminar.</p>	<p><b>Achieved.</b>            EPD organised an environmental seminar with two vehicle repair workshops trade associations and the Hong Kong Institute of Vocational Education (Lee Wai Lee) that was attended by 353 trade practitioners and other stakeholders.</p>	



**Long term objective (2):  
Enhance the environmental competency of the construction industry and the property management sector. [Effective from 2010]**

2009 Targets	Progress in 2009	2010 Targets
<p>Not applicable – effective from 2010.</p>		<ul style="list-style-type: none"> <li>i. Collaborate with training institutions to offer more courses for environmental officers to meet demand from the construction industry.</li> <li>ii. Incorporate environmental protection content into existing training courses for construction personnel.</li> <li>iii. Collaborate with renovators' associations to prevent fly-tipping and promote good environmental practices when conducting renovation works.</li> <li>iv. Collaborate with training institutions to incorporate environmental protection content into existing courses for property management personnel.</li> <li>v. Develop and promulgate training material to promote and educate frontline property managers on good environmental practices in managing refuse rooms.</li> </ul>

## 7 TARGETS - Our Progress and 2010 Aims

### 11. Internal Operations

<p><b>Long term objective (1) :</b>  <b>Pursue continual improvement in the environmental performance of our internal operations by implementing an effective management system.</b></p>		
<p><b>2009 Targets</b></p>	<p><b>Progress in 2009</b></p>	<p><b>2010 Targets</b></p>
<p>i. Continue to monitor the potentially significant environmental aspects of internal activities.</p> <p>ii. The Energy and Emissions Management Team (EEMT) to identify and implement energy / emissions reduction measures.</p>	<p><b>Achieved.</b>  The EEMT, formed in 2007, has identified and implemented energy / emissions reduction measures, and monitored implementation of these measures.</p>	<p>i. Continue to monitor the potentially significant environmental aspects of our internal activities.</p> <p>ii. Continue to identify and implement energy / emissions reduction measures through the EEMT.</p>
<p><b>Long term objective (2) :</b>  <b>Demonstrate efficiency and commitment to environmental conservation by reducing expenditure and resources consumption.</b></p>		
<p><b>2009 Targets</b></p>	<p><b>Progress in 2009</b></p>	<p><b>2010 Targets</b></p>
<p>i. Continue paper saving initiatives to keep paper consumption at a minimum.</p> <p>ii. Continue energy saving measures in conjunction with the energy audit. Progress measured in terms of electricity consumption in offices.</p> <p>iii. Monitor consumption and encourage recycling.</p> <p>iv. Continue Indoor Air Quality certification work and arrange renewal as necessary.</p>	<p><b>Achieved.</b>  Paper consumption fell by 0.4 per cent over 2008.</p> <p><b>Target exceeded.</b>  Electricity consumption was reduced by 1.8 per cent over 2008, exceeding the consumption reduction target of 1 per cent for 2009.</p> <p><b>Achieved.</b>  More used toner cartridges of printers and used toner cartridges of photocopiers were recycled.</p> <p><b>Achieved.</b></p>	<p>i. Continue paper saving initiatives to keep paper consumption to a minimum.</p> <p>ii. Continue energy saving measures in conjunction with the energy audit.</p> <p>iii. Monitor consumption and encourage recycling.</p> <p>iv. Continue Indoor Air Quality certification work and arrange renewal as necessary.</p>

**Long term objective (3) :**  
**Ensure treatment and disposal of wastes at our facilities are managed in the most environmentally acceptable manner.**

2009 Targets	Progress in 2009	2010 Targets
i. Continue close supervision of our waste facilities contractors, aiming at full compliance with both legal and contractual environmental requirements.	<b>Achieved.</b> Of 31 024 environmental monitoring measurements carried out at strategic landfills and refuse transfer stations, 30 990 complied with contractual requirements. No non-compliance of legal environmental requirements was detected.	i. Continue close supervision of our waste facilities contractors, aiming at full compliance with both legal and contractual environmental requirements.

## 7 TARGETS - Our Progress and 2010 Aims

### 12. Our Staff

<b>Long term objective :</b> <b>Promote staff environmental awareness and encourage participation.</b>		
2009 Targets	Progress in 2009	2010 Targets
i. Arrange training sessions / seminars and awareness campaigns for staff.	<b>Achieved.</b> 87 staff attended twelve training sessions on various green management topics.	i. Continue encouraging staff to attend training sessions / seminars and awareness campaigns.

