

**First Sustainable Development (SD) Strategy for Hong Kong
Third Annual Implementation Progress Report (March 2008)**

I. Solid Waste Management

First SD Strategy for Hong Kong	Implementation Progress
<p>A. <u>Strategic Objectives</u></p> <p>(1) As a community, to make every effort to avoid generating waste and to reduce the amount of solid waste that needs final disposal, by adopting measures to facilitate the separation of discarded material, the recovery and reuse of material and the recycling of non-reusable material.</p> <p>(2) To apply the “user pays” principle as a means of reducing volumes of waste for disposal.</p> <p>(3) To adopt advanced technologies and practices to treat waste requiring final disposal and to create new economic opportunities.</p>	<p>(a) The Environmental Protection Department (EPD) published “A Policy Framework for the Management of Municipal Solid Waste (MSW) (Policy Framework)”, which sets out a comprehensive strategy with clear targets and timetables for MSW management in Hong Kong for the ten years from 2005 to 2014.</p> <p>(b) The Policy Framework embraces the fundamentals of sustainable waste management strategy, the “user pays” and “producer responsibility” principles and proposes tools and measures to create economic incentives to avoid, reduce, reuse and recycle waste. It also proposes to develop state-of-the-art Integrated Waste Management Facilities (IWMF) with thermal treatment as the core technology for final waste treatment before disposal at our landfills.</p>

I. Solid Waste Management

First SD Strategy for Hong Kong	Implementation Progress
<p>B. <u>Targets</u></p> <p>We will review the targets recommended by the Council for SD, namely –</p> <ol style="list-style-type: none"> (1) To reduce the amount of municipal solid waste generated in Hong Kong by 1% per annum up to the year 2014, based on 2003 levels. (2) To increase the recovery rate of municipal solid waste to 45% by 2009 and 50% by 2014. (3) To reduce the total municipal solid waste disposed of in landfills to less than 25% by 2014. 	<p>EPD has adopted the targets recommended by the Council for SD and included them in the Policy Framework.</p> <ol style="list-style-type: none"> (a) Compared to the previous year, the amount of MSW disposed of at our landfills increased by 1.6% against an economic growth of 6.7% over the same period. There was an impressive increase in the recovery rate of domestic waste from 16% in 2005 to 23% in 2007. With the increase in domestic waste recovery, the overall recovery of MSW also increased from 43% in 2005 to 45% in 2007. (b) Yet, despite efforts in waste reduction, the amount of MSW generated remains on an increasing trend, which is likely to be the result of robust growth in commercial, industrial and tourism-related activities in 2007, which resulted in about 8.4% increase in commercial and industrial waste generation. (c) EPD will press ahead with the development of IWWMF in order to achieve the Policy Framework's target of reducing the total MSW landfilled to less than 25%.
<p>C. <u>Plan of Action</u></p> <ol style="list-style-type: none"> (1) To embark on educational programmes to reduce waste generation. 	<ol style="list-style-type: none"> (a) EPD, together with the Environmental Campaign Committee, will continue to organize community-based and school-based waste reduction activities and to publicize waste reduction messages through the mass media. As an on-going measure, general awareness of waste reduction is promoted through the local media, including television, radio stations and local newspapers, as well as production of

I. Solid Waste Management

First SD Strategy for Hong Kong	Implementation Progress
	<p>APIs (Announcements of Public Interest).</p> <p>(b) The Environment and Conservation Fund (ECF) has agreed to allocate \$10 million for a public education programme under the Policy Framework for the Management of Municipal Solid Waste (2005-2014). The programme aims to support longer-term and community-wide public education projects, which are in line with the objectives of the Policy Framework. Six applications with a total funding of about \$3 million have been approved so far. These projects cover a wide range of topics, including reduction of plastic shopping bags, green procurement, green festive packaging, and the recovery and recycling of waste electrical and electronic equipment, etc.</p>
<p>(2) To introduce community programmes to encourage territory-wide separation of waste at source and introduce measures to facilitate household participation.</p>	<p>(a) As at March 2008, EPD has enlisted 865 housing estates in the territory-wide programme on source separation of domestic waste, covering about 46% of the population in Hong Kong. The medium term aim is to enlist 80% of the population by the end of 2010 and to extend the programme to all public rental housing estates by 2012.</p> <p>(b) Given the encouraging results of source separation in domestic premises, a similar programme for commercial and industrial premises was launched in October 2007. As at March 2008, some 380 buildings signed up to the programme, covering commercial and Government office buildings, shopping arcades, industrial buildings, warehouses and car parks.</p> <p>(c) Apart from providing funding support through the ECF to</p>

