

**Confirmed Minutes of the 160th Meeting of
the Advisory Council on the Environment
held on 11 May 2009 at 2:30 pm**

Present:

Prof LAM Kin-che, SBS, JP (Chairman)

Ms Teresa AU

Prof CHAU Kwai-cheong

Ms Betty HO

Mr Edwin LAU

Prof Joseph LEE

Mr Michael LEE

Dr MAN Chi-sum, JP

Dr Alfred TAM

Mr TSANG Kam-lam

Prof WONG Ming-hung

Mr Simon WONG, JP

Dr YAU Wing-kwong

Prof Ignatius YU

Mr Carlson K S CHAN (Secretary)

Absent with Apologies:

Prof Paul LAM, JP (Deputy Chairman)

Dr Dorothy CHAN, BBS

Mr Oscar CHOW

Mr Michael JEBSEN, BBS

In Attendance:

Mr C C LAY

Assistant Director (Conservation), Agriculture, Fisheries
and Conservation Department (AFCD)

Mr P Y TAM

Assistant Director/Technical Services, Planning
Department

Ms Monica KO

Principal Information Officer, Environmental Protection
Department (EPD)

Ms Josephine CHEUNG

Chief Executive Officer (CBD), EPD

Ms Loletta LAU

Executive Officer (CBD), EPD

In Attendance for Agenda Item 3

Mr Albert LAM, JP
Dr Ellen CHAN, JP
Dr Alain LAM

Deputy Director of Environmental Protection (2), EPD
Assistant Director (Environmental Infrastructure), EPD
Acting Assistant Director (Waste Management Policy),
EPD

Action

Agenda Item 1 : Confirmation of the draft minutes of the 159th meeting held on 16 February 2009

The draft minutes were confirmed without amendment.

Agenda Item 2 : Matters arising from the minutes of the 159th meeting held on 16 February 2009

2. There were no matters arising from the minutes of the last meeting.

Agenda Item 3 : Update on the progress of the key initiatives in the “Policy Framework for the Management of Municipal Solid Waste (2005-2014)” (ACE Paper 7/2009)

3. A Member declared that her company was involved in a consultancy service for a public engagement exercise for the Environmental Protection Department (EPD) on the development of the Integrated Waste Management Facilities (IWMF). The Chairman suggested and Members agreed that the Member could stay and take part in the discussion as the consultancy service had no direct conflict with the subject of discussion.

4. Dr Alain Lam briefed Members on the progress of the key initiatives in the “Policy Framework for the Management of Municipal Solid Waste (2005-2014)” (Policy Framework), which aimed at achieving the following waste management targets –

- (a) to reduce the amount of municipal solid waste (MSW) (i.e. domestic plus commercial and industrial (C&I) waste) generated

in Hong Kong by 1% per annum up to the year 2014, based on the 2003 levels (target (a));

- (b) to increase the recovery rate of MSW to 45% by 2009 and 50% by 2014 (target (b)); and
- (c) to reduce the total MSW disposed of at landfills to less than 25% by 2014 (target (c)).

5. A Member was pleased to note that an overall recovery rate of 48% under target (b) was achieved in 2008, which was well ahead of the target set. He asked whether the Government would review and set a higher target. Mr Albert Lam explained that the outlook of waste recovery in Hong Kong in the coming years might be influenced by the current economic downturn which would affect the global demands for recyclable materials. The Government would continue to strengthen the momentum for local recycling and keep in view the development, including the need to review the targets.

6. A Member noted that the landfill disposal of C&I waste in 2008 had increased by about 11%, as compared to that in 2007. He was concerned that target (c) could not be achieved. Mr Albert Lam explained that possible factors contributing to the trend might include the robust economic growth and strong tourism influx in the first three quarters of 2008. In view of the increasing trend, more efforts would be made to promote source separation in C&I buildings. Since the launch of a promotion programme in October 2007, about 460 C&I buildings had signed up to the programme.

7. The Chairman enquired about the major types of waste generated by tourists and the share of waste from this source in the landfill disposal. Mr Albert Lam said that detailed breakdown to ascertain the exact source of the increase was not available. Dr Alain Lam said that the number of tourists to Hong Kong had increased from about 28 million in 2007 to 29 million in 2008 and the tourist influx might cause an increase in food waste and packaging waste generation. Dr Ellen Chan added that food waste constituted about 28% of landfill disposal of C&I waste in 2007 and increased to about 31% in 2008. Efforts would be made to further increase the waste recovery rate of C&I establishments (which included institutional buildings such as schools and

libraries), especially those in small C&I establishments by funding support from the Environmental Campaign Committee and Environment and Conservation Fund.

