



EnviroSeries Conference

Sustainable Waste Management: Policies, Partnerships and Prospects

8 June 2005

In 2004, Hong Kong produced about 6.4 million tonnes of solid municipal waste, which required disposal. The stresses on our landfill systems, into which the waste currently goes, are real and pressing. At the current rate of solid waste generation, our landfills will be full in 6-10 years. The EnviroSeries Conference entitled “Sustainable Waste Management – Policies, Partnerships and Prospects” held on 8 June 2005 brought together a series of local and overseas speakers to present and debate the issues.

Scene Setting

The opening remarks were given by Mr. Raymond Fan of the Environmental Protection Department who reiterated Hong Kong’s solid waste problems and outlined how Hong Kong should handle this dilemma through waste avoidance as well as looking at alternatives to landfill for treatment and disposal of waste. Mr. Fan further stated that waste avoidance hinged on factors such as public education, source separation and financial instruments; the latter comprising waste charges and producer responsibility schemes (PRS). Use of thermal treatment i.e. incineration is a consideration, but would not be the only method for dealing with Hong Kong’s solid waste. Mr. Fan took the opportunity to announce the coming White Paper on Municipal Solid Waste Management and he invited members of the private sector to be part of a crucial partnership in tackling this problem.



Mr. Albert Lai, Chairman of the People's Council on Sustainable Development, spoke next on the capital stock approach to sustainable development and how natural capital, man-made capital, intellectual capital and social capital formed important components of sustainable solid waste management in Hong Kong. Breakthroughs were called for in ideologies (e.g. more public support for waste industries and government intervention for recycled products), policy process (e.g. waste charges and rationale for treatment facilities) and governance (allowing more stakeholder participation in policy decisions for solid waste management).]

Considerations on the Sustainable Waste Management Strategy in Hong Kong

In the first presentation of Session 1 entitled "Considerations on the Sustainable Waste Management Strategy in Hong Kong", Professor C.S. Poon of the Hong Kong Polytechnic University explained at length the environmental impacts of existing and proposed technology underpinning the treatment of municipal solid waste in Hong Kong. In his comprehensive talk, Professor Poon compared landfill, material recycling facilities (MRF), mechanical biological treatment (MBT) facilities and thermal treatment methods (both incineration and gasification). Citing overseas cases (from Taiwan, Japan and Germany) as well as studies conducted locally, the case for locating incinerator plants within communities was made.

Mr. James Graham representing the Hong Kong General Chamber of Commerce spoke about industry's wish for immediate action to tackle solid waste and warned that waiting for a "silver bullet" solution (i.e. the perfect solution) served only to prolong procrastination. As long as business and Government broadly agreed on the economic viability of certain measures, such as (waste charging and PRS), it was in the interests of everyone to move ahead. Examples taken

from the construction sector were used to demonstrate how business initiatives aligned with Government goals could achieve notable outcomes.

Dr. Jonathan Wong provided a case study on the Un Chau Estate, a low income housing estate, where household source separation proved to be an effective means of waste reduction. Involving the community (through the District Councils, residential corporations, elderly centres and kindergartens) was key towards achieving a 42% participation rate and a 17% reduction in solid waste generation. Dr. Wong concluded that domestic source separation schemes work best when incentives are in place, residents take ownership of the schemes and the system is easy to access and use (e.g. door-to-door collection). An “informal administrative order” was also mentioned as an important step to ensure that public interests were kept in line with overall waste reduction goals.

Speaking from a policy maker’s perspective, Ms. Choy So-yuk, Chairperson of the Legislative Council’s Environmental Affairs Panel, talked about the readiness of the people and business to accept any tough measures needed to tackle waste. In her speech, she urged Government to adopt a more open mind set stating that waste treatment should not be the foremost course of action but rather waste avoidance and reduction should be pursued given that people are ready to pay, businesses will accept tough measures like PRS and the Legislative Council is prepared to support charging for waste.