I. Solid Waste Management

First SD Strategy for Hong Kong	Implementation Progress
	<p>help property management companies to install source separation bins at the housing estates, EPD has, through liaising with the Buildings Department and Fire Services Department, published a Guidebook to facilitate household participation in source separation in mid 2006.</p> <p>(d) With the ECF funding support, ECC will procure 1,100 sets of recycling bins for distribution to housing estates.</p>
<p>(3) To step up implementation of the polluter-pays principle through the introduction of fiscal measures such as product responsibility schemes and green tax.</p>	<p>(a) EPD has introduced the Product Eco-responsibility Bill into the Legislative Council, with the environmental levy on plastic shopping bags as the first scheme under the Bill.</p> <p>(b) A Rechargeable Battery Recycling Programme, funded by 39 manufacturers and importers of rechargeable batteries and electronic equipment, moved into its fourth year in April 2008. Collection points are set up in more than 1010 housing estates covering 59 % of the population, some 290 commercial/industrial buildings and about 222 schools. About 140 tonnes of rechargeable batteries (equivalent to 705,000 pieces) have been collected, of which 66.6 tonnes have already been shipped to a designated treatment facility in South Korea for recycling.</p> <p>(c) A Computer Recycling Programme, funded by 20 manufacturers and suppliers of computer equipment, was launched in January 2008. Apart from 15 public collection points, collection points are also set up in some 520 housing estates and over 100 commercial/industrial buildings.</p> <p>(d) We will continue to promote the introduction of voluntary Product Responsibility Schemes. In particular, we have</p>

I. Solid Waste Management

First SD Strategy for Hong Kong	Implementation Progress
	<p>already started discussion with the electrical and electronic equipment suppliers and other stakeholders on the feasibility of organizing a voluntary trade-funded Waste Electrical and Electronic Equipment recycling programme.</p>
<p>(4) To develop a policy to promote the recycling industry.</p>	<p>EPD has been formulating a comprehensive policy to support the recycling industry. Specifically EPD will:</p> <ul style="list-style-type: none"> (a) improve the waste collection network through programmes on separation of waste at source; (b) adopt producer responsibility schemes as a major measure to enhance the recovery of recyclable materials as reported in item 3 above; (c) continue to lease suitable short term tenancy sites exclusively to waste recyclers. So far, a total of 36 sites have been let; (d) establish an EcoPark to provide long-term land for the environmental and recycling business (see the Implementation Progress to Plan of Action Item (5) below); (e) adopt a green procurement policy to enhance market demand for recycled products; (f) continue to support and encourage research and development of new recycling technologies through the ECF, the Innovation and Technology Fund and various funds for small and medium enterprises; and (g) continue to organize educational programmes at the community level to increase the public awareness of waste

I. Solid Waste Management

First SD Strategy for Hong Kong	Implementation Progress
	recycling.
<p>(5) To establish an EcoPark exclusively for the environmental industry.</p>	<p>(a) The EcoPark occupies 20 hectares of land in Tuen Mun Area 38 and will be developed in two phases. There will be a 460-metre long marine frontage in EcoPark for bulk sea transport.</p> <p>(b) Construction of EcoPark Phase 1 commenced in July 2006 and has been substantially completed. Three Phase 1 lots have been leased for the recycling of waste wood, used cooking oil, waste electronic and electrical equipment. Another two lots for processing organic waste and plastics will be awarded in mid-2008. Tenders for the remaining lot in Phase 1 will be invited as soon as possible. Phase 2 will be commissioned in 2009.</p>
<p>(6) To examine the introduction of charges for municipal solid waste.</p>	<p>(a) EPD completed a 3-month trial scheme in 20 housing estates with different settings including public rental estates, subsidized sales flats, private housing estates and government quarters.</p> <p>(b) The findings of the trial have identified a number of practical issues, including possible flytipping and enforcement problems and the need for complementary measures such as provision of source separation facilities to encourage compliance and waste recovery.</p> <p>(c) We consider that given Hong Kong's multi-storey multi-tenant household setting and the prevailing waste collection arrangements, a variable rate charging scheme would likely be subject to implementation difficulties in terms of</p>

