

## **The Environmental Levy Scheme for Plastic Shopping Bags – Related Statistics**

### **Purpose**

This paper presents our post-levy interim assessment of the environmental levy scheme for plastic shopping bags for information of the Waste Management Subcommittee of the Advisory Council on the Environment.

### **Background**

2. The environmental levy scheme for plastic shopping bags introduced under the Product Eco-responsibility Ordinance (Cap. 603) was launched on 7 July 2009. Under the levy scheme, registered retailers are required to charge their customers an amount of 50 cents as an environmental levy for each plastic shopping bag provided directly or indirectly to them.

3. The environmental levy scheme applies to a prescribed retailer who carries on a retail business at (i) 5 or more qualified retail outlets; or (ii) at least one qualified retail outlet that has a retail floor area of not less than 200 square metres. By “qualified retail outlet”, it refers to a retail outlet that offers all of the following three categories of goods for sale, namely (i) any food or drink; (ii) any medicine or first-aid item; and (iii) any personal hygiene or beauty product. As at end September 2009, there are a total of 41 prescribed retailers registered under the Product Eco-responsibility Ordinance (“registered retailers”), and these retailers operate about 3 000 qualified retail outlets that are subject to the levy scheme.

### **Related Statistics**

4. The environmental levy scheme on plastic shopping bags has implemented over four months since its launch in July 2009. To date, we had obtained two sets of statistics relevant to the scheme, which are (i)

pre-levy disposal figure of plastic shopping bags at landfills and (ii) the first quarterly levy income collected under the levy scheme. Details of the data and our analysis are set out below:

### Landfill Disposal of Plastic Shopping Bags

5. We conducted a landfill survey on disposal of plastic shopping bags prior to the launch of the environmental levy scheme to get a snapshot view of the situation. The findings summary is at the **Annex**. According to the survey, there is a marked decline in the disposal of plastic shopping bags since 2005. The per-capita disposal figure of plastic shopping bags is over 1.8 per person per day in 2009 (as compared to the per-capita disposal figure of 3 per person per day in 2005).

6. We believe the reduction in the number of plastic shopping bags disposed at landfill in 2009 over that in 2005 shows the enhanced publicity and public education, together with other complementary waste reduction campaigns and the voluntary initiatives by the retail sector over the past years have taken some effect. This notwithstanding, the per-capita disposal figure of 1.8 per person per day prior to the environmental levy scheme remains generally on the high side when compared with the situation of other jurisdictions. The corresponding figures are 0.9 in Ireland, 2.5 in Taiwan, 0.2 in San Francisco and 1.0 in Australia before any schemes were in place at these jurisdictions. This reaffirms the need for Hong Kong to adopt a more robust approach to tackling the problem of indiscriminate use of plastic shopping bags. Some green groups and retailers have estimated that the drop of use of plastic shopping bags at prescribed retailers after the launch of the environmental levy scheme is about 90%. This is in itself an impact that voluntary schemes may not achieve.

### Quarterly Levy Income

7. As required under the levy scheme, registered retailers have to submit to the Government quarterly returns setting out the number of plastic shopping bags distributed to customers in the non-exempted areas in all of their registered retail outlets as well as the amount of levy collected for such bags. The first quarterly returns covered the period between 7 July and 30 September 2009. During this period, registered retailers distributed some 13.46 million plastic shopping bags with a levy income totalling about \$6.7 million.

8. Based on the above, the projected full year figure is some 54

million plastic bags distributed by the prescribed retailers with levy income of about \$27 million. This may be translated to some 90% reduction in the number of plastic shopping bags to be issued by prescribed retailers based on the 2009 pre-levy survey. This scale of reduction is higher than the estimation we made in 2008 for an annual levy revenue of \$200 million<sup>1</sup>.

9. As an illustration, we can derive from the landfill survey findings that the retailers in the categories of supermarkets, convenience stores and medicare and cosmetics on average distributed about 5.37 million plastic shopping bags per day in 2005. With the host of waste reduction measures, publicity and public education as well as voluntary initiatives to enhance the Bringing Your Own Bags (BYOB) culture, it is projected that they distributed about 1.80 million plastic shopping bags a day in mid 2009, being a 66.5% reduction. Since the introduction of the environmental levy in July 2009, the returns in the first quarter show that the prescribed retailers on average distribute 157,000 plastic shopping bags daily<sup>2</sup>. It is estimated that there are around 2 800 retail outlets managed by prescribed retailers in the sectors of supermarket, convenience stores, medicare and cosmetics.