8. A Member asked whether construction and demolition (C&D) waste was included in the figure of C&I waste. It was anticipated that the amount of C&D waste to be generated by the 10 major infrastructure projects would be huge and the problem of fly-tipping would be serious. Dr Ellen Chan said that C&D waste was not included in the figure of C&I waste in view of the relatively large volume. Out of around 27,000 tonnes of C&D materials generated per day in 2008, about 2,600 tonnes were disposed of at landfills. The remaining inert materials were temporarily stored in public fill banks for delivery to the Mainland for reuse. The quantity of C&D materials had reduced by about half in recent years, as compared with over 55,000 tonnes per day in 2004. It was due to the implementation of the Construction Waste Disposal Charging Scheme which commenced in January 2006 and might also be partly due to the reduced construction activities in recent years.

9. On the problem of fly-tipping, Mr Albert Lam said that the implementation of the Construction Waste Disposal Charging Scheme was successful in reducing waste but had inevitably led to more fly-tipping cases. More efforts thus had gone into stepping up enforcement. A Subcommittee on Combating Fly-tipping was set up under the Legislative Council (LegCo) Panel on Environmental Affairs in April 2009 to discuss the issue. EPD had informed the Subcommittee of the counter-measures including the streamlining of the procedures for handling complaints on fly-tipping with EPD taking up the coordinating role. To further reduce C&D waste, a Member suggested requiring private developers to provide the choice of new flats without fit-in furniture and fixtures to minimize dumping of the new furniture and fixtures.

10. A Member shared the concern about the significant increase of 1.23 million tonnes (11%) of landfill disposal of C&I waste in 2008. He considered that the increase in food waste by tourists was only one of the contributing factors. It was necessary to have more detailed breakdown on the source of increase in order to tackle the problem more effectively. He was worried that targets (a) and (c) could not be achieved. The three landfills would start to approach their capacities in early to mid 2010s but the IWMF was

only planned to commission in mid-2010s. He urged the Government to implement concrete measures to reduce waste disposed of at landfills, such as further sorting at landfills before final disposal which had been adopted in the past.

11. A Member agreed that it was important to examine the composition of C&I waste in detail. He considered that the 11% increase of C&I waste was not commensurate with the rate of economic growth and influx of tourists in the year. Two Members shared the views. A Member considered that generation of C&I waste from local residents might be one of the major contributing factors for the significant increase. Mr Albert Lam said that advice would be sought from the Waste Management Subcommittee on the means to obtain and analyze data on the composition of C&I waste disposed of at landfills.

12. A Member shared another Member's worry that targets (a) and (c) could not be achieved. He considered that the most effective measures would be the Product Responsibility Schemes (PRSs) and IWMP (which incorporated a small-scale sorting and recycling plant to recover recyclable materials from mixed MSW). After the implementation of the PRS on plastic shopping bags in July 2009, there should be a concrete timetable for implementing other PRSs. As a long time frame had to be taken for developing the IWMP, consideration should be given to advancing the construction of the sorting and recycling pilot plant in order to gain experience and show the public that the IWMP was in full swing. Instead of only a small-scale sorting and recycling plant, plans should also be taken to expand the plant in future as sorting and recycling were important steps before incineration. A Member considered that the IWMP was not an "integrated" facility as it was mainly an incinerator plus a small-scale sorting and recycling plant. A Member considered that the achievement of target (b) should be a means to achieve targets (a) and (c). It was doubtful why the increasing recovery rate could not help reduce waste generation and disposal at landfills.

13. Mr Albert Lam explained that the achievement of targets (a) and (c) would depend very much on the implementation of the package of initiatives and some of the major initiatives were still in the pipeline. The Government was proactively working towards the targets by implementing various initiatives

in parallel. The legislative process for enacting the Product Eco-responsibility Ordinance took longer than expected. Following the implementation of the first PRS on plastic shopping bags in July 2009, efforts were being made to put in place other PRSs as soon as practicable. The plan was to conduct consultation on the PRS for waste electrical and electronic equipment (WEEE) within 2009. As regards the IWMF, the plan was to make the final decision on the choice of site and commence construction as soon as possible with a view to commissioning the facilities in mid-2010s. Nonetheless, it would take quite some time to solicit the support of local residents near the chosen site. Action would also be taken to expedite the development of the organic waste treatment facilities (OWTF). The original plan was to develop the OWTF by two phases, each handling about 200 tonnes of food waste per day. In view of the fact that food waste had increased to about 900 tonnes per day in 2008, preparatory work for the second phase was already in the pipeline in order to shorten the lead time. The Chairman considered that it was important to adopt an integrated approach, rather than relying on the IWMF, to tackle the imminent waste problem. In view of the significant increase in organic waste, it was necessary to expedite the development of the OWTF.