I. Solid Waste Management

First SD Strategy for Hong Kong	Implementation Progress
	<p>ascertaining the amount and sources of MSW on individual household basis.</p> <p>(d) We will examine alternative means of charging, such as a fixed charge or flat rate system while building in appropriate incentives to encourage waste reduction and recycling. We will also conduct a comprehensive territory-wide baseline survey to collect information on the waste generation pattern and waste collection modes under different types of buildings and commercial and industrial (C&I) operations. The information collected would form the basis for the development of a MSW charging scheme for domestic and C&I waste.</p>
<p>(7) To consult the public on the introduction of advanced technologies for the bulk treatment of solid waste.</p>	<p>(a) EPD has identified two potential sites suitable for developing the IWMP, taking account of environmental, technical/engineering and economic considerations, as well as social impact and implications for consumers/users. EPD has briefed the Advisory Council on the Environment, the Legislative Council Panel on Environmental Affairs and relevant District Councils on the site selection results. EPD will continue to engage the public on the IWMP development, and this will include the organization of roving exhibitions in various districts during mid-2008.</p> <p>(b) EPD organised a public seminar in March 2008 which introduced the latest waste treatment technologies and shared with both local and overseas experts their experience and knowledge on the concerns and measures to address the environmental, health and safety aspects of the thermal waste treatment technologies. The seminar was attended by</p>

I. Solid Waste Management

First SD Strategy for Hong Kong	Implementation Progress
	<p>about 300 participants.</p> <p>(c) In parallel, EPD is pursuing the engineering and Environmental Impact Assessment (EIA) studies for the two identified sites. In accordance with the Environmental Impact Assessment Ordinance requirement, EPD will advertise the project profile in early April 2008. The engineering and EIA studies are planned to commence in late 2008.</p>

II. Renewable Energy

First SD Strategy for Hong Kong	Implementation Progress
<p>A. <u>Strategic Objectives</u></p> <p>(1) To explain clearly the issue of Renewable Energy (RE) to the wider community, putting this in the context of local and global sustainable development, by organising regular promotional and educational campaigns.</p> <p>(2) To have an energy policy that is sustainable in the longer term, and that will set clear goals for the increased use of RE in Hong Kong and promote energy efficiency and conservation.</p>	<p>To promote RE in the community, the Environment Bureau (ENB) and the Electrical and Mechanical Services Department (EMSD) have been implementing various measures, including cooperation with the two power companies, green groups and other non-governmental organisations in launching public education and publicity programmes, encouraging the use of RE in government buildings as well as the private sector, and working with the power companies to promote the use of RE in power generation. Details are set out below.</p>

II. Renewable Energy

First SD Strategy for Hong Kong	Implementation Progress
<p>(3) To increase and sustain conservation of energy in order to reduce the growing trend of energy use.</p>	
<p>B. <u>Targets</u></p> <p>(1) To organise more public education programmes on RE and sustainable energy consumption that links these issues to local and global sustainable development.</p> <p>(2) To aim to have between 1% and 2% of Hong Kong's total electricity supply met by power generated from renewable sources by the year 2012, with this target being subject to regular review in the light of advances in technological solutions and emerging sustainability considerations.</p> <p>(3) To develop plans to promote energy efficiency and conservation as part of a sustainable energy policy.</p>	<p>Details are set out below.</p>
<p>C. <u>Plan of Action</u></p> <p>(1) To work with the power companies and other stakeholders to organise more education campaigns on RE.</p>	<p>(a) ENB and EMSD have regular meetings with the two power companies on ways to promote RE, and energy efficiency and conservation.</p> <p>(b) Hongkong Electric (HEC)'s 800kW demonstration wind turbine at Lamma Island commenced operation in February 2006 (http://lammawindturbine.hec.com.hk/), and CLP Power (CLP) has already completed the EIA for the</p>

