

## LCQ9: Recovery and recycling of waste glass

Following is a question by the Hon Chan Hak-kan and a written reply by the Secretary for the Environment, Mr Wong Kam-sing, in the Legislative Council today (January 8):

Question:

Regarding the recovery and recycling of waste glass, will the Government inform this Council:

(1) given that in response to some demonstrators recently making incendiary bombs by using waste glass bottles, the Government requested the glass management contractors (GMCs) to temporarily suspend the waste glass container collection services starting from November 16 last year, of the quantity of waste glass disposed of at landfills from that day onward to December 31 last year, and how such quantity compares with that for the same period of the preceding year; whether it will improve the design of the recycling bins to prevent the waste glass bottles inside such bins from being stolen; if so, of the details; if not, the reasons for that;

(2) whether it knows the respective monthly quantities of waste glass containers collected by GMCs in the catchment regions of (i) Hong Kong Island (including Islands District), (ii) New Territories and (iii) Kowloon, since the commencement of their respective contracts in November 2017 and May 2018 (set out in a table), as well as the relevant public expenditure;

(3) of the recovery rate of waste glass containers, and the respective percentages of waste glass containers turned into the following recycled uses, in each of the past three years: (i) eco-pavers, (ii) eco-cement, (iii) fill materials and (iv) making of new glass products after export; whether the Government will explore new uses of waste glass so as to increase the outlets for waste glass containers; if so, of the details; if not, the reasons for that;

(4) given that in response to some demonstrators' digging up bricks from pavements in recent months for blocking roads and hurling at police officers, the Highways Department will switch to using concrete as the paving material for some pavements, whether it has assessed how this move will affect the utilisation rate of eco-pavers;

(5) as the Environmental Protection Department (EPD) is undertaking preparatory work for the implementation of the Producer Responsibility Scheme on glass beverage containers, of the latest implementation timetable for the Scheme, and whether the relevant preparatory work has been hindered due to the recent social disturbances;

(6) of the number of organisations/companies, since the EPD launched the Glass Container Recycling Charter (Charter) in January last year to invite the various sectors in the community to join hands in promoting glass container recovery, that have signed the Charter, as well as the effectiveness of the Charter; and

(7) of the number of organisations currently subsidised by the Environment and Conservation Fund to undertake recycling of waste glass containers; the total amount of the relevant subsidies and the total quantity of waste glass recovered by them in each of the past three years; the quantity recovered since June last year, and whether it has been affected by the recent social disturbances; whether the Government has plans to continue subsidising such organisations to undertake waste glass recovery work in the coming three years; if so, whether it will make adjustments to the subsidy arrangements?

Reply:

President,

The Environmental Protection Department (EPD) has appointed Glass Management Contractors (