

For discussion
On 29 March 2010

Legislative Council Panel on Environmental Affairs

Update on the Progress of the Key Initiatives in the “Policy Framework for the Management of Municipal Solid Waste (2005-2014)”

PURPOSE

This paper updates Members on the progress of key initiatives in the “Policy Framework for the Management of Municipal Solid Waste (2005-2014)” (Policy Framework).

KEY INITIATIVES IN THE POLICY FRAMEWORK

2. To manage our municipal solid waste (MSW) (i.e. domestic and commercial and industrial¹ (C&I) waste) in a holistic manner, the Administration published the Policy Framework in December 2005, which sets out a comprehensive waste management strategy for the next ten years. With continuing effort, we have progressively achieved positive results in waste avoidance and reduction at source, waste recovery and recycling, as well as bulk reduction of waste.

3. The continuous expansion of the source separation of MSW and the introduction of the voluntary producer responsibility schemes (PRS's) help improve the waste recovery in Hong Kong. In 2009, the domestic waste recovery rate is 35% which has more than doubled the figure of 16% in 2005. As for C&I waste, the recovery rate has been maintained at a relatively high level of some 60% over the years. Overall, we achieved an MSW recovery rate of 49% in 2009. As compared with equivalent statistics² in some other jurisdictions, our MSW recovery rate is higher than United States (33%), United Kingdom (35%) and Singapore (43%), although there are some even better

¹ In consultation with Waste Management Subcommittee of the Advisory Council on the Environment, commercial and industrial waste is reviewed to exclude waste concrete generated from concrete batching plants and cement plaster / mortar production / manufacturing plants not set up inside construction sites, in order to truly reflect the pattern and trend of waste generated from commercial and industrial activities.

² Due to differences in reporting methodology and timing, MSW recovery rates for United States, United Kingdom, Singapore and Germany are calculated from the relevant waste statistics in 2008 published by the respective governments.

examples such as Germany (62%). However, as the international economic situation remains challenging, the outlook of waste recovery in Hong Kong in the coming years is overshadowed by the uncertainty in the global demands for recyclable materials. We will continue to support the development of local recycling, including the facilitation for the recycling industry to move to higher-end and value-added operations, and to explore possible outlets for recovered materials and recycled products.

4. The efforts in waste recovery also reduce the quantity of waste which requires disposal at landfills. Since the launch of the Policy Framework, it is the fifth consecutive year recording reduction in landfill disposal of domestic waste with a cumulative decrease of about 14.5%. On a year-by-year comparison, the amount of domestic waste disposed of at landfills dropped by 1.4% in 2009, as compared to 2008, to about 2.20 million tonnes. On C&I waste, in 2009 the quantity of C&I waste disposed of at landfills remained at the 2008 level of around 1.08 million tonnes. The overall landfill disposal of MSW has decreased by 0.9% to about 3.27 million tonnes.

5. The implementation progress of major initiatives under the Policy Framework is set out below.

MSW Recovery and Recycling

6. Launched in January 2005, the territory-wide Source Separation of Domestic Waste Programme aims at providing suitable recycling facilities for domestic waste at locations as close as possible to its sources of generation, and at the same time broadening the types of recyclables to be recovered. It also encourages the community's participation in waste recovery and facilitates the provision of a reliable source of materials for the recycling industry.

7. As at end 2009, there were 1 256 (996 in 2008) housing estates participating in the programme, covering some 1.57 million (1.23 million in 2008) households or 67% (53% in 2008) of the population. Around 27% of them have implemented a floor-to-floor mode of waste separation, while the remaining set up waste separation facilities on the ground floor to collect different types of recyclable materials, including paper, plastics, metals, used clothes, small electrical and electronic appliances. We will continue to press ahead with the programme and, in particular, we are seeking to extend the coverage of the programme to some older districts as well as rural areas.

8. In 2009, we achieved a recovery rate of 65% for C&I waste. To press ahead with the recovery of C&I waste, a promotional programme targeting C&I buildings has been operative since October 2007. Some 554 buildings have

signed up to the programme, covering commercial and institutional buildings, industrial buildings, shopping arcades, warehouses and car parks. The programme recognizes and encourages the implementation of source separation practices in C&I buildings. We will continue to recruit new buildings. With funding support from the Environment and Conservation Fund (ECF), the Environmental Campaign Committee has been providing newly designed waste separation bins to housing estates, C&I buildings, schools, as well as recyclable collection points at public places.

Producer Responsibility Schemes

9. In the Policy Framework, we highlighted the “polluter-pays principle” to provide economic incentives for the public to reduce and recycle waste. In line with this principle, PRS’s will enable manufacturers, importers, distributors, retailers and consumers to share the eco-responsibility of reducing, recovering and recycling, as well as contributing to the treatment and disposal of certain spent products so as to minimise the environmental impact. The Product Eco-responsibility Ordinance (Cap. 603) (PERO) was enacted in July 2008 to provide the legal basis for introducing mandatory PRS’s in Hong Kong.

