

**Confirmed Minutes of the 37th Meeting of
the Waste Management Subcommittee
held on 20 April 2018 at 2:30 pm**

Present

Ir Prof Irene LO, JP (Chairperson)
Dr HUNG Wing-tat, MH
Ms Julia LAU
Prof Albert LEE
Mr Anthony LOCK
Ir MA Lee-tak, SBS
Mr Luther WONG, JP
Ir Conrad WONG, BBS, JP
Prof Jonathan WONG, MH, JP
Mr Simon WONG, JP
Ms Becky LAM (Secretary)

Absent with Apologies

Prof LAU Chi-pang, JP
Ir Michelle TANG
Prof WONG Sze-chun, BBS, JP

In Attendance

Mr Andy CHAN	Acting Assistant Director of Environmental Protection (Waste Reduction and Recycling), Environmental Protection Department (EPD)
Ms Olivia OR	Senior Statistician, EPD
Miss Dora CHU	Executive Officer (CBD) 1, EPD
Miss Apple LEUNG	Executive Officer (CBD) 2, EPD

Action

The Chairperson welcomed Members to the meeting and informed that apologies of absence had been received from Prof Lau Chi-pang, Ir Michelle Tang and Prof Wong Sze-chun.

Item 1: Matters Arising

2. The minutes of the last meeting held on 19 July 2016 was confirmed by circulation after the meeting. There was no matter arising from the minutes of

the last meeting.

Item 2: Monitoring of Solid Waste in Hong Kong 2016
(ACE-WM Paper 1/2018)

3. The Chairperson informed that the paper updated Members on the statistics on disposal and recovery/recycling of solid waste generated in Hong Kong in 2016.

4. There was no declaration of interests by Members.

5. At the invitation of the Chairperson, Ms Olivia Or briefed Members on the 2016 statistics of solid waste in Hong Kong with the aid of a powerpoint presentation.

Compiling the waste statistics

6. In response to the questions raised by a Member regarding the significant increases in commercial and industrial (C&I) waste and construction waste in 2016, Ms Olivia Or explained that there was a positive correlation between the C&I waste disposal and the gross domestic product (GDP), as a buoyant economy would generally lead to more consumption and in turn waste generation. Also, waste disposal was affected by recovery, as wastes that could not be recovered for recycling would end up in landfills. Given that more than 90% of the recovered waste was exported to the Mainland and other countries for recycling, the recovery rate would be affected by certain factors such as price, demand and the import requirements imposed by the Mainland and other countries. As regards construction waste disposal, she explained that this was positively correlated to the construction activities in Hong Kong. With reference to the statistics in 2017, the index of construction work had increased by 3.6% while the index of overall construction waste disposal witnessed a decrease of 4.9%, which suggested that the increased charges implemented in April 2017 under the Construction Waste Disposal Charging Scheme was effective in reducing the disposal of construction waste. The Environmental Protection Department (EPD) would keep in view of the statistics to study the effectiveness of the scheme in due course.

7. A Member suggested the Government consider adopting a more aggressive approach in controlling the Municipal Solid Waste (MSW) disposal rate and make reference to overseas experience. With the agreement of another

Member, he pointed out that effective control measures should be able to diminish or compensate for the negative effect generated by the aforementioned factors on the MSW disposal rate. He suggested EPD compile statistics showing the relationship between the MSW disposal rate and the effectiveness of the control measures if possible, in order to justify the injection of additional resources for further control measures.

8. With reference to the increase in C&I food waste disposal in 2016 by 29.3%, a Member mentioned that the growth in the catering industry was less than 10% and requested for detailed breakdown on the source of food waste within the C&I sector.

9. A Member followed that the high food waste disposal in 2016 was unexpected given that food retailers and vendors had made great efforts to reduce food disposal over the years. He also commented that the food waste was mainly the leftover generated by consumers. He further opined that a charging scheme alone would not be effective without identifying the source of food waste and providing appropriate outlet.

10. Ms Olivia Or explained that waste composition surveys were conducted at landfills and refuse transfer points using sampling techniques. Regarding the increase in food waste disposal in 2016, photos taken by contractors during the waste composition surveys suggested that much of the food waste was generated by food factories. Mr Andy Chan added that a further breakdown on the food waste generated by the C&I sector was not available at the moment.

11. A Member suggested the Government review and improve the sampling methodology with more detailed breakdown on the sources.

12. A Member added that the current waste composition survey was used to study the breakdown of various waste types in MSW disposal at landfills. In order to study the sources of a particular waste type such as food waste, he considered that a focused study on generation pattern from waste generation front would be more useful.