14. A Member was concerned about the implications of not being able to meet the targets (a) and (c) on the landfills even after extension. He considered that it was necessary to keep different kinds of waste under control, including domestic waste, C&I waste as well as special waste. Mr Albert Lam said that the deferment in achieving the targets would further shorten the life span of the landfills. Dr Ellen Chan said that about 13,500 tonnes of waste was disposed of at landfills in 2008, including about 9,500 tonnes of MSW, 2,600 tonnes of C&D waste and 1,400 tonnes of special waste (such as sludge and clinical waste). With the development of the Sludge Treatment Facilities, the sludge to be disposed of at landfills would be greatly reduced.

15. A Member considered that while the PRS on plastic shopping bags was a good start of PRSs, actions should be taken to extend the scope and coverage of the current scheme to other shopping bags and more outlets as the current scheme was very restrictive in terms of application.

16. A Member was concerned about the increasing number of WEEE as well as the environmental and health safety problems associated with the

hazardous electronic components. He enquired about guidelines on the handling, especially dismantling, of WEEE and the setting up of WEEE industry in the EcoPark. Dr Alain Lam said that the number of WEEE was increasing in the past years. Out of 71,000 tonnes of WEEE in 2008, 80% were recycled and the rest were disposed of at landfills. Recycling programmes of WEEE had been launched in collaboration with non-government organizations (NGOs) for donating reusable electronic and electrical products to those in need. The remainder was exported for reuse or recycling in other countries. The Mainland had recently tightened the control of import on WEEE and there was also a similar trend for other countries. This would affect the outlets for the recycling operations in Hong Kong. For local recycling of WEEE, the EPD was concerned about the impacts on the environment brought by dismantling hazardous electronic components. Consideration was given to developing a licensing system for qualified people in dismantling WEEE.

17. A Member considered that priority should be given to implementing PRS on styrofoam food containers in view of its popularity and negative impacts on the environment. Mr Albert Lam said that consideration would be given to implementing PRS on different products, including disposable food containers and cutleries, but there were other initiatives that could be implemented ahead of the legislative process. Dr Ellen Chan added that the use of disposable food containers and cutleries had been greatly reduced in schools as most of the lunch suppliers were willing to use reusable items.

18. A Member considered that both hardware and software were important for achieving the objective of waste reduction. Waste at source should be tackled by PRSs and charging schemes while waste at the disposal end should be tackled by waste treatment facilities. Nonetheless, the progress on PRSs and charging schemes was far too slow which could not induce incentives to producers and the public to reduce waste at source. Mr Albert Lam said that a three-month trial scheme was conducted in 2007 to examine logistical requirements for introducing a variable rate charging scheme under different domestic housing settings. Currently, a territory-wide Baseline Study was being conducted to collect information on the waste generation and waste management practice of different C&I establishments. The information would provide a useful reference for the development of a practicable charging scheme for MSW.

19. A Member considered that measures should be taken to control food waste generated by tourists as it was anticipated that the number of tourists from the Mainland would continue to increase. Mr Albert Lam said that further efforts would be made to reduce food waste from tourists in collaboration with the relevant trades. Dr Ellen Chan said that they had close liaison with the trade discussing various means to reduce food waste, such as exploring the possibility of setting up small composters for large buildings with restaurants, giving discounts to customers for reducing quantity of food and using leftover of cooked food gainfully. A plant in Phase I of EcoPark had been in operation for recycling used cooking oil to biodiesel. The plant had close liaison with some large food and catering chain stores for sourcing used cooking oil. The Chairman considered that it was important to solicit support from the trade, such as hotels and restaurants. The trade was also keen to help promote environmental protection which could help them build up positive image and save costs.

