First Sustainable Development (SD) Strategy for Hong Kong Fourth Annual Implementation Progress Report (May 2009)

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A. Strate	egic Objectives	
(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.	 (a) The Environmental Protection Department (EPD) published "A Policy Framework for the Management of Municipal Solid Waste (MSW) (Policy Framework – see http://www.epd.gov.hk/epd/msw/), 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. (b) The Policy Framework embraces the fundamentals of sustainable waste management strategy, the "user pays" and "producer responsibility" principles and proposes tools
(2)	To apply the "user pays" principle as a means of reducing volumes of waste for disposal.	and measures (http://www.epd.gov.hk/epd/msw/htm_en/ch03/main.htm#Role) 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.
(3)	To adopt advanced technologies and practices to treat waste requiring final disposal and to create new economic opportunities.	

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B. Targets We will review the targets recommended by the Council for SD, namely – (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.	EPD has adopted the targets recommended (http://www.epd.gov.hk/epd/msw/htm_en/ch04/main.htm#OurTargets) by the Council for SD and included them in the Policy Framework. (a) Compared to the previous year, the amount of MSW disposed of at our landfills (http://www.wastereduction.gov.hk/en/materials/info/msw2006.pdf) increased by 0.5% against an economic growth of 2.5% over the same period. The recovery rate of domestic waste almost doubled from 16% in 2005 to 31% in 2008. With the increase in domestic waste recovery, the overall recovery of MSW also increased
(2) To increase the recovery rate of municipal solid waste to 45% by 2009 and 50% by 2014.	from 43% in 2005 to 48% in 2008. (b) Yet, despite efforts in waste reduction (http://www.epd.gov.hk/epd/english/environmentinhk/waste/prob_solutions/waste_ps_wmd.html), the amount of MSW generated remains on an increasing trend (http://www.wastereduction.gov.hk/en/materials/info/msw2006.pdf). Possible factors
(3) To reduce the total municipal solid waste disposed of in landfills to less than 25% by 2014.	contributing to the trend may include the robust economic growth and strong tourism influx in the first three quarters of 2008. As a result, the overall landfill disposal of MSW has increased slightly by 0.5% to about 3.46 million tonnes. (c) EPD will press ahead with the development of IWMF in order to achieve the Policy Framework's target of reducing the total MSW landfilled to less than 25% (http://www.epd.gov.hk/epd/msw/).

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C. Plan of Action	
(1) To embark on educational programmes to reduce waste generation.	(a) EPD, together with the Environmental Campaign Committee (ECC) (http://www.ecc.org.hk/), 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 APIs (Announcements of Public Interest).
	(b) The Environment and Conservation Fund (ECF) has agreed to allocate \$10 million for a public education programme (http://www.epd.gov.hk/epd/english/news events/events/events pep.html) 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. 17 applications with a total funding of about \$6.76 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.
(2) To introduce community programmes to encourage territory-wide separation of waste at source and introduce measures to facilitate household participation.	(a) As at May 2009, EPD has enlisted 1,114 housing estates in the territory-wide programme on source separation of domestic waste (https://www.wastereduction.gov.hk/en/household/source_comp.htm), covering about 58% 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.
	(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 May 2009, some 520 buildings signed up to the programme, covering

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	commercial and Government office buildings, shopping arcades, industrial buildings, warehouses, tertiary education institutions, racecourses and car parks.
	(c) The Building (Refuse Storage and Material Recovery Chambers and Refuse Chutes) Regulations (Chapter 123H) was amended in the 2007-08 legislative session. All new domestic buildings and the domestic part of new composite buildings are required to provide a refuse storage and material recovery room on every building floor to facilitate residents to participate in waste recovery. The amended legislation came into effect on 1 December 2008.
	(d) With the ECF funding support, ECC launched in November 2008 a promotion programme to distribute waste separation bins freely to housing estates and commercial and industrial buildings. It is expected that 5,000 sets of waste separation bins will be distributed through this programme.
(3) To step up implementation of the polluter-pays principle through the introduction of fiscal measures such as product responsibility schemes and green tax.	(a) The Product Eco-responsibility Ordinance was enacted in July 2008. The Environmental Levy Scheme on Plastic Shopping Bags is the first producer responsibility scheme under the Ordinance. Subsequent to the enactment of the Product Eco-responsibility (Plastic Shopping Bags) Regulation in April 2008, the levy scheme commenced on 7 July 2009.
	(b) A Rechargeable Battery Recycling Programme (https://www.wastereduction.gov.hk/en/workplace/rechargebattery_intro.htm), funded by 37 manufacturers and importers of rechargeable batteries and electronic equipment, moved into its fifth year in April 2009. Collection points are set up in 1,065 housing estates covering 59 % of the population, 368 commercial/industrial buildings and 224 schools. In the first four years, about 170 tonnes of rechargeable batteries (equivalent to 880,000 pieces) have been collected, of which 166 tonnes have already been shipped to a designated treatment facility in South Korea for recycling.

