

**The Public Accounts Committee’s Public Hearing on “Reduction and recycling of food waste” (Chapter 2)  
of the Director of Audit’s Report No. 65  
on 12 December 2015**

**Opening Remarks by the Secretary for the Environment**

Chairman,

Introduction

The Environment Bureau (ENB) and the Environmental Protection Department (EPD) attach great importance to food waste management and look forward to the support and participation of the Legislative Council (LegCo) and the community, including government departments and public institutions, to implement the relevant initiatives effectively. We agree with the recommendations of the Audit Commission regarding the reduction and recycling of food waste. The followings are my responses to some major issues.

Government’s past efforts in the reduction of food waste

2. First of all, I would like to give a brief review on the Government’s past efforts in the reduction of food waste. Since 2005, the Government has put forward various measures and projects on the reduction and treatment of food waste in the policy papers on waste treatment, which include:

- (a) The “Policy Framework for the Management of Municipal Solid Waste (2005-2014)” published in 2005 proposed to recover about 500 tonnes of food waste generated from commercial and industrial (C&I) activities through source separation of food waste for biological treatment, such as composting and anaerobic digestion. Since then, the Government has implemented various pilot schemes promoting on-site food waste treatment and planned for the development of Organic Waste Treatment Facilities (OWTFs) Phase 1 and 2. For promoting on-site food waste treatment, ENB and the Education Bureau jointly invited all schools in the territory to sign a Green Lunch Charter, which encourage them to stop using disposable containers and adopt on-site meal portioning where possible to reduce food waste. The Environment and Conservation Fund (ECF) would provide subsidies for existing schools to install the necessary equipment, while the standard design of new schools will cater for the mode of on-site meal portioning. Moreover, there are the Food Waste Recycling Projects in Housing Estates, which subsidise private housing estates to source separate food waste for recycling to useful compost, and at the same time educate the public to reduce food waste. As for the planning of the OWTFs, the funding for the development of OWTF Phase 1 was approved by the LegCo Finance Committee (FC) in October 2014. The contract was awarded by EPD in mid-December 2014, and the facility is anticipated to commence operation in 2017. The environmental impact assessment and engineering feasibility study of OWTF Phase 2 were completed in end of 2013 and

2015 respectively. The tender preparation works are being conducted, and we intend to invite tender in 2016.

- (b) ENB has reported the progress of the relevant work in detail by submitting the paper “Updated background brief on management of municipal solid waste in Hong Kong” to the LegCo Panel on Environmental Affairs (EA Panel) in April 2009 and January 2011, as well as in the paper “Reduce, recycle and proper waste management” in March 2012.
- (c) In May 2013, ENB published the “Hong Kong Blueprint for Sustainable Use of Resources (2013-2022)”. Besides the various measures proposed earlier, the document also emphasises the importance of food waste reduction, the Food Wise Hong Kong Campaign (FW Campaign) and the OWTFs.
- (d) In February 2014, ENB published “A Food Waste and Yard Waste Plan for Hong Kong (2014-2022)” (the Food Waste Plan) which sets out four main strategies as the backbone to tackle the food waste challenge, namely reduction at source, food donation, food waste collection, and turning food waste into energy, with a target of reducing food waste disposal to landfills by 40% in 2022.
- (e) Since July 2014, the Environment and Conservation Fund (ECF) has been funding non-profit organisations (NGOs) in the recovery of surplus food for distribution to the needy in the community. The funded activities include collection of surplus and edible food from markets, retail shops and food

wholesalers. As of October 2015, the ECF has approved a total of 10 such projects with funding support of about \$15 million for the collection of around 950 tonnes of surplus food in two years, and donation to 700 000 headcounts.

3. The above shows that over the past decade, the Government has adopted a progressive approach in implementing various measures for enhancing community mobilisation and education, facilitating different sectors in practising food waste reduction and source separation, as well as fostering behavioural changes, so as to get ready for the large-scale food waste recycling activities in future. Building on the efforts made and experience gained in the past years, the current-term Government has further consolidated the relevant strategies and measures, with the Food Waste Plan launched last year to provide a clear and holistic approach and strategy for its future work.