II. Renewable Energy

First SD Strategy for Hong Kong	Implementation Progress
	<p>construction of a wind turbine at Hei Ling Chau (http://www.epd.gov.hk/eia/register/report/eiareport/eia_1242006/html/index.htm). Separately, the two power companies are conducting EIA studies for building off-shore commercial wind farms in Hong Kong waters.</p> <p>(c) In collaboration with Education Bureau and EMSD, the two power companies produced a web-based educational kit for secondary school students on energy efficiency. Briefings were organised for secondary school teachers to introduce the educational kit (http://www.hk-phy.org/energy/index_e.html).</p> <p>(d) Both power companies have launched sponsorship schemes to promote use of RE or energy efficiency and conservation. CLP's Energy Innovation Fund (https://www.clpgroup.com/SocNEnv/Env/EnvEdu/CLFund/Pages/default.aspx) and HEC's Clean Energy Fund (http://www.hec.com.hk/hehWeb/CommunityAndEducation/CleanEnergyFund/Index_en.htm) each earmarked about \$1M in 2007 for implementing projects related to RE or energy efficiency and conservation.</p> <p>(e) The Education Path at the EMSD Headquarters was opened in October 2005 where schools and other interested organisations may familiarise with the latest technologies in RE and energy efficiency. The Education Path consists of Exhibition Galleries with interactive exhibits and a viewing gallery where a 350kW photovoltaic facility and two wind turbines (1kW and 1.5kW) are installed. As at</p>

II. Renewable Energy

First SD Strategy for Hong Kong	Implementation Progress
	<p>December 2007, a total of 250 organisations and 9,700 visitors have visited the Education Path (http://www.emsd.gov.hk/emsd/eng/pee/ep.shtml).</p> <p>(f) In 2007, EMSD continued to organise a series of technical seminars and workshops for stakeholders (including government departments and professional institutions) and supported non-governmental organisations in organising education and publicity activities.</p> <p>(g) EMSD set up a thematic website, the “HK RE Net” (http://re.emsd.gov.hk/), in December 2007 providing information on various RE technologies with a view to facilitating their adoption.</p>
<p>(2) To establish by 2006 a policy on the installation of RE facilities as part of new government buildings and major public sector projects.</p>	<p>The Government issued a circular on “Adoption of Energy Efficient Features and Renewable Energy Technologies in Government Projects and Installations” in 2005. The circular requires all works departments to apply energy efficient features and RE technologies in government projects and installations where feasible, and requires works departments to regularly report progress (http://www.devb-wb.gov.hk/UtilManager/tc/C-2005-16-0-1.pdf).</p>
<p>(3) To work with the power companies on arrangements for simplifying procedures for RE suppliers to gain access to the existing electricity grid, with the aim of having appropriate procedures in place in the post 2008 electricity market, and to encourage them to use RE sources for power</p>	<p>(a) EMSD revised the “Technical Guidelines on Grid Connection of Renewable Energy Power Systems” in December 2007, providing guidance on technical aspects of connecting RE systems of capacity up to 1MW to the electricity grid (http://re.emsd.gov.hk/english/gen/grid/grid_tech.html).</p>