20. Being a member of the Certification Board of the Hong Kong Organic Resource Centre, a Member noted that local farmers had difficulties in sourcing certified organic fertilizers. He hoped that the output of OWTF could be used as organic fertilizers and attention should be made on the level of salt from the food waste. Mr Albert Lam said that a pilot composting plant in Kowloon Bay was commissioned in mid-2008 by receiving food waste from different C&I sources. It was found that so far the quality of the compost was generally suitable for local organic farming. Dr Ellen Chan added that there were also facilities for treating other organic waste such as horse waste from stables. Expert advice showed that composting a mix of food waste, green waste and animal waste would be even more suitable for organic farming.

21. A Member considered that the Government should take the lead in purchasing locally produced compost for landscaping and agricultural purposes and set standards of the compost for different purposes, such as organic farming for food production and landscaping. A Member suggested the Government taking the lead to utilize kitchen waste, processed food waste, expired food and animal waste for green farming in fish ponds and farm lands. Mr Albert Lam said that Government departments, such as Agriculture, Fisheries and Conservation Department, Highways Department and Leisure and Cultural Services Department, would be encouraged to use compost produced by the

OWTF. When supply became more steady, compost would be widely promoted as part of the green procurement practice.

22. A Member considered that a more strategic approach should be adopted to tackle the problem of increasing food waste. Collection points or recycling centres at district level should be set up which could greatly reduce operation and social costs and encourage processing of food waste by the trade. A Member supported and suggested that recycling centres should be set up at district level for collecting major recyclable materials, as in the case of overseas countries, by engaging NGOs and concerned groups with support from the Government. This would provide a steady source of recyclable materials to support the development of local recycling industry.

23. A Member agreed that it was necessary to review critically the strategy in handling food waste in view of the increasing trend, including whether the two phases of OWTF were sufficient. Incentives in the form of recognition or subsidies should be given to encourage voluntary processing of food waste by the trade. Mr Albert Lam explained that Phase I of OWTF in Siu Ho Wan was planned to commence operation in mid 2010s and Phase II would be built in Sha Ling by late 2010s. The two phases would be able to handle about 400 tonnes of source-separated food waste per day. In view of the increasing trend of food waste, EPD would review the need to develop more plants in light of experience. Nonetheless, selection of sites would be a potential problem.

24. A Member noted that the recovery rate of domestic waste almost doubled from 16% in 2005 to 31% in 2008. He enquired about the factors leading to such a significant increase, the major types of materials recovered and the prospect of developing local green industries. The Chairman considered that the recent announcement by the Government in promoting green economy would be a good opportunity for the recycling industry. A Member agreed that the development of green industries was very important for waste recycling. He enquired about the rationale of choosing the six types of industries in Phase I of the EcoPark and the prospect of the current operations. A Member considered that the Government should take the lead to promote eco-industry in order to create local demand of recycled products by promoting green purchasing within the Government.

25. Dr Ellen Chan said that the materials recovered mainly consisted of about 30% paper, 30% plastic and 20% metal. Over 90% of the recyclable materials were exported to the Mainland for further processing. The export value amounted to about \$7.4 billion in 2008. There were increasingly more stringent requirements by the Mainland and overseas countries in importing recyclable materials. The local recycling industry was operating at the low end approach of collecting, baling and exporting of recyclable materials. The EcoPark in Tuen Mun provided long-term land at affordable costs with sea frontage and basic infrastructure for local value-added environmental and recycling industries. Taking account of such considerations as availability of recyclable materials, potential for reuse, demand of the recycled products and prospect of development, the six lots in Phase I were leased to tenants for recycling different types of materials. The leasing arrangements of Phase II were being reviewed in the light of experience, feedback from stakeholders and recycling trades as well as other relevant factors.

26. A Member considered that the key concern for the business sector in investing in the recycling industry was commercial consideration. The Government should thus provide more assistance to the recycling industry and most importantly provide the required infrastructure to facilitate and encourage collection of recyclable materials. Many people were willing to sort the waste if there were provisions of recycling bins or facilities at convenient locations.

27. A Member agreed to the need to strengthen the provision of infrastructure to facilitate the collection of recyclable materials. The provision of recycling bins in public areas and private residential estates was not sufficient. A Member suggested drawing reference to the practice in Japan by putting recycling bins near convenience stores. This would be very useful to remind and facilitate the public in locating recycling bins. Mr Albert Lam said that plans were in hand for placing more recycling bins in public areas having regard to factors such as pedestrian flow. There were also suggestions that a rubbish bin should be put beside the recycling bins to facilitate the disposal of non-recyclable waste. With the mandatory requirement for providing refuse storage and material recovery room in new domestic buildings, the infrastructure for waste recycling in private buildings would be much improved. For existing buildings, management companies were encouraged to place more recycling bins in common areas.