#### Collaboration among government departments

4. The implementation of food waste reduction and recycling requires the concerted efforts of the C&I sector, educational bodies, relevant government departments and the general public. The FW Campaign has progressed from the initial launching stage to an expansion stage. We now focus on expanding the on-going major projects to further encourage public and community participation in food waste reduction. The Campaign will then enter a deepening stage with a view to further instilling a behavioural change, etc. We are rolling out a number of activities and initiatives, such as distributing and promoting the Good Practice Guides to the C&I sector to reduce the generation of food waste, launching the Food Waste (FW)

Charter Scheme and the Food Wise Eateries Scheme, placing APIs and advertisements, opening a Big Waster Facebook account and lending out the Big Waster mascot to appear at major events, distributing publicity materials, organising roving exhibitions in districts, providing food wise training workshops and talks, etc. Different stakeholders can determine the way and level of participation having regard to their own situation. We totally agree that government departments should play a leading role by setting a good example and actively participating in the FW Campaign. Signing the FW Charter is one, but not the only one of the ways for government departments to express their support. Departments can determine their actual way of participation based on their own circumstances. In fact, ENB and EPD have maintained liaison and cooperation with the relevant government departments. Through different channels, they have participated in various activities on food waste reduction and recycling, such as involving in the Food Wise Hong Kong Steering Committee to help the Committee devise the Good Practice Guides for different sectors, implementing measures on food waste reduction in departments. We will continue to encourage the relevant departments to participate in the FW Campaign, including signing the Charter as far as practicable. Out of the 12 departments mentioned in the Audit Report, ten have already signed the Charter. Some departments are in the role of a venue manager rather than a food waste producer. In that case, the Government will encourage these departments to implement food waste reduction by other suitable means, such as providing technical advice and other appropriate support to their tenants on food waste reduction.

5. ENB and EPD will continue to pursue more vigorously various components of the FW Campaign, including inviting more bureaux/departments, government-subsidised NGOs and private

organisations to sign the FW Charter, and promptly providing any necessary assistance to those interested in signing the Charter.

#### Quantities of food waste in recent years

6. It is mentioned in the Audit Report that the quantity of food waste disposed of increased from 1.18 million tonnes in 2004 to 1.33 million tonnes in 2013 (a 13% increase). I would like to point out that the increase mainly came from the food waste generated by the C&I sector. During this period, Hong Kong's annual Gross Domestic Product has increased from \$1,317 billion to \$2,132 billion (a 62% increase), and the annual number of visitors has increased from 22 million to 54 million (a 145% increase). These objective factors indicate that Hong Kong has experienced economic growth in this period, which to some extent resulted in an increased pressure from the food waste generated by the C&I sector.

7. Despite the continuous increase in economic activities and number of visitors in Hong Kong, the total amount of food waste disposed of in 2014 (about 1.329 million tonnes) did not show further increase as compared to 2013. Over the past two years, there has been noticeable change in the awareness and behaviours in the community, e.g. the habit of taking food home after meals or more participation of the C&I sector in food donation, etc. We will keep up our efforts in promoting further reduction in food waste among various sectors according to the strategies and course of action set out in the Food Waste Plan.

#### Development of food waste treatment and recycling facilities

8. In treating food waste, the Government has adopted a multi-pronged approach with focus on waste reduction at source to address the problem of disposing most of the food waste at landfills. The unavoidable food waste will be recovered and recycled as far as possible. We commissioned the Kowloon Bay Pilot Composting Plant (Pilot Plant) in August 2008 as the first educational and pilot project. Meanwhile, we also utilised the capacity of the Pilot Plant to launch the Food Waste Recycling Partnership Scheme (the Partnership Scheme), in collaboration with the C&I sector in June 2010, under which the source separated food waste was delivered to the Pilot Plant for recycling. Furthermore, we have also provided training and good food waste management guides for the frontline and management staff participating in the Partnership Scheme, so as to gain experience in source separation and collection of food waste, as well as to get fully prepared for large-scale food waste collection upon completion of the OWTFs.

9. It is also stated in the Audit Report that the actual treatment quantity of the Pilot Plant was significantly lower than the maximum capacity of 4 tpd of food waste from the C&I sector. I would like to respond to the issues of the trial process, actual experience and the nature of the Partnership Scheme as follows.

- (a) The Pilot Plant was the first pilot facility that EPD set up to work jointly with the C&I sector on promoting food waste reduction and source separation. The deliverables aimed at gathering experience and information on the collection and treatment of organic waste thus facilitating future food waste recycling when the large-scale OWTFs for C&I sector were

ready for commissioning in accordance with the plan in the 2005 Policy Framework in December 2005. These objectives were presented to the LegCo EA Panel on 27 April 2009 and 29 March 2010. As an educational and trial facility, the Pilot Plant was of a modest scale and adopted the aerobic composting technology that does not require complex engineering work. Furthermore, the actual quantity of source separated food waste sent to the Pilot Plant from the participating restaurants, markets and food manufacturers fluctuates depending on the daily operations and resources for practicing source separation.