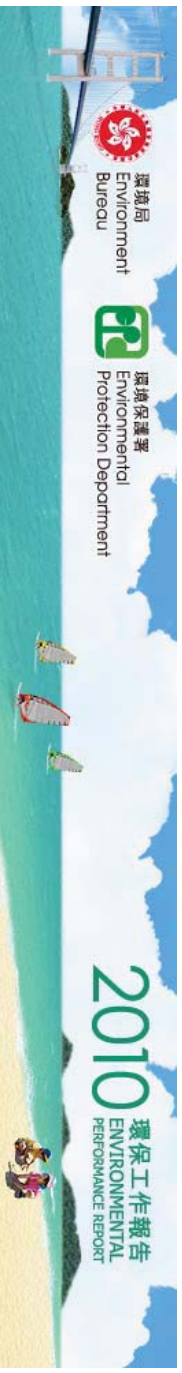


## 7 TARGETS - Our Progress and 2010 Aims

### 13. Promoting Community Involvement

<p><b>Long term objective :</b>  <b>Encourage the public to switch to a greener lifestyle.</b></p>		
<p><b>2009 Targets</b></p>	<p><b>Progress in 2009</b></p>	<p><b>2010 Targets</b></p>
<p>i. Continue to promote Government initiatives on environmental protection.</p>	<p><b>Achieved.</b>            18 roving exhibitions were held at shopping malls and estates to promote "Waste Separation at Source", attracting 12 000 participants.            A comic book on "Low Carbon Living" was published to promote this concept to the public.</p>	<p>i. Promote Government initiatives on environmental protection.</p> <p>ii. Enhance public involvement and participation in environmental protection.</p>
<p>ii. Continue to enhance public involvement and participation in environmental protection.</p>	<p><b>Achieved.</b>            Numerous on-going programmes such as competitions, award schemes and guided tours were held in 2009 with the participation of tens of thousands of people and hundreds of organisations.</p>	





## APPENDIX I - Environmental and Energy Policy

### Vision

Our vision is of a Hong Kong

- which enjoys an environment that is both healthy and pleasant;
- in which the community places a premium on sustaining such an environment for both themselves and future generations, and pursues sustainable development; and
- in which the community enjoys a reliable and safe energy supply at reasonable prices, while improving energy efficiency, promoting energy conservation and minimising the environmental impacts from the production and use of energy.

To realise our vision, we will continue to strengthen our ability to meet environmental sustainability goals. We will formulate policies and implement programmes to improve and safeguard the environment while contributing proactively to strategic decision-making in the Government that will have an impact on the environment. We are committed to ensuring that all policies, services and programmes offered by the Environment Bureau (ENB) and the Environmental Protection Department (EPD), as well as our own internal operations, are developed and conducted in an environmentally responsible manner.

To realise our vision on the energy side, we will continue to monitor the operations of the two power companies and the towngas supply company through the established monitoring arrangements. We will strive to achieve energy efficiency and conservation through public education, promotion, legislation and implementation of various programmes. We will also promote competition and transparency in the local fuel market.

In pursuance of these goals, the ENB and EPD have adopted the following principles:

## **Compliance**

We aim to establish an effective legislative and an efficient control framework to safeguard the health and welfare of the community from any adverse environmental, conservation and energy-related issues. We will facilitate businesses to comply with environmental legislation through educational and promotional programmes, and encourage our business partners to further enhance their performance by adopting green practices with a view to going beyond compliance.

We will seek to provide moral leadership by not only complying with the letter of the law, but the spirit of all applicable legislation, standards and regulations, as well as our internal guidelines and procedures, in all our operations within the ENB and EPD. We will endeavour to surpass them whenever possible.

## **Pollution Prevention**

We aim to pre-empt environmental problems associated with development projects, plans and policies by applying environmental impact assessment in the planning process and seeking opportunities to improve the environmental quality of Hong Kong.