10. With general public support and consensus, the Environmental Levy Scheme on Plastic Shopping Bags (the Levy Scheme) was launched on 7 July 2009 as the first PRS introduced under the Ordinance. We have undertaken to review the effectiveness of the scheme one year after implementation taking into account related statistics and other relevant factors. In the meantime, we are closely monitoring the impact of the Levy Scheme through conducting disposal surveys and vetting returns by prescribed retailers, and encourage the relevant trades and the public to continue with reducing the indiscriminate use of plastic shopping bags.

11. Further to the Levy Scheme, we have identified waste electrical and electronic equipment (WEEE) as the next target product for mandatory PRS. WEEE contains hazardous components that could be harmful to the environment and human health if not properly treated or disposed of. Around 70 000 tonnes of WEEE is generated in Hong Kong annually and the volume has been on the rise in recent years. By introducing a mandatory PRS for the proper management of WEEE, we could on one hand avoid negative impact that WEEE might bring to the environment, and on the other hand promote the recycling of waste and the reuse and recovery of useful materials. At the same time, it would help to boost the development of the local environmental industry. We published a consultation document in January 2010 for the purpose of soliciting the public’s views on the proposed PRS on WEEE. The public consultation period will end on 30 April 2010. We will take into account the views collected

when further developing the details of the scheme.

12. Besides pursuing PRS's under the PERO, we have been promoting and supporting the voluntary recycling programmes to recover and recycle certain products. The Computer Recycling Programme (CRP), the Fluorescent Lamp Recycling Programmes (FLRP) and the Glass Container Recycling Programme for the Hotel Sector (GCRP) were launched respectively in January, March and November of 2008. Together with the Rechargeable Battery Recycling Programme (RBRP) launched in 2005, all the four programmes were funded and administered by the respective trades. By the end of 2009, the CRP has recovered around 33 200 units of used computer equipment; the FLRP 488 000 pieces of fluorescent lamps; the RBRP 990 000 pieces of batteries; and the GCRP 460 tonnes of glass. In light of the experience gained, we will continue to encourage voluntary PRS's among the relevant trades.

EcoPark

13. Further to alleviating the pressure on our fast-depleting landfill space, the waste recovered could be turned into useful products and channeled back to the economic chain. To add further impetus to the development of the recycling industry, the EcoPark in Tuen Mun provides long term land at affordable costs for the local environmental and recycling industries. The 20-hectare EcoPark is developed in two phases. In Phase I, all six lots have been leased. The operation of three of the Phase I tenants for recycling of used cooking oil, scrap metals and used computer equipment are expected to commence in April/May 2010. The remaining infrastructure development works of EcoPark Phase II will soon be completed. We are reviewing the leasing arrangements of Phase II lots, with reference to the experience gained from Phase I, the feedback from stakeholders and recycling trades and other relevant factors. The first batch of Phase II lots is expected to be available later this year. With a main theme of solid waste management, a visitor centre of 10 000 square feet will also be open to the public in April 2010.

14. At the same time, the Government is setting up two waste recycling centres in EcoPark Phase II with a view to providing a secured outlet for waste plastics and WEEE which have relatively limited market demand and their processing in Hong Kong is currently not economically sustainable. The two centres are to be run by two non-profit organisations with subsidy from the ECF. The plastic processing centre started operating in March 2010 while the WEEE recycling centre is expected to commence operation in the second half of 2010.

Towards a More Sustainable Waste Management Approach

15. Among other initiatives, we are developing a proposal to introduce MSW charging in Hong Kong to promote waste reduction and recovery. On the domestic side, we conducted in 2007 a three-month trial scheme to examine the logistical requirements for waste recovery and disposal in different domestic housing settings. We are about to complete by March 2010 a Baseline Study to collect information on the waste generation and waste management practices of different C&I establishments. The information collected from the trial scheme and the baseline study would facilitate the development of possible MSW charging options, having regard to the policy objective of providing economic incentives for the public to avoid, reduce, reuse and recycle waste as stated in the Policy Framework.

16. Despite efforts and progress in waste reduction and recycling, there is unavoidable waste that needs to be disposed of properly. Our three strategic landfills are approaching their capacity and their extension would be necessary to provide the final repository for our waste. In this connection, the feasibility and environmental impact assessment studies on the extension of the North East New Territories Landfill, the South East New Territories and the West New Territories Landfill have been completed. Our target is to commission the landfill extensions by mid to late-2010s before the exhaustion of the existing landfills.

