

**Major Waste Reduction Measures
Proposed by the Consultants**

1. Wastewi\$e Scheme

- The consultants propose that a wastewi\$e scheme be set up jointly by industry and Government to encourage waste reduction initiatives. Individual companies joining the scheme will need to agree to implement three new waste reduction initiatives every year and maintain them for five years. They will need to publicise targets and performance of each of these initiatives but will benefit from the publicity, technical and other support associated with membership of the scheme. Government would need to initiate the Scheme initially but its relative and cost contribution are expected to diminish over time, assuming that company members gradually take over the development and administration of the scheme.

2. DEMOS

- The proposed Hong Kong DEMOSstration scheme (DEMOS) is a funding scheme to encourage industry and commerce to adopt the best available and most appropriate technologies to promote waste reduction. The consultants propose that Hong Kong DEMOS scheme be set up by Government with appropriate contribution from the private sector.

3a. Producer Responsibility

- The proposed producer responsibility scheme requires manufacturers and importers of particular product groups to take responsibility for the management of the wastes generated from their products. This often relates to packaging but can also include wastes considered problematic, such as batteries, vehicle tyres and construction wood wastes. Such scheme may be mandatory (e.g. in Austria, Taiwan, Sweden) but under the initial “voluntary approach” recommended for Hong Kong, Government will issue a “challenge” to manufacturers and importers to set targets for waste reduction and to initiate measures to ensure that these targets are achieved.

3b. Sectoral Schemes

- Sectoral schemes are proposed to encourage different sectors in the community to adopt waste reduction measures for targeted materials on a voluntary basis. Initially, six sectors are recommended to be targeted i.e. government departments, hotels, business office sector, retail sector, fast food outlet and restaurants, as well as beverage manufacturers and importers.

4. Preferential Purchase

- Preferential purchase supports waste reduction by stimulating the market for products with a high recycled content and/or low toxicity. The consultants propose that Government adopts voluntary preferential purchasing through the existing Green Manager Scheme in the early stages of the programme. It is hoped that as other measures in the WRP improve the quantity, quality and reliability of the supply of recycled materials and products, the private sector will be encouraged to adopt such a purchasing policy on a voluntary basis.

5. Green Labelling

- A green labelling scheme will help consumers to select products which contribute to waste reduction. The consultants propose that initially, the scheme be implemented on a voluntary basis in the form of a “green dot” to indicate a company’s involvement in one or more of the various waste reduction initiatives; products with a high recycled content and/or low toxicity and plastic products incorporating an identification code for assisting in the sorting of plastic recyclables. At a later stage, the scheme should be expanded to become a more comprehensive eco-labelling scheme which assesses a product’s environmental performance throughout its life cycle.

6. Grants for Material Recovery Projects

- The consultants propose that Government make available **grants** for specific material recovery projects which, under existing economic conditions, are unlikely to be set up without support. The projects may include setting up source separation systems in residential, commercial and multi-use industrial developments; recyclable deposit banks and material collection points to which members of the public or cleansing companies bring their recyclable materials; and mini-material recovery facilities where co-mingled recycling materials are re-separated, stored and perhaps undergo some initial processing. Grants should be limited in size and be focused on recovery of materials from the domestic sector as a priority. The subsequent operation of the facilities is expected to be self-financing as the demand for recycled products increases after the implementation of other measures in the proposed WRP.

7. Recycling Credits

- Recycling credits are payments to encourage the operation of material recovery projects focusing initially on the recovery of domestic recyclable wastes whose current recycling rate is only about 8%. The consultants propose that for the first three years, the recycling credits scheme will be operated as a series of pilot projects by Government with a view to assessing the most appropriate funding mechanism and level of credits for Hong Kong.

8. Changes in Town Plans and Land Allocation Policies

- The consultants propose changes to town plans and land allocation policies to reserve suitable sites for conducting material recovery activities and to create a new category of land use for waste recyclers who have to compete among themselves to acquire the land through a tendering or bidding process.

9. Changes in Building Regulations

- The consultants also propose changes in building regulations to require the provision of space for material recovery operations in all new buildings, appropriate to the size of the building and its intended use.

10. Waste Fired Power Generation (WFPG) Plant

- WFPG is an effective waste reduction technology which through incineration with energy recovery can reduce waste volume by 90% and mass by 70%. The consultants estimate that two WFPG plants would be required to handle waste generated in Hong Kong.

11. Composting Plant

- Composting will reduce waste volume by 40-60% and weight by 40-45%. The proposed programme will use source separated organic materials (typically from food processing industries, markets, hotels, restaurants and parks and gardens maintenance work) as a feedstock. The consultants recommend that initially a composting programme should be launched using the existing facility at Shaling. Depending on the success of this test programme, an additional suitably sized composting plant should be built.

12. Waste Reduction Team

- The consultants propose that a dedicated Waste Reduction Team of initially around five people be set up within Government to steer and manage the waste reduction strategy. They also propose the formation of a group called the Waste Reduction Task Force which will comprise representatives from interested groups covering Government, industry, commerce and others. This task force will not simply be an advisory or steering committee to the Waste Reduction Team, but will help push waste reduction initiatives by seeking agreements with various sectors of the community on the implementation of specific projects to achieve the waste reduction targets. The consultants recommend that a major review be conducted at the end of year 4 by the Waste Reduction Team to evaluate the success of the initial strategy and to assess the need for mandatory measures.

**Financial Implication of
Major Waste Reduction Measures
Proposed by the Consultants**

<u>Waste avoidance and materials recovery programmes</u>	<u>Cost in Year 1</u>	<u>Cost in Year 2</u>	<u>Cost in Year 10</u>
1. wastewi\$e	P nil A \$1.5m	P \$4.7m A \$1.5m	P \$18m A \$1.5m
2. DEMOS	P nil A \$1m	P \$1.3m A \$5m	P \$10m A \$1m
3. producer responsibility and sectoral scheme	P nil A \$2m	P \$12.5m A \$2m	P \$90m A \$2m
4. preferential purchase	P nil A \$1m	P \$2.6m A \$1m	P \$13m A \$1m
5. green-labelling	P nil A \$1m	P nil A \$1.3m	P \$14m A \$10m
6. grants for material recovery projects	P \$2.5m A \$2m	P \$5m A \$2m	P \$12.5m A \$2m
7. recycling credits	P nil A \$1m	P \$3m A \$2m	P \$16m A \$2m
8. changes in town plans and land allocation policies	P land cost not quantified A nil		
9. changes in building regulations	P land cost not quantified A nil		

<u>Bulk Waste Reduction</u>	<u>Capital Cost</u>
10. 2 waste fired power generation plants	\$6,000m
11. additional composting plant	\$76m

<u>Institutional</u>	<u>Staff</u>
12. waste reduction team	5

P = programme cost estimated by the consultants
A = administrative cost estimated by the consultants