Implementation and effectiveness of charging schemes

13. A Member was of the view that a decreased quantity of domestic waste disposal might not support the suggestion of a greater awareness in waste

reduction by households, but simply a higher level of consumption activities by households as reflected by the increasing GDP and quantities of C&I waste disposal. As such, he considered that public education and promotion programmes should be strengthened to raise public awareness on voluntary-based waste reduction.

14. In reply to a Member's written question regarding the progress of implementation of the various charging schemes, Ms Olivia Or advised that taking into account the feedback from various stakeholders on the proposed modifications on the MSW charging scheme, the Government was currently working to enhance the infrastructure and support for the implementation, and was planning to introduce the Amendment Bill into the Legislative Council later this year.

15. Mr Andy Chan supplemented that while MSW charging would be a comprehensive scheme for the whole community, other charging schemes targeting specific sectors and industries, for instance, the Environmental Levy Scheme on Plastic Shopping Bags and the Construction Waste Disposal Charging Scheme, had already proved to be effective in raising environmental awareness, inducing behavioural change and/or promote recycling. The Government was preparing for the introduction of the producer responsibility schemes (PRSs) on glass beverage containers and waste electrical and electronic equipment (WEEE), and had kick-started an 18-month feasibility study in October 2017 on introducing a new PRS on suitable plastic product containers. Mr Chan mentioned that there were various prerequisites and considerations when introducing a new PRS, which included a clear definition of the waste type, impact on landfills, sufficient treatment facilities as well as available outlets for the recyclables. The Government would continue to study the feasibility of placing other types of waste under the PRS or charging schemes when appropriate.

16. A Member considered that the Government should engage the public such as by holding consultation sessions at the early planning stage of any new charging schemes given that fostering public discussion itself could help to raise environmental awareness.

17. A Member considered that securing outlets for the waste recyclable was very important for a charging scheme to be successful. Otherwise, the charging schemes would only create a financial burden on the concerned stakeholders without any reduction in waste disposal at landfills.

18. A Member said, with the agreement of another Member that the preliminary planning work was very important to enhance the effectiveness of the charging schemes. The Member said that arrangements should be made in advance to facilitate the reuse of inert construction and demolition (C&D) waste via proactively matching of works projects with surplus excavated materials and those with deficit fill materials, and initialize and implement appropriate works projects to bridge any gaps as necessary. Moreover, the Government could consider providing incentives for the producers to adopt environmentally-friendly product designs, and influencing consumer preferences and demands by education and promotional programmes.

19. Mr Andy Chan advised that project proponents and contractors were required to make reference to the waste reduction guidelines and draw up a waste management plan prior to the commencement of site operations. He also commented that the management of fill materials posed a great challenge to the Government as the supply of and demand for fill materials was highly unpredictable.

Increasing the MSW recovery rate

20. With reference to the declining MSW recovery rate, a Member opined that the Government should provide the necessary facilities to support the development of the local recycling industry.

21. A Member considered that the Government should step up the pace of developing the local recycling industry by placing extra effort in the research and development (R&D) of recycling technologies and minimizing the reliance on overseas markets.

22. Mr Andy Chan commented that global market influences and rapid changes in the international arena on policies of waste management might pose a great challenge to the waste management plan in Hong Kong. He mentioned that the Mainland had recently further stepped up the restrictions on the import of some 32 types of solid waste by the end of 2018 and 2019. In view of the situation, the Government would strive to promote the development of some manufacturing facilities using local recycled materials.

23. Addressing a Member's enquiry regarding the recovery rate of overall construction waste, Ms Olivia Or advised that the recovery rate of 93% had taken

account of both inert and non-inert construction waste. Mr Andy Chan supplemented that the construction waste primarily consisted of inert construction waste which would be deposited at the public fill banks for further reuse in reclamation and site formation works.

24. A Member suggested EPD provide a breakdown of the composition of the construction waste being recovered for reference by the construction industry, such that apart from the inert C&D waste which would be primarily disposed of at the public fill banks, more considerations could be placed on recovering non-inert wastes such as wooden pallets.

25. The Chairperson opined that the recovery rate of overall construction waste was not unreasonably high, as the recovery rates in Singapore and the Netherlands reached 99%. Furthermore, a large portion of the recovered construction waste was disposed of at the public fill banks due to the low local demand and extra costs that had to be incurred in transporting the fill materials to the Mainland.

26. In reply to a Member on the recovery of waste batteries, Mr Andy Chan advised that waste lead-acid batteries, including those typically used in motor vehicles and certain uninterruptible power supply (UPS) systems, were classified as chemical waste. There were some chemical waste treatment facilities in Hong Kong that could handle and recover useful metals from chemical waste for export primarily to other countries. It was anticipated that the disposal of waste batteries of motor vehicles would increase in the near future. While many electrical vehicle manufacturers were committed to recollecting their waste batteries, in anticipation of the increasing amount of waste batteries, the Government was exploring the feasibility of enhancing the services of the Chemical Waste Treatment Centre, subject to spatial constraints.