17. Pursuing waste reduction and recycling and extending the landfills alone will not resolve our waste problem. We need to adopt a more sustainable approach to reduce the volume of waste that requires disposal, and to conserve our landfill space as the final repository for residue waste or inert waste that cannot be further treated. As set out in the Policy Framework, we will develop the Integrated Waste Management Facilities (IWMF) with incineration as the core technology to substantially reduce the volume of unavoidable waste, thereby extending the life span of the existing landfills and their extension.

18. We will develop the IWMF in phases having regard to the size of overall waste problem. The first phase will have a treatment capacity of about 3 000 tonnes per day (tpd). It will also incorporate a small-scale sorting and recycling plant to recover recyclable materials from mixed MSW. The first phase of the IWMF will occupy an area of about 10 hectares. The result of our comprehensive site search exercise concludes that the sites at Shek Kwu Chau and Tsang Tsui Ash Lagoons are suitable for consideration as potential sites. We are conducting the detailed engineering and EIA studies for both sites to ascertain their suitability. Subject to the study findings to be available in the second half of 2010, we aim to make a decision on the choice of site and to commence construction with a view to commissioning the facilities by the mid-2010s.

19. Food waste constitutes some 33% of our C&I waste disposed of at our landfills in 2009. To gather experience and information on the collection and treatment of organic waste, we commissioned a pilot composting plant in mid-2008. The pilot composting plant is capable of receiving up to 4 tpd of source-separated food waste from C&I premises. It also provides us with useful information in developing the Organic Waste Treatment Facilities (OWTF). Biological treatment technology, like composting or anaerobic digestion, will be adopted. The first phase of the OWTF is planned to be built in Siu Ho Wan on Lantau Island and will handle about 200 tonnes of source-separated food waste from the C&I sector per day. The EIA study was completed in February 2010. We have consulted the Tsuen Wan and Islands District Councils which raised no objection to this project. We aim to submit funding application of the project to the Legislative Council in the latter half of this year.

Encouraging Reuse of waste C&D materials in works projects

20. While waste construction and demolition (C&D) materials are not regarded as MSW, their disposal at landfill will impose further pressure on the fast-depleting landfill space. Waste C&D materials could be recycled to produce works materials. Examples include recycled aggregates and paving blocks made with recycled contents. To this end, we are exploring with Development Bureau the feasibility to promote greater use of works materials made of waste C&D materials in public works contracts, whenever the performances of these products are satisfactory and the prices of which are economically rational.

Public Education and Partnership

21. The successful implementation of the initiatives under the Policy Framework hinges on public support and participation. We will continue to press ahead with public education programmes on waste reduction and recovery. For example, through the Hong Kong Green School Award and the Student Environmental Protection Ambassador Scheme, we organised training sessions, education programmes and topic specific seminars to encourage teachers, students and parents to adopt a greener lifestyle, such as the use of reusable or recyclable lunch boxes and the reduction of plastic shopping bags.

22. In particular, to encourage schools to stop using disposable lunch boxes and adopt on-site meal portioning where possible, the Environment Bureau and the Education Bureau have jointly invited all schools to sign a Green Lunch Charter. More than 270 secondary and primary schools signed the Green Lunch Charter at its launch on 26 February 2010 to demonstrate their support for the provision of green lunch at schools. The standardised facilities of all newly built

schools will meet the requirement of on-site meal portioning. As regards existing schools, the ECF Committee has recently allocated an additional \$100 million, on top of the previously allocated \$50 million, to support existing schools in installing basic facilities for on-site meal portioning. As at end February, more than 180 schools have indicated interest in the funding support and more than 20 ECF applications have been approved.

23. In end 2006, the ECF Committee agreed to reserve \$10 million for a dedicated public education programme to promote environmental initiatives under the Policy Framework. So far, 19 applications with a total funding of about \$8.03 million have been approved. 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 WEEE.

24. As part of the Government's commitment to promote and support public engagement, we injected \$1 billion into the ECF to give new impetus to environmental education and research, including those on waste reduction and recovery. The Environmental Campaign Committee (ECC) will continue its partnership with District Councils and non-governmental organisations in promoting waste reduction and recycling initiatives, and low-carbon lifestyle.

25. We have also been promoting general awareness on waste reduction and recovery through local media. In addition to a series of TV and radio announcements of public interests (APIs) under the theme of "I love Hong Kong, I love Green", we have rolled out other APIs on source separation, simple packaging and reduction of plastic shopping bags. These help to enhance public awareness of the four R's: Reduce, Reuse, Recycling and Responsibility. The Hong Kong Awards for Environmental Excellence will continue to present "Wastewi\$e Label" to companies/organizations for practising waste reduction and recycling.

ADVICE SOUGHT

26. Members are invited to note the progress of implementing the key initiatives under the Policy Framework.

**Environmental Protection Department
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