4 Improving Hong Kong's Environment

3. Environmentally Sound Waste Management

Mission:

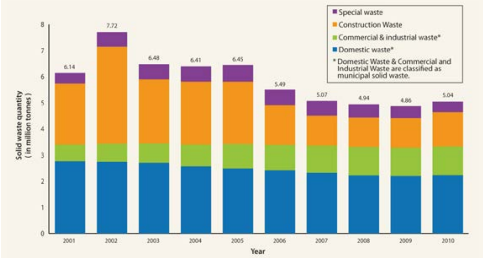
To safeguard the health and welfare of the community from adverse environmental effects associated with the handling and disposal of wastes by developing a sustainable waste management strategy, providing waste management facilities and enforcing the controls in the Waste Disposal Ordinance.

Our waste problem

3.1 Waste is one of Hong Kong's most serious environmental challenges. Hong Kong primarily relies on landfill to dispose of our waste produced every day. However, our landfills are rapidly 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.

3.2 In 2010, over 5 million tonnes of solid waste entered our landfills; however this is about 35 per cent lower than 2002 levels. We are pleased to report that this has been the result of initiatives, such as landfill disposal charges for construction waste together with programmes to reduce and recycle domestic and commercial and industrial waste. Our domestic waste levels have fallen by about 13 per cent since 2004 although commercial and industrial waste has remained at about the same level in the recent few years (see Figure 8).

Figure 8 - Solid waste landfilled in Hong Kong 2001-2010

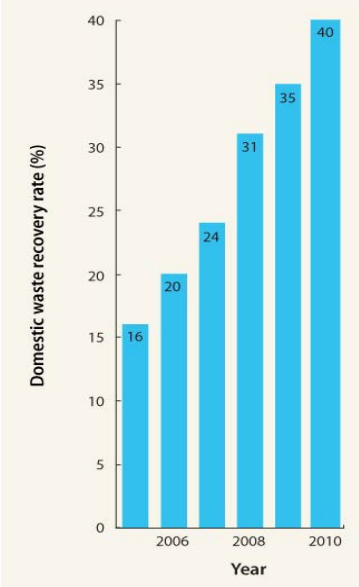


Reducing waste

3.3 We have been exploring municipal solid waste charging as a direct economic disincentive to promote waste reduction and recovery. In 2007, we completed a three-month trial scheme on domestic waste. Following the completion of the trial scheme, a baseline study on commercial and industrial waste generation patterns and waste management practices was completed in 2010. Based on these studies, in 2011, we will engage the public in continued discussions on possible options to introduce municipal solid waste charging in Hong Kong.

3.4 As part of the Policy Framework for the Management of Municipal Solid Waste (2005-2014) developed in 2005, we set a target to have 80 per cent of Hong Kong's population covered by the Programme on Source Separation of Waste (SSW) by 2010. We are pleased to report that we have reached 80 per cent of the population in over 1 600 housing estates/ buildings and 700 rural villages. The Programme's effect on waste recovery is evident from the corresponding increase in domestic waste recovery from 16 per cent to 40 per cent between 2005 and 2010 (see Figure 9). The Programme was extended to the commercial and industrial sector in October 2007 and by the end of 2010, almost 700 buildings are now participating.

Figure 9 – Domestic waste recovery rate



3.5 In 2007, we set up the Hong Kong Second-hand Exchange website for re-usable items and materials. By the end of 2010, the site had received 754 000 visits and information on more than 27 000 items has been uploaded resulting in over 5 100 items being successfully exchanged.

Producer responsibility

3.6 Producer responsibility requires that different stakeholders including producers and consumers take greater share of responsibility for the recovery and recycling of waste products. The Product Eco-Responsibility Ordinance was enacted in July 2008 to provide a legal framework for mandatory Producer Responsibility Schemes (PRS). The first mandatory PRS takes the form of a 50-cent environmental levy on plastic shopping bags. Introduced in July 2009, it has effectively reduced the distribution of plastic shopping bags from registered retailers by about 90 per cent. We will consult the public in 2011 with a view to extending it to cover all retailers in Hong Kong.

3.7 In 2008, we set up voluntary PRSs for rechargeable batteries, computers, fluorescent lamps and glass bottles. In 2010, the public was consulted on the proposal of a second mandatory PRS for waste electrical and electronic equipment (WEEE) and work is being undertaken to engage with the relevant trade on details of the scheme.

Table 5 - Voluntary producer responsibility programmes – quantities recovered

Programme	2008	2009	2010
Rechargeable Battery Recycling Programme	26.6 tonnes (160 480 pieces)	32.5 tonnes (154 750 pieces)	57.1 tonnes (981 380 pieces)
Computer Recycling Programme	19 170 major items (including desktop and notebook computers, CRT and LCD monitors, scanners and printers)	14 134 major items	21 171 major items
Fluorescent Lamp Recycling Programme	163 570 pieces*	312 310 pieces	349 850 pieces
Glass Bottles from Hotel Sector	62 tonnes#	428 tonnes	482 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.

Case Study 3 – WEEE GO GREEN

Each year, Hong Kong households and corporations throw away more than 70 000 tonnes of waste electrical and electronic equipment (WEEE) and computer products. Some of these items are still in good working condition and could be put to second-hand use. Moreover, all of them contain components and materials that could be recovered for reuse and recycling, such as metals and plastics. The WEEE Recycling Programme aims to channel WEEE for reuse and recycling instead of disposal. Since October 2010, St James' Settlement has been implementing the WEEE GO GREEN programme in the recycling centre at EcoPark in Tuen Mun. The Programme is funded by the Environment and Conservation Fund (ECF) on a 3-year basis. Under the programme, used home appliances will either be refurbished for delivery to needy families or dismantled to recover reusable and recyclable materials.