10. While the levy collected is substantially less than estimated, it is totally in line with our policy objective to engender the green lifestyle and BYOB culture. The lower the levy revenue level reflects the greater the positive impacts of the scheme.

### Impact on the Trade

11. The Hong Kong Retail Management Association (“HKRMA”) has earlier on raised concern on whether the environmental levy scheme would have impact on sales of the concerned trade. From the available statistics of the Monthly Survey of Retail Sales compiled by the Census and Statistics Department, the value of retail sales in supermarkets in July, August and September 2009 respectively registered an increase in the range of 0.6% to 2.6% over the corresponding period a year earlier. While these figures generally do not seem to suggest that the environmental levy scheme has discernible adverse impact on retail sales,

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<sup>1</sup> We assumed a 50% reduction in the distribution of plastic shopping bags from prescribed retailers and a further 50% exemption of plastic bags that do not fall under the statutory definition with an environmental levy up to \$200 million a year based on the 2005 survey figure.

<sup>2</sup> Under the Product Eco-responsibility Ordinance (Cap. 603), a prescribed retailer is a retailer who carries on a retail business at (i) 5 or more qualified retail outlets; or (ii) at least one qualified retail outlet that has a retail floor area of not less than 200 square metres.

we will continue to monitor the situation closely.

### **Way forward**

12. We are encouraged by the smooth launching and accomplishments of the scheme so far, and are thankful to registered retailers, frontline staff at the retail outlets, green groups and members of the public for their support. Despite these initial successes, we will keep in view of developments and will closely liaise with the trade to exchange views on the implementation of the levy scheme. We will also continue to support the green groups to sustaining our efforts in public education and publicity, including the promotion of BYOB as a day-to-day shopping habit to make an impact in the broader community beyond the current scope of the scheme.

13. Following the implementation of the levy scheme in July this year, we envisage that the number of plastic shopping bags disposed of at the landfills will substantially drop. The HKRMA has also suggested that the levy scheme should be further extended to cover all retail sectors as soon as possible. Despite good signs at this early stage, international experience is that monitoring over a longer period is required before a sustainable trend could be established. For this reason, we are preparing for a landfill survey on disposal of plastic shopping bags to be conducted in end 2009, and we also plan to conduct another one in mid 2010 to assess the full year impact. Findings of these surveys would provide statistical evidences on how reduced plastic bag use would be translated into reduction in landfill disposal, which would also be used for reference in the comprehensive review. We will take into account all relevant factors and views in formulating the way forward of the levy scheme.

14. Members are invited to take note of the content of this paper. We would also keep this Subcommittee updated of future development of the environmental levy scheme.

**Waste Management Policy Division  
Environmental Protection Department  
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## Annex

### Findings of the Landfill Survey on Disposal of Plastic Shopping Bags

Retailer Category	End 2005		Mid 2009	
	Mn/Yr	%	Mn/Yr	%
Supermarkets	1,267	14.58%	488	10.43%
Convenience Stores	499	5.74%	90	1.92%
Bakeries and Cake Shops	530	6.10%	262	5.60%
Cooked Food Outlets	387	4.45%	327	6.99%
Newspaper and Magazine Bags	298	3.43%	121	2.59%
Medicare and Cosmetic Bags	195	2.24%	79	1.69%
Department Stores and Home Accessories Shops	158	1.82%	48	1.03%
Fashion and Footwear Shops	106	1.22%	35	0.75%
Books, Stationeries, Gifts and Novelties Shops	61	0.70%	21	0.45%
Electrical and Telecom Shops	35	0.40%	10	0.21%
Others	5,155	59.31%	3,197	68.34%
<b>Total</b>	<b>8,691</b>	<b>100.00%</b>	<b>4,678</b>	<b>100.00%</b>

Note:

- Plastic shopping bag means a bag (i) that is made wholly or partly of plastic; and (ii) there is a handle, handle hole, perforated line for tearing out a handle hole, carrying string or strap, or any other carrying device on, or attached to, it .
- The pre-levy landfill survey conducted in 2009 also estimated the disposal of the following types of bags at the landfills (these figures are excluded from the above table) –
  - (a) Reusable Bags: 10 million per year;
  - (b) Paper Shopping Bags: 29 million per year; and
  - (c) Plastic Garbage Bags: 1135 million per year.