28. A Member considered that the current public education programmes were not effective enough. More vigorous and large-scale public relations programmes should be launched to let the public feel the shock and sense of urgency of the serious waste problem and short life span of the landfills. Unlike the air pollution problem which could be visible by the Air Pollution Index and smoggy sky, the public could not visualize the actual impacts of the waste problem as the waste they produced was efficiently disposed of overnight. A Member suggested publishing widely statistical data on waste in the form of indicators or indices in order to let the public understand more clearly the seriousness and urgency of the problem. Other creative ideas such as a count-down clock could be used as a visible reminder to show the short life span of landfills. Mr Albert Lam thanked Members for the suggestions.

29. A Member considered that the pace in rolling out public education programmes in the past few years was far too slow. It had taken a very long time to raise public awareness of BYOB (bring your own bag). There were many other aspects of behavioural change in waste reduction which should be vigorously promoted, such as packaging waste and food waste. More strenuous efforts should be devoted to large-scale public education and publicity programmes. It was necessary to fast-track the implementation of various initiatives in the Policy Framework. Most important of all, it was necessary to let the public know clearly the way ahead to achieve the targets and the real picture of the waste problem and difficulties faced for them to appreciate the seriousness of the problem and share responsibilities. Mr Albert Lam said that concerted efforts would be made to launch education programmes on waste reduction and recovery with organizations, green groups and trades, such as eco-friendly packaging especially in festive seasons and use of reusable cutleries. The rolling out of PRS on plastic shopping bags was also a means to instill behavioural change.

30. A Member enquired about the difficulty encountered in the past four years in implementing the initiatives in the Policy Framework for planning the way forward. Mr Albert Lam said that while advanced technologies and resources were available for development of the waste treatment facilities, one of the major difficulties encountered was the siting of these facilities given the “not-in-my-backyard” mindset. The introduction of economic disincentives was not welcomed as it added to the financial burden of the consumers. With

the efficient service of disposing waste in Hong Kong, the sense of responsibilities in reducing waste was not strong or visible. Moreover, time required for the legislative process was often longer than expected. The Member considered that it was necessary for the Government to launch more public relations programmes to keep the public aware of the progress of various initiatives in an integrated and sustainable manner in order to solicit support from the general public and LegCo members as well as to reduce resistance of local residents in developing waste treatment facilities.

31. The Chairman concluded the discussion as follows –

- (a) seriousness – the Council was very concerned about the seriousness and imminent waste problem having regard to the latest information on waste generated and progress of key initiatives in the Policy Framework;
- (b) sustainability – the Council was concerned about the increasing trend of waste generation in recent years, in particular C&I waste, food waste and WEEE, causing a threat to the sustainability of the waste management approach and further shortening the life span of the landfills;
- (c) integration – the Council emphasized that an integrated approach should be adopted to tackle the waste problem. Integrated policies with required hardware and software; integrated technologies from source separation to waste disposal; and transparency in the sequencing of schemes and setting phases under various initiatives (including PRSs, charging schemes, EcoPark, IWTF and OWTF) were important in soliciting public buy-in and political support;
- (d) strategy – the Council considered that a strong commitment from the top and a strategic approach were the driving force for the community to tackle the waste problem. During the visit to Europe in 2006, the Council was very impressed with the policy of “zero-waste” adopted by the European Union (EU) which was a driving force for the business sector and the community to

immediately join hands to achieve the mission; and

- (e) solution – the Council considered that in-depth research should be conducted to analyze the source of problems such as the significant increase in C&I and food waste; more vigorous and large-scale public education and public relations programmes should be launched to remind the public that the waste problem could not be out of sight and then out of mind; communication with LegCo members on the common concerns should be strengthened; and partnership with the trades and NGOs was essential to achieve a win-win situation.

Agenda Item 4 : Any other business

Meeting date for July 2009

- 32. The Chairman suggested and Members agreed to change the meeting date in July from 13 July 2009 to 6 July 2009.

Tentative items for discussion at the next meeting

- 33. The agenda was being compiled. Members would be informed in due course.

Agenda Item 5 : Date of next meeting

- 34. The next meeting was scheduled for 8 June 2009.

ACE Secretariat
May 2009