The Secretary for the Environment, Mr Edward Yau, tours "WEEE Go Green" Recycling Centre at EcoPark in Tuen Mun to learn about its operation.

The Secretary for the Environment, Mr Edward Yau (left), the Permanent Secretary for the Environment, Ms Anissa Wong (right), and other guests officiate at the opening ceremony of the Recycling Centre.

Waste facilities

Landfills

3.8 We have three strategic landfills to accept Hong Kong's solid waste. However, these will be exhausted as early as 2014 and latest by 2018, if we continue to dispose of our waste, according to our estimated waste arising rates. We have therefore been making preparations for extensions to these landfills. In 2010, we achieved the following:

- Completed the feasibility study for the West New Territories Landfill Extension and commenced planning for land resumption;
- Awarded the Design and Construction consultancy for the North East New Territories Landfill Extension; and
- Completed the feasibility study for the South East New Territories Landfill Extension with land re-zoning in progress.

Case Study 4 – Restoring Closed Landfills

Hong Kong's old landfills have been transformed into our assets. There are thirteen old landfills in Hong Kong which were closed between 1975 and 1996. A restoration programme has been implemented by EPD to minimise their potential adverse impacts on the environment and to render them safe for beneficial use. The restored landfills are bustling with life, offering residents of our crowded city attractive new venues where they can relax or enjoy recreational activities. For example, in Kwun Tong, the former Jordan Valley Landfill has been developed into a community park which was opened to the public in August 2010. The Jordan Valley Park features a radio-controlled model car racing circuit, horticultural education centre, community garden, children's play areas, elderly exercise corner, jogging track, etc.

Jordan Valley Park (previously Jordan Valley Landfill).

Waste treatment

3.9 Landfilling is an essential and inevitable part of the waste management strategy but by itself it is not a sustainable solution without waste treatment and reduction. As part of Hong Kong's waste management strategy, we must look at reducing the bulk of Hong Kong's waste through pre-disposal treatment.

3.10 In September 2010, a contract for the Design, Build and Operate of the Sludge Treatment Facilities (STF) was awarded. The design and construction of the STF commenced in October 2010 with a target commissioning date by end of 2013.

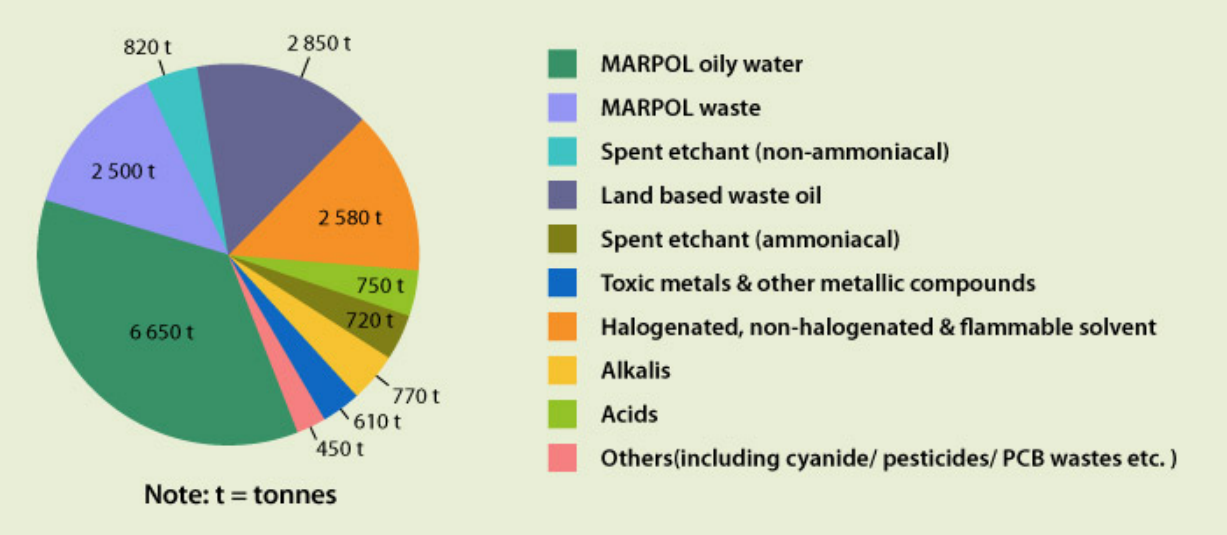
3.11 In 2010, the environmental impact assessment (EIA) for the Organic Waste Treatment Facilities, Phase 1 was completed and the preparation of tender documents, together with tender prequalification and assessment, will be carried out in 2011.

3.12 In November 2008, the government commenced a detailed Engineering Investigation and Environmental Impact Assessment Studies for two sites to ascertain their suitability for the Integrated Waste Management Facilities (IWMF) that would adopt advanced incineration for municipal solid waste treatment. The EIA Study was substantially completed in the end of 2010 for formal submission in early 2011. The preferred site for developing Hong Kong's first modern IWMF will be determined taking into account the EIA results and other factors related to Hong Kong's overall waste management strategy.

3.13 We will pay close attention to each step of the preparation work and expedite all the necessary actions so that the IWMF can be commissioned as early as possible. Meanwhile, we will continue to actively promote reduction, reuse and recycling of waste and eco-responsibility in order to reduce the amount of waste generated.

3.14 The Chemical Waste Treatment Centre (CWTC) handles most of the chemical waste in Hong Kong. In 2010, upgrading of the CWTC air pollution control system to meet the stringent European Union emission standards and construction of facilities for reception and treatment of clinical waste were in progress. We plan to receive and treat clinical waste at the CWTC in the second half of 2011.

Figure 10 – Chemical waste handled by the Chemical Waste Treatment Centre in 2010



See also: **Targets - Our Progress and 2011 Aims.**