We will implement ISO14001 environmental management systems to improve continually the environmental performance of our major facilities. We will avoid, reduce and control environmental pollution arising from our day-to-day working practices. We will require our contractors to adopt and implement sound environmental management systems and pollution control measures, and actively encourage businesses and other organisations in Hong Kong to adopt similar systems and measures. We will help to reduce air emissions by implementing plans and measures that are relevant to our operations to meet the commitments of the Clean Air Charter.

## **Adequate Infrastructure for Waste Treatment**

We will provide first-class physical infrastructure for the treatment and disposal of waste and wastewaters in line with international best practice.

## **Response to Environmental Incidents**

We will implement an emergency response system for handling environmental incidents and we will work closely with other Government departments in responding quickly to minimise the damage to the environment.

## **Minimisation of Consumption**

We aim to plan and provide convenient and cost-effective waste management facilities, as well as promote a sustainable approach to waste management in Hong Kong, in which we consume less, produce less waste, and reuse or recover value from waste.

We will exercise the principles of Reduce, Reuse, Recycle and Responsibility in the consumption of materials and seek continual improvement in the efficient use of natural resources and energy in all our operations.

## **Energy Supply and Efficiency**

We will continue to oversee the reliability of power supply and monitor the performance of the power companies. We will also actively promote energy efficiency and energy saving in the planning, design, production, use and maintenance of products, buildings and services. We aim to integrate energy conservation and efficiency considerations into policies, strategies, plans, programmes, implementation and operations in both the public and private sectors. We will actively promote partnership and community support, facilitate suitable research and development, and raise the awareness of the community on energy efficiency and conservation matters.

## **Sustainable Development**

We will actively promote and contribute to Government-wide policies and programmes that support sound environmental management and sustainable development. We will use and promote evolving scientific and technological systems, work with others and continue to build new partnerships in the pursuance of sustainable development objectives.

## **Communication and Partnership**

We aim to promote community awareness of the environment, energy and sustainable development through campaigns, publicity, education and action programmes. We strive to partner with all relevant stakeholders in promotion and public education activities, with a view to harnessing the community's support for, and contribution to, achieving our desired goals for the environment, energy efficiency and sustainable development.

We will also publicise to the community our policies on the environment, energy and sustainable development and report annually on our performance. We will ensure that all our staff are aware of our policies and that they are able to provide detailed information about our policies and initiatives to stakeholders in their particular areas of concern.

## **Training**

We will ensure through appropriate training and professional development, that every member of our staff has the knowledge and competency to assume his/her responsibilities and to participate constructively in relevant activities.

## **Management Review**

The Management will review this policy as well as our objectives and targets on the environment, energy and sustainable development, with regard to changing internal and external factors, and seek continual improvement in our performance.