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	(c) A Computer Recycling Programme (https://www.wastereduction.gov.hk/en/workplace/crp_intro.htm), funded by 20 manufacturers and suppliers of computer equipment, was launched in January 2008. Apart from 14 public collection points, collection points are also set up in some 535 housing estates and over 130 commercial/industrial buildings. Up to end May 2009, about 25,000 pieces of major computer equipment have been collected. Better quality computers have been donated to the needy through a charitable organization. Others have been dismantled and recycled.
	(d) A Fluorescent Lamp Recycling Programme (https://www.wastereduction.gov.hk/en/household/flrp_intro.htm), funded by 13 manufacturers and suppliers of fluorescent lamps, was launched in March 2008. Apart from 59 public collection points, collection points are also set up in 627 housing estates. In the first year, about 257,000 lamps have been collected and delivered to a mercury lamp treatment facility at the Chemical Waste Treatment Centre.
	(e) As pledged in the 2008-09 Policy Address, we will examine the feasibility of introducing mandatory Product Responsibility Scheme (PRS) for used electrical and electronic products, including the scope of the PRS and the possible forms that it may take. We aim to consult the public and the trades on the feasible options before the end of 2009.
(4) To develop a policy to promote the recycling industry.	EPD has been formulating a comprehensive policy to support the recycling industry. Specifically EPD will:(a) improve the waste collection network through programmes on separation of waste at source;
	(b) adopt producer responsibility schemes (http://www.legco.gov.hk/yr05-06/english/panels/ea/papers/ea0424cb1-1300-4-e.pdf) as a major measure to enhance

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	the recovery of recyclable materials as reported in item 3 above;
	(c) continue to lease suitable short term tenancy sites exclusively to waste recyclers. At present, there are a total of 35 such sites. The total area is about 7 hectares;
	(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 (http://www.epd.gov.hk/epd/english/how_help/green_procure/green_procure.html) to enhance market demand for recycled products;
	(f) continue to support and encourage research and development of new recycling technologies through the ECF (http://www.ecf.gov.hk/), the Innovation and Technology Fund (http://www.itf.gov.hk/) 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 recycling.
(5) To establish an EcoPark exclusively for the environmental industry.	(a) The EcoPark (http://www.epd.gov.hk/epd/ecopark/index.html) 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.
	(b) Phase I of the EcoPark has been substantially completed and all of the six Phase I lots have been leased for the recycling of waste wood, waste cooking oil, computer equipment, waste plastics, waste metals, and used car batteries. Construction of EcoPark Phase II started in December 2008 and is scheduled for completion by end 2009.

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(6) To examine the introduction of charges for municipal solid waste.	(a) EPD carried out a 3-month trial scheme in late 2006/early 2007 to examine the logistical requirements for introducing a variable rate charging scheme in 20 housing estates with different settings including public rental estates, subsidized sales flats, private housing estates and government quarters (http://www.epd.gov.hk/epd/english/environmentinhk/waste/prob_solutions/wsg1_m_swcts.html).
	(b) The findings of the trial have identified a number of practical issues, including possible fly-tipping and improper use of bags. The problem of tracing the source of waste in Hong Kong's multi-story, multi-tenant buildings also created enforcement difficulties.
	(c) Separately, a baseline survey was commissioned in late 2008, in order 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 provide reference for the development of possible options for MSW charging in Hong Kong.
(7) To consult the public on the introduction of advanced technologies for the bulk treatment of solid waste.	(a) In early 2008, EPD identified two potential sites suitable for developing the first phase of the IWMF, 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, the relevant District Councils, Rural Committee and Area Committees on the site selection results.
	(b) EPD commenced the detailed engineering and EIA studies in November 2008 to ascertain the overall suitability of the two potential sites. The studies would be completed in late 2010 by which time decision on the final site would be made. This would be followed by the necessary project implementation work with a view to

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A. Strate	gic Objectives	
(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.	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.
(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.	
(3)	To increase and sustain conservation of energy in order to reduce the growing trend of energy use.	

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B. Tar	<u>gets</u>	
(1)	To organise more public education programmes on RE and sustainable energy consumption that links these issues to local and global sustainable development.	Details are set out below.
(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.	
(3)	To develop plans to promote energy efficiency and conservation as part of a sustainable energy policy.	
C. Plar	of Action	
(1)	To work with the power companies and other stakeholders to organise more education campaigns on RE.	(a) ENB and EMSD have regular meetings with the two power companies on ways to promote RE, and energy efficiency and conservation.(b) Hongkong Electric (HEC)'s 800kW demonstration wind turbine at Lamma Island commenced operation in February 2006 (http://lammawindturbine.hec.com.hk/).