Reviewing targets for disposal rate

27. With reference to the marked increase in per capita disposal rate from 2011 to 2016 and the decreasing trend of the MSW recovery rate, the Chairperson considered that it might not be feasible to achieve the disposal rates as set out in the “Hong Kong Blueprint for Sustainable Use of Resources 2013 – 2022” (the Blueprint), i.e. 20% by 2017 and 40% by 2022.

28. Mr Andy Chan said that the Blueprint had set out long-term targets based

on various policies, initiatives and facilities that were planned to be implemented in stages. This included the quantity-based MSW charging scheme, Food Wise Hong Kong Campaign, enhanced recycling initiatives (such as PRSs, Community Green Stations, etc.) as well as commissioning of the Organic Resources Recovery Centres (ORRCs). In particular, the implementation of the MSW charging scheme would have a significant impact on reducing the overall waste disposal with reference to overseas experience. The Government had been working progressively towards the delivery of the targets and was committed to reviewing the targets as necessary in due course.

Item 3: Mainland's New Import Requirements on Recyclables and Upgrading of Hong Kong's Recycling Industry
(ACE-WM Paper 2/2018)

29. Mr Andy Chan briefed Members on the measures implemented by the Government to assist the local recycling industry and the community as a whole in rising to the challenges posed by the Mainland's tightened requirements on import recyclables.

Education and publicity

30. Apart from promoting waste reduction and recycling through radio and social media, a Member suggested that publicity and education efforts could be enhanced by collaborating with the Committee on Home-School Cooperation to reach out and promote environmental protection to parents and students.

Outreaching teams

31. A Member suggested the Government draw reference from the Community Planner System in Taiwan. The Government of Taipei City would train and designate community planners to targeted districts to promote waste recycling and reduction in the community. Mr Andy Chan said that the Government would take a more proactive role in enhancing community recycling support. As such, EPD had set up new outreaching teams as a means to further reaching out to the community to promote behavioural change in addition to the continuous waste reduction and recycling work promoted by the non-government organizations (NGOs) and educational institutions.

32. Mr Andy Chan said the setting up of new outreaching teams would be

conducted in phases. The outreaching teams would launch a pilot programme at two designated districts firstly, including paying regular visits to District Council members, property management companies and residents. The teams would review and advise how property management companies and residents could best practise waste source separation and clean recycling, and would even advise on the support and funding assistance available from EPD. The Government would review from time to time as the outreaching programme progressed with the aim to expanding the outreaching teams to cover all districts.

Publicity campaign on clean recycling

33. A Member considered that it would be rather impractical or inconvenient by asking the public to remove the plastic tags and rinse the empty waste plastic bottles on the street before putting them into the recycling bins under the new publicity campaign on clean recycling. Another Member said that the campaign on clean recycling proposing the public to distinguish three types of paper (i.e. paperboard, newspaper and office paper) and the two types of plastic bottles (i.e. containers for beverages and personal care products) was unnecessary as many recycling operators had the technology to separate different types of plastic in the recycling process.

34. In response, Mr Andy Chan agreed with the comments but said that some smaller recycling operators might not have the necessary equipment to sort different types of plastics. As such, the publicity campaign on clean recycling was aimed to educate the public on the best practical procedures on recycling as well as to encourage the public to upgrade the quality of recyclables to cope with the new challenges posed by the Mainland's policy. Mr Chan said that the signs on recycling bins indicating what should be recycled would be gradually replaced such that the public could better adapt to the new arrangements.

35. A Member opined that the Mainland's tightening requirements on importing recyclables should be viewed as an opportunity for the Government to review their needs and render necessary support in facilitating the sustainable development of the local recycling industry through upgrading their operational effectiveness and capacity.

Enhanced support for local recycling industries

36. Noting that the Ministry of Industry and Information Technology (MIIT)

of China had devised battery recycle policies to recycle value ingredients from spent battery, a Member enquired if the Government would consider collaborating with the MIIT to export local recycled batteries to the Mainland. In response, Mr Andy Chan said that while EPD did not have a regular communication with the MIIT, he commented that the export of waste batteries (chemical waste) to the Mainland was not allowed internationally unless with prior approval.

37. A Member suggested that landfill waste could be largely reduced if the local C&D waste could be recycled and reused for building projects in Hong Kong. He said that factories in the Mainland would produce and transport prefabricated building components to Hong Kong, and asked whether the C&D waste generated locally could be transported back to these Mainland factories for treatment on return journey as a means of reusing and recycling C&D waste with no additional transportation cost incurred. He further suggested the Government explore opportunities to communicate with the Mainland authorities on the relevant custom regulations to reduce waste disposed of at local landfills.