- (b) The 4-tpd of source-separated food waste figure as stated in the EA Panel papers referred to total capacity of organic waste (including food waste, bulking agents (e.g. bark chips and saw dust) and premature compost) that the Pilot Plant could handle. The addition of bulking agents and premature compost was required to achieve the composting of food waste though the exact proportion of them to food waste was subject to trial. Given the focus of the Pilot Plant is to deal with “food waste”, the paper referred to “food waste” instead of making differentiation between food waste and organic waste, the latter includes food waste, bulking agents and premature compost. The contract between the Electrical and Mechanical Services Trading Fund and its contractor specified that the total treatment capacity of the Pilot Plant was 4 tpd (including bulking agents). In retrospect, it would have been more appropriate to use the term “organic waste” when referring to the treatment



capacity of this demonstration plant.

10. We will strengthen our existing efforts to encourage more C&I establishments to participate in the Partnership Scheme. We are now exploring with the Food and Environmental Hygiene Department (FEHD) to launch a pilot scheme at FEHD's markets to conduct pro-active food waste collection services which facilitate stall owners to place source-separated food waste into designated collection bins at designated times without having to leave their stalls. We will also reach out to more individual restaurants, hotels and shopping malls to engage their participation, and provide technical support, guidelines and training to the C&I sector to facilitate their effective implementation of food waste reduction, source separation and recycling.

11. Moreover, the construction of a private treatment facility at the EcoPark with a daily maximum capacity of 100 tonnes was completed. Funding for the government-built OWTF Phase 1 was approved by the LegCo in October 2014. The facility with a daily maximum capacity of 200 tonnes of food waste is under construction and is expected to commence operation in 2017. OWTF Phase 2 with a daily maximum capacity of 300 tonnes of food waste is located at Sha Ling in the North District. Its environmental impact assessment and engineering feasibility study were completed. Tender invitation of the project will commence in mid-2016. Meanwhile, we will keep in view the development of various technologies and researches, and consider incorporating successful experience into our future food waste management projects.

## Cost estimate for new works projects

12. It is revealed in the Audit Report that the Government has under-estimated the project cost in developing OWTF Phase 1 and should make improvement when implementing a works project in future.

13. I wish to point out that OWTF Phase 1 was the first-of-its-kind waste facilities in Hong Kong and there was no applicable cost-reference data, which allowed us to come up with an accurate cost estimate for the project. In our briefing to the EA Panel in November 2010, we already indicated in the discussion paper that the parallel-tendering approach would be adopted so that the Government could finalise the figures based on the tender prices received when submitting the proposal to the Public Works Subcommittee (PWSC) and the FC for seeking funding approval. As to why there is an increase in cost estimate for the project, we have fully explained and discussed the matter in the discussion paper submitted to the EA Panel in March 2014, as well as in the PWSC meeting in April 2014 and the FC meetings in July and October 2014.

14. In December 2014, we successfully awarded a design-build-operate contract for OWTF Phase 1. It has provided significant cost estimate reference data for future OWTF projects to allow the Government to come up with a more accurate cost estimate. As indicated in the Audit Report, we will take appropriate measures to ensure that significant work requirements are included in a consultancy agreement, and endeavour to make a reasonable cost estimate so that the Government can earmark sufficient funding for the project.

## Conclusion

15. Looking ahead, we will take all practicable steps to expedite the implementation of the measures set out in the 2014 Food Waste Plan.

16. The food waste treatment facility in Siu Ho Wan, Lantau Island, with a maximum treatment capacity of 200 tpd will be a particularly important facility for Hong Kong. The facility is scheduled for completion in 2017, and will come under public attention. In view of this, we are currently liaising with the business sector, gearing up for collaboration to make good use of the food waste treatment facility in Siu Ho Wan.

17. In parallel, we will continue to pursue more vigorously various components of the FW Campaign, consolidate the good experiences and practices of various parties, including the FW Charter signees, and share with them the experiences and practices through the network of the FW Campaign.

18. Chairman, ENB and EPD welcome comments from Members on the contents of the Audit Report and the Government's work on food waste reduction. My colleagues and I are also pleased to answer questions from Members to keep the Committee abreast of the progress of our work. Thank you, Chairman.

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