II. Renewable Energy

First SD Strategy for Hong Kong	Implementation Progress
<p>generation.</p>	<p>(b) CLP published an information leaflet entitled “Renewable energy systems and CLP’s electricity grid”, providing information on the application procedure for connection by small RE systems to their grid.</p> <p>(c) Under the new post-2008 Scheme of Control Agreements (http://www.enb.gov.hk/en/resources_publications/agreement/index.html) signed between the Government and each of the two power companies in early January 2008, the power companies will enjoy a higher (11%) permitted rate of return for their investment in RE facilities. A bonus of 0.01 to 0.05 percentage point in permitted return will be offered in accordance with the extent of RE usage in their electricity generation. The power companies will offer standardised arrangement for back-up power supply for customers with embedded RE systems in Hong Kong. The arrangement is subject to the prior written agreement of the Government, including the technical and safety requirements stipulated in the latest “Technical Guidelines on Grid Connection of Renewable Energy Power Systems (2007 Edition)” prepared by EMSD.</p>
<p>(4) To draw up by 2007 a sustainable energy policy that has regard to measures aimed at promoting the use of RE and encouraging energy efficiency and conservation.</p>	<p>(a) Under the new post-2008 SCAs, provisions have been put in place to encourage the two power companies to adopt more usage of RE (which have been outlined above), and energy efficiency and conservation measures. For energy conservation, the performance of the power companies will be assessed based on the number of energy audits they perform for customers and the actual energy saved. A maximum award of 0.02 percentage point in permitted</p>

II. Renewable Energy

First SD Strategy for Hong Kong	Implementation Progress
	<p>return will be given. Both power companies agree to set up a loan fund (CLP: \$25 million per annum; HEC: \$12.5 million per annum) over a five-year period (amounting up to \$125 million and \$62.5 million in total) to provide loans to non-government customers to implement energy saving initiatives identified in energy audits to promote energy efficiency. They also agree to set up an education fund (CLP: \$5 million per annum; HEC: \$2.5 million per annum) for energy efficiency and promotion activities. This fund will be administered by the power companies involving representation from key stakeholders.</p> <p>(b) A mandatory Energy Efficiency Labelling Scheme for energy-using products will be introduced in the first half of 2008 after the enactment of the relevant legislation. Other energy-using products will also be gradually included in the mandatory scheme to further promote the use of energy-efficient products (http://www.emsd.gov.hk/emsd/eng/pee/eels_mandate.shtml).</p> <p>(c) The Government completed a three-month public consultation on the proposed mandatory implementation of the Building Energy Codes in March 2008. Majority of the views received supported a mandatory implementation of the Building Energy Codes to further enhance building energy efficiency in Hong Kong. ENB and EMSD will prepare the legislative proposal taking account of the views received (http://www.enb.gov.hk/en/resources_publications/policy_consultation/building_energy_codes.html).</p>

III. Urban Living Space

First SD Strategy for Hong Kong	Implementation Progress
<p>A. <u>Strategic Objectives</u></p> <p>(1) To speed up improvements to the environment of older urban areas through a “people-oriented” approach and the flexible deployment of the “4R” strategy – redevelopment, rehabilitation, preservation and revitalisation.</p>	<p>(a) The Urban Renewal Authority (URA) will endeavour to forge ahead with its urban renewal programme through a “people-oriented” approach. At the coming review of the Urban Renewal Strategy (URS) (http://www.ursreview.gov.hk/en/index.html) (see item C(1) below), we will consult the public on how the relative weightings of redevelopment, preservation, rehabilitation and revitalisation should be rebalanced.</p>
<p>(2) To plan and further develop the New Territories, taking account of stakeholder concerns on sustainability issues such as the need to protect the natural environment and cultural characteristics of rural areas, while having regard to Hong Kong’s long-term socio-economic needs.</p>	<p>(b) This strategic objective has been taken on board in the HK 2030 Study (http://www.pland.gov.hk/p_study/comp_s/hk2030/) conducted by the Planning Department (PlanD) and would continue to be followed by PlanD and Civil Engineering and Development Department (CEDD) in the forthcoming studies, such as the Planning and Engineering Study on the North East New Territories New Development Areas (http://www.cedd.gov.hk/eng/projects/major/ntw/index.htm).</p>
<p>(3) To promote sustainable urban planning and design practices that will ensure that Hong Kong will be an attractive and enjoyable place in which to live and work.</p>	<p>(c) This objective is achieved through the continuous application of sustainable urban design guidelines set out in the Hong Kong Planning Standards and Guidelines (HKPSG) (http://www.pland.gov.hk/tech_doc/hkpsg/index_e.html) in planning studies, plan making and development control process.</p>