38. On a Member's suggestion of crushing recycled glass into glass powder as raw materials for producing concrete, Mr Andy Chan said that currently some glass containers were recycled at the EcoPark in Tuen Mun for this purpose. In addition, to promote glass bottle recycling, EPD was prepared to launch the PRS on glass beverage containers. The Government had newly appointed some contractors under open tendering to undertake waste glass container collection and treatment services in the territory. The collection networks would be progressively expanded to facilitate more public participation in glass bottle recycling.

39. A Member considered that the Government could take a more proactive role to support and enhance the development of the recycling industry. He suggested that fees collected from producers through PRS should be injected into local waste reduction and local recycling industry.

40. A Member remarked that it was important for the Government to provide policy support to assist the potential waste paper recycling operators to develop a sustainable business in Hong Kong in the long run. Mr Andy Chan replied that an open tender for setting up a recycling paper manufacturing facility at the EcoPark was invited in March 2018 and scheduled to be closed in June 2018. So far, the response was quite positive as the tender briefing was well attended with some representatives of major Mainland operators.

41. A Member suggested the Government explore opportunities to collaborate with the Mainland on developing an eco-industrial park. While the Mainland could provide the necessary land and labour, Hong Kong could contribute the capital and equipment. Mr Andy Chan said that the Government would review the concept and development of some existing eco-industrial parks in the Guangdong Province and would continue to adopt a multi-pronged approach in assisting the local recycling industry.

42. In response to the Chairperson's enquiry on the approximate amount of 'three paper' under the recent Clean Recycling Campaign, Mr Andy Chan said that about 800,000 tonnes of waste paper was recycled and exported to the Mainland in 2016. In addition, amongst the 2,000 tonnes of paper disposed of at landfills per day, around 1,000 tonnes belonged to the 'three paper' category. In relation to the Chairperson's further enquiry on the percentage of the two types of plastic bottles, Mr Chan replied that it was around 30% of the about 120,000 tonnes of plastic recyclables locally recovered in 2016. He supplemented that the Government had been targeting and according priority to encourage 'clean recycling of three types of paper and priority recovery of plastic bottles' with a view to increasing the overall recycling rate. EPD was also planning to introduce a scheme on collection of waste plastic bottles in districts with the aim of enhancing the cost effectiveness in handling and transporting of plastic recyclables.

43. In view of the Mainland's new requirements and its impact on the local recycling industry, the Chairperson invited EPD to seek views from this subcommittee and keep Members informed on matters directly related to waste matters in future.

EPD

Enhancing the provision of land for recycling industry

44. A Member appreciated the Government's efforts in conducting short-term, mid-term and long-term planning on waste management and encouraged EPD to continue identifying suitable site to facilitate the development of the local recycling and manufacturing facilities in order to meet with the more stringent Mainland requirements on importing recyclables. Mr Andy Chan said that given Hong Kong was a highly urbanized city as compared to other countries, it was relatively difficult to find land space for any proposed major waste treatment facilities. The Government had adopted a step-by-step approach for identifying suitable sites, consulting multiple stakeholders and bidding the necessary resources

through the established mechanism. EPD would continue looking into ways to enhance the provision of land space by further developing the EcoPark and to locate small recycling businesses to multi-storey buildings if possible. Mr Chan said the Government would expedite the process and would continue to seek views of the recycling industry. The Member commented that EPD should remain vigilant to look for opportunities for obtaining sizeable land plots for waste management and recycling in conjunction with the Government's initiatives for identifying and forming land for housing and other purposes.

Food Waste management

45. The Chairperson said that while food waste accounted for about 3,600 tonnes (36%) of the MSW disposed of at landfills every day, the recovery rate for food waste was less than 1%. Despite that ORRCs would receive and handle food waste generated from C&I establishments, each phase of the ORRC would have a daily treatment capacity of only around 200 and 300 tonnes. Given that domestic food waste was a major component of MSW disposed of, the Chairperson suggested the Government expedite the measures to enhance the recovery rate for food waste with a view to achieving the various waste reduction targets. She further suggested EPD draw reference from South Korea where a food waste recovery rate of 90% was achieved and the overseas experiences of converting food waste into biogas. Mr Andy Chan said that the Government had been according priority to reducing food waste and assured that EPD would draw up practical proposals to enhance the food waste reduction at source as well as recycling in due course.

Item 4: Any Other Business

46. There was no other business for discussion at the meeting.

Item 5: Date of next meeting

47. Members will be advised on the date and agenda for the next meeting in due course.

Waste Management Subcommittee Secretariat
May 2018