## APPENDIX II - ENB / EPD Offices and Facilities

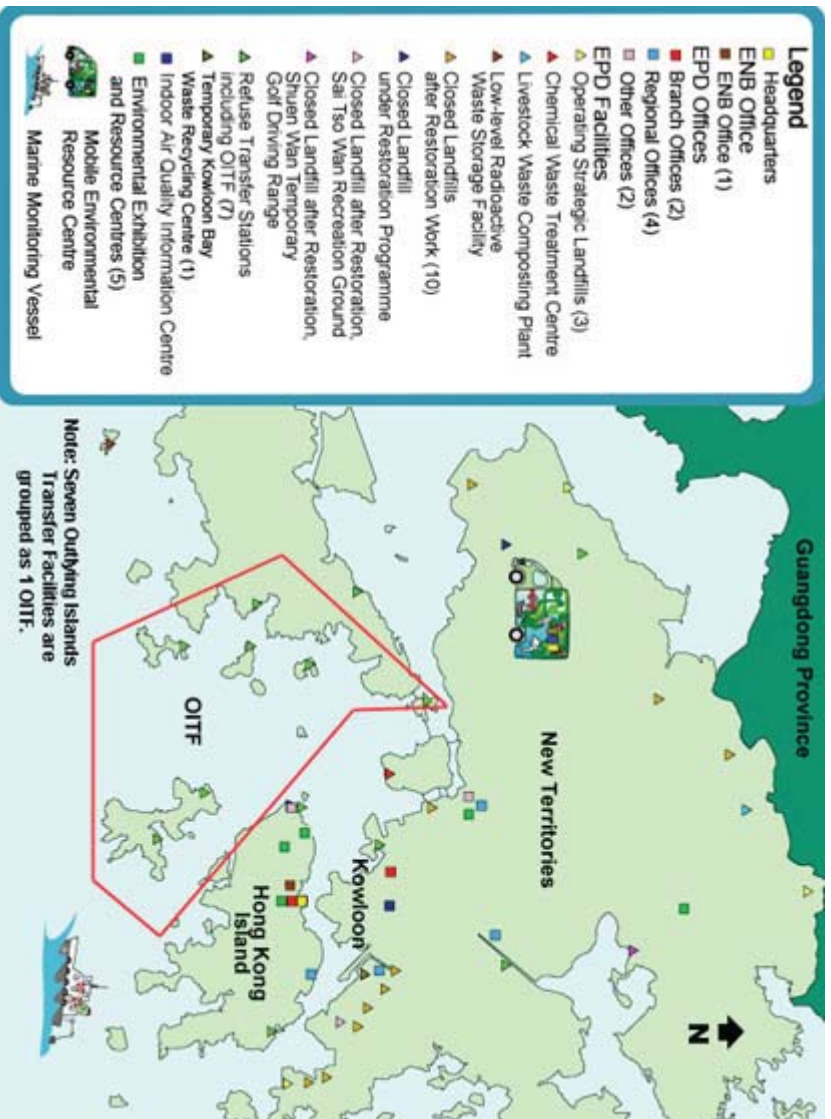


Photo of some Offices and Facilities:



ENB and EPD Headquarters



ENB Office in Murray Building



Indoor Air Quality Information Centre



Regional Office (North)



EIAO Register Office



Lung Fu Shan Environmental Education Centre



Mobile Environmental Resource Centre



Marine Monitoring Vessel



Roadside Air Monitoring Station at Central



West New Territories Landfill



North East New Territories Landfill



South East New Territories Landfill



Island West Refuse Transfer Station



Low-level Radioactive Waste Storage Facility, Siu A Chau



Chemical Waste Treatment Centre, Tsing Yi

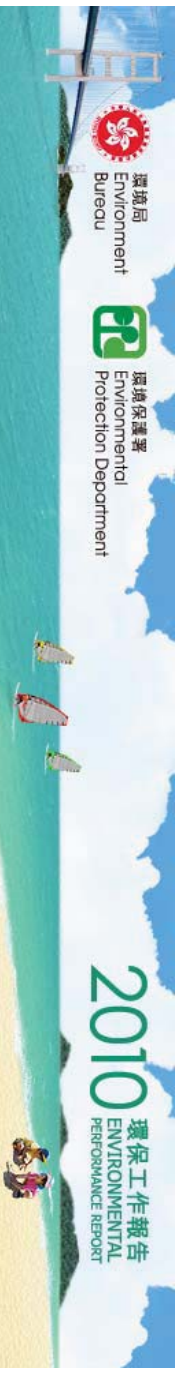


## **APPENDIX III - Environmental Performance Reports of Government Bureaux/Departments and Agencies**

Reference can be made to environmental performance reports of government bureaux/departments and agencies through the hyperlink below:

[http://www.epd.gov.hk/epd/english/how\\_help/tools\\_epr/collect\\_1.html](http://www.epd.gov.hk/epd/english/how_help/tools_epr/collect_1.html)





## VERIFICATION STATEMENT



Hong Kong Productivity Council (HKPC) was commissioned by the Environmental Protection Department (EPD) to verify its Environmental Performance Report 2010 (EPR 2010). The EPR 2010 covers environmental, social and economic performance of the Environment Bureau (ENB) and EPD during the calendar year of 2009.

### Objectives

The objective of HKPC's verification work is to provide a third-party assurance on the completeness, accuracy and reliability of information presented in the EPR 2010 and more specifically, to:

- assess whether the scope of the EPR 2010 covers all significant aspects in relation to ENB's and EPD's performance;
- evaluate whether the selected statements and data presented in the EPR 2010 are accurate;
- review whether the data collection and information management mechanisms used to prepare the EPR 2010 are reliable; and
- provide recommendations for future reports.