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	Separately, HEC and CLP Power are planning to build off-shore commercial wind farms in Hong Kong waters.
	(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).
	(d) Both power companies have launched sponsorship schemes to promote use of RE or energy efficiency and conservation. CLP Power (CLP)'s Energy Innovation Fund (https://www.clpgroup.com/SocNEnv/EnvEdu/CLFund/Pages/default.aspx?lang=en) and HEC's Clean Energy Fund (http://www.hec.com.hk/hehWeb/CommunityAndEducation/CleanEnergyFund/Index=en.htm) each earmarked about \$1M in both 2008 and 2009 for implementing projects related to RE or energy efficiency and conservation.
	(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 May 2009, a total of 594 organisations and 19,770 visitors have visited the Education Path (http://www.emsd.gov.hk/emsd/eng/pee/ep.shtml).
	(f) In 2008, 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.

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	(g) The "HK RE Net" (http://re.emsd.gov.hk/), launched in December 2007, has been providing comprehensive information on various RE technologies to the public with a view to facilitating their adoption, and has attracted more than 160,000 visitors.
(2) To establish by 2006 a policy on the installation of RE facilities as part of new government buildings and major public sector projects.	(a) 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).
(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 generation.	 (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). (b) Both power companies published information leaflets providing information on the application procedure for connection by small RE systems to their grids. (c) Under the 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 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 have already formulated standardised arrangement for back-up power supply for customers with embedded RE systems in Hong Kong.

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(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.	 (a) Under the 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 return will be given. Both power companies have 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 have also set up an education fund (CLP: \$5 million per annum; HEC: \$2.5 million per annum) for energy efficiency and promotion activities. This fund is administered by the power companies involving representation from key stakeholders. (b) A mandatory Energy Efficiency Labelling Scheme for energy-using products was introduced in the first half of 2008 after the enactment of the relevant legislation. We plan to include two more energy-using products in the scheme to further promote the use of energy-efficient products (http://www.emsd.gov.hk/emsd/eng/pee/eels_mandate.shtml). (c) To improve the energy efficiency of new and existing buildings, the Government proposes to mandate the implementation of the Building Energy Codes. We are now preparing the relevant legislative proposal, with an aim to introduce the proposed legislation into the Legislative Council by end 2009.

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A. Strate	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.	 (a) The Urban Renewal Authority (URA) will endeavour to forge ahead with its urban renewal programme through a "people-oriented" approach. (b) Under the current review of the Urban Renewal Strategy (URS) (http://www.ursreview.gov.hk), we are consulting the stakeholders on how best to proceed with urban regeneration through the "4R" (namely, redevelopment, rehabilitation, preservation and revitalisation) and other strategies (see item C(1) below).
(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.	(a) 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 up 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 (NENT) New Development Areas (NDAs) (http://www.cedd.gov.hk/eng/projects/major/ntw/index.htm) which was commenced in June 2008.
(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.	(a) 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.

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B. <u>Targets</u>		<u>ts</u>	
	(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.	 (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 sociocultural characteristics. (b) Under the URS Review, we will further examine the implementation of district-based urban regeneration.
	(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.	(a) 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 (NDAs). 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). The Stage One Public Engagement of the NENT NDAs Study commenced in mid November 2008 and lasted for about three months. Four major topics including the topic on "Sustainable Living Environment" were discussed. The Stage Two Public Engagement will consult the public on the Preliminary Outline Development Plans. It is scheduled for the third quarter of 2009. We shall continue to engage the public on the discussion of sustainable development for the planning of the NDAs.
	(3)	To maintain and to review on a regular basis guidelines governing sustainable urban planning and design, with special regard to issues	(a) 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

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	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.	guidelines and procedures for government project proponents to apply AVA in planning and design of government project.
C. Plan	of Action	
(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.	(a) The Development Bureau, with URA's support, commenced the URS Review in July 2008. The review comprises 3 stages of public engagement and is expected to be completed in about two years. (http://www.ursreview.gov.hk). We have completed Stage 1 "Envisioning" and are in Stage 2 "Public Engagement" which involves a series of public engagement activities until the end of 2009. Stage 3 "Consensus Building" will be from January to April 2010. The URS review will, amongst others, consider how best to proceed with redevelopment, preservation, rehabilitation and revitalisation in taking forward urban renewal initiatives.
(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.	(a) 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.

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(3)	To continue to implement and keep under review the current guidelines on sustainable urban design.	(a) 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).
(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.	(a) The Buildings Department has commissioned a consultancy study on "Building Design that Supports Sustainable Urban Living Space in Hong Kong", to promote building design features that support sustainable urban living space. Views of the public and the industry on the recommendations of the study will be solicited through the Public Engagement Process on "Building Design to Foster a Quality and Sustainable Built Environment" to be conducted by the Council for Sustainable Development on 20 June 2009 before deciding on the way forward (http://www.susdev.org.hk/en/home.aspx).