In the panel discussion that followed, Ms. Teresa Wong of the Environmental Protection Department repeated the message that, whilst Government could find ways to meet the land and capital costs for waste treatment and disposal facilities, coming up with a sustainable solution depended very much on the community. A specific question from the floor enquired about Government support to SMEs involved in the recycling industry. Ms. Wong replied that



Government was considering the use of economic instruments, such as waste charging and PRS, to ensure that there was more waste being diverted from landfill for recycling; however she stressed the need to work with industry and to learn from the experience gained when introducing construction waste charges earlier this year. Other statements from the panelists concerned the importance of community based schemes (from Mr. Albert Lai), partnerships and incentives (from Dr. Jonathan Wong), and the need for action now so that the lead time for planning of major waste treatment facilities like incinerators could be in place (from Mr. James Graham).

Municipal Waste Treatment Alternatives

In the second session on municipal waste treatment alternatives, presentations on technology options being considered for Hong Kong and two overseas cases were provided.

In the first presentation of this session, Dr. Joseph Lee (representing the Technology Sub-Group of the Advisory Group to the Government on Waste Management Facilities) outlined how, through a two stage assessment and evaluation process, his team identified a short list of technology options that were suitable for Hong Kong. The list comprised incineration with energy recovery, gasification, co-combustion and mechanical and biological treatment.

Since 1999, Taipei has achieved a waste avoidance rate of 39%. Dr. Stephen Shen, formerly with the Taiwan Environmental Protection Department, talked about Taipei' s experience from the launch of its recycling programme in 1992 to the "zero landfill" vision by 2010 through a seven step process. Taipei' s waste reduction has been brought about as a result of reduction at source, waste charging (citizens are charged NT\$0.50 per litre), mandatory separation and



application of technology (e.g. fly ash reduction). Taipei still has three incineration plants of 900, 1,500 and 1,800 tonne per day capacity.

Angelos Bacapolous of the Solid Waste Management Services, City of Toronto, provided a concise presentation on Toronto's quest to achieve zero landfill diversion by 2012. Mr. Bacopolous emphasized the importance of community involvement and, through a comprehensive separation programme (i.e. a three coloured bin system) Toronto was able to obtain a 90% participation rate. Waste charging also played an important role based on charging apartments and single family households C\$3.10 per plastic waste bag, the proceeds of which went to a Waste Diversion Organisation. Other initiatives included: use of commercial bins, "pay as you throw" legislation, recycling carts for organic waste and infrastructure and end markets for durable goods like furniture.

Beyond Integrated Waste Management Strategy

In the final session, two representatives presented their views: Mr. Robin Chiu (Federation of Hong Kong Industries) and Mr. Joseph Lim (Onyx Hong Kong) both spoke on how industry could partner with Government to achieve sustainable results in waste management.

Mr. Chiu spoke on how the Federation was taking a lead in encouraging green procurement practices amongst its members, conducting the 1-1-1 programme in the PRD for factories belonging to some of its member companies and its support for the Government's Eco-Park; all of these measures being designed to encourage waste management and recycling. The key message to the audience was the willingness of industry to take advantage of the opportunities created by Government.



In Mr. Lim's experience, Government could leverage off the private sector's resources through better and more robust partnerships through performance based waste management contracts. In the latter, the critical issue was to have clear long term waste disposal targets, as well as control of waste flow to run a successful business partnership. Mr. Lim used his speech to further highlight projects that his company had carried out in Hong Kong and the Mainland where the governments had taken on different roles to best suit the economic and political conditions.

The final panel session involved all the speakers from the last two sessions. Particular focus was on the overseas experience and how the two cities, Taipei and Toronto, managed to divert waste from landfill through a mix of stimulating outlets for recycled products and keeping landfill costs and charges high enough to deter waste producers. The use of deposit funds, the proceeds of which go to the recycling industry was also raised for both cities. In closing, the panel speakers all urged Government to implement recycling policies faster, to communicate the urgency of the situation to the public more clearly, to proceed with "polluter pays" principles i.e. charging for waste and to seriously consider incineration as a necessary means to complement the waste management in Hong Kong.

The closing remarks were given by Mr. Keith Kwok, Permanent Secretary for ETWB reinforcing the importance of financial instruments and partnerships for Hong Kong's waste management strategy.

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