### Approach

Our verification procedures<sup>[1]</sup> comprised a comprehensive review of the EPR 2010, followed by the selection of a representative sample of statements and data for verification. Through a series of interviews with representatives during 15 July – 5 August 2010, we reviewed and examined the data collation systems and supporting materials relating to the selected statements and data as well as their relevant management practices and initiatives.

### Results

#### Report Completeness

The EPR 2010 presents a structured and comprehensive overview of the environmental performance with respect to ENB's and EPD's key services, activities and initiatives in terms of their own operations as well as the overall situation in Hong Kong. The Report also addresses stakeholders' engagement process and economic impacts in the local context in relation to ENB's and EPD's policies and initiatives.



## **Report Accuracy and Reliability**

The selected sample of statements and data examined during the verification process reflect an accurate and fair account of ENB's and EPD's environmental, social and economic performance. The data collation and information management systems adopted are generally considered to be effective, reliable and organized. The Report also links up with appropriate websites for readily available information to further enhance the report reliability.

### **Recommendations for Future Reports**

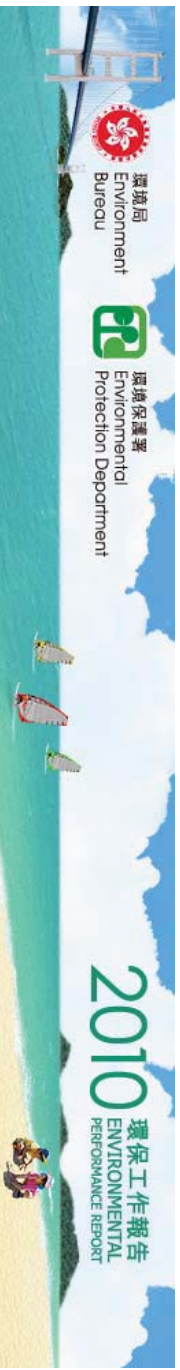
We encourage ENB and EPD to consider the inclusion of the following aspects in the preparation of their future reports:

- To provide quantitative results for the energy and carbon reduction initiatives in response to the global efforts in combating climate change;
- To engage stakeholders in the reporting process to enhance the report content and to appeal readers' interests; and
- To continuously include appropriate economic and social performance indicators such as staff issues with reference to the Global Reporting Initiative G3 Guidelines.



K L Tsang, JP  
General Manager  
Environmental Management Division  
Hong Kong Productivity Council

<sup>[1]</sup>Our verification work did not cover data and information which have already been published in the ENB's and EPD's websites as well as other publicly accessible websites.



## FEEDBACK

We value your feedback on our Environmental Performance Report 2010 to help us make improvements in the coming year. You may complete this form and send it to us by clicking the "Submit" button below.

Comments may also be sent by email to: [epr@epd.gov.hk](mailto:epr@epd.gov.hk). Thank you in advance for your views.



- How do you rate the report in terms of the following? (Please complete at least 1 item)
 

	Good	Average	Poor	Other comment
a) Readability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input style="width: 100px;" type="text"/>
b) Charts and tables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input style="width: 100px;" type="text"/>
c) Understanding our environmental performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input style="width: 100px;" type="text"/>
  
- Which section(s) of the report would you like to have more information on? (You may leave this section blank or mark more than one box)

### Our Profile

- Organisation and Governance
- Vision and Strategy

### Environmental Impacts of Our Operations

- Environmental Improvements For Hong Kong

### Social Engagement

- Working with Stakeholders
- Our Staff
- Promoting Community Involvement

### Our Economic Impacts

- TARGETS - Our Progress and 2010 Aims

3. Which of the following are you most interested in? (You may leave this section blank or mark more than one box)

**Our Operations**

- Minimising Energy Consumption
- Waste Reduction
- Green Procurement

**Policies and Programmes for Environmental Improvements**

- Better Air Quality
- Better Water Quality
- Environmentally Sound Waste Management
- Greener Energy Management
- Nature Conservation
- Quieter Environment
- Cross-boundary and International Co-operation
- Prevention and Mitigation Through Environmental Assessment
- Sustainable Development
- Building Partnerships and Encouraging Compliance

4. Which of the following would you like to see more of ? (You may leave it blank or mark more than one box)

- Statistical information
- Illustrations
- Hyperlinks to other information

5. Other comments and suggestions