III. Urban Living Space

First SD Strategy for Hong Kong	Implementation Progress
<p>B. <u>Targets</u></p> <p>(1) To regenerate older urban districts by taking full account of the need for economic viability whilst emphasizing the importance of open space provision and retaining local socio-cultural characteristics and heritage buildings.</p>	<p>(a) The URA will continue to work towards the targets under its “4R” urban renewal strategy (http://www.ura.org.hk/html/c304000e1e.html). The Development Bureau and the URA have jointly adopted a district-based approach in preserving and revitalising the old Wan Chai area, with a view to strengthening its local socio-cultural characteristics.</p>
<p>(2) To clarify the relative social, economic and environmental considerations that would need to be addressed in further developing the New Territories, so that stakeholders can regularly give informed views on the merits of development options.</p>	<p>(b) Extensive public engagement exercises, as well as a multi-step evaluation process to take full account of social, economic and environmental considerations, has become established practice for PlanD and CEDD in carrying out planning and engineering studies like those for the development of New Development Areas. Through this process, the public would be adequately informed of the merits and demerits of different development options. This would facilitate stakeholders to formulate their views with sound basis (http://www.pland.gov.hk/pub_con/index_e.html).</p>
<p>(3) To maintain and to review on a regular basis guidelines governing sustainable urban planning and design, with special regard to issues such as buildings affecting view corridors or restricting air flow and the need to proceed in a manner consistent with the overall sustainable development strategy for Hong Kong.</p>	<p>(c) Sustainable urban design guidelines in HKPSG to improve outdoor air ventilation were published for public reference in 2006. A HPLB/ETWB Technical Circular on Air Ventilation Assessment (AVA) No. 1/06 (http://www.devb-plb.gov.hk/eng/circulars/pdf/hplb-etwb-tc-01-06.pdf) was issued in 2006 to set out guidelines and procedures for government project proponents to apply AVA in planning and design of government project.</p>

III. Urban Living Space

First SD Strategy for Hong Kong	Implementation Progress
<p>C. <u>Plan of Action</u></p> <p>(1) To consult stakeholders on guidelines for revitalisation and redevelopment of older urban areas for inclusion in the Urban Renewal Strategy by 2006, and to publicise the document widely.</p>	<p>The Development Bureau plans to commence a review of the URS together with the URA before the end of the current legislative session (http://www.ursreview.gov.hk/en/index.html). The URS review will, amongst others, consider how the relative weightings of redevelopment, preservation, rehabilitation and revitalisation should be rebalanced in taking forward urban renewal initiatives. A territory-wide public engagement process will be launched.</p>
<p>(2) In the context of the “HK 2030” study, to explain clearly the sustainability implications for further development of the New Territories, with a view to having a framework for sustainable detailed planning through stakeholder consultation in place by 2006.</p>	<p>The three-step evaluation framework developed for the HK2030 Study has helped ensure that social, economic and environmental considerations as well as public views have been given due regard throughout the study process. The HK2030 Study Final Report, together with relevant papers (including the Strategic Environmental Assessment Report and Report on Sustainability Assessment), are available for public’s inspection (http://www.pland.gov.hk/p_study/comp_s/hk2030/eng/finalreport/). We will continue to explain the sustainability implications to the public and stakeholders in other planning and development studies.</p>
<p>(3) To continue to implement and keep under review the current guidelines on sustainable urban design.</p>	<p>This is a continuous and on-going process. Sustainable urban design guidelines to improve quality of outdoor living environment in HKPSG were updated in 2006 for public reference (http://www.pland.gov.hk/tech_doc/hkpsg/english/ch9/ch9_text.htm).</p>

III. Urban Living Space

First SD Strategy for Hong Kong	Implementation Progress
(4) Having regard to the effectiveness of measures to promote sustainable building design features, to consider further enhancing sustainable building design guidelines, with a view to drawing up recommendations for improvement, including an assessment of the implications of setting mandatory requirements in this area by 2007.	The Buildings Department has commissioned a consultancy study to explore measures to promote building design features that support sustainable urban living space. The bureaux and departments concerned are considering the preliminary findings made by the consultant and will consult the stakeholders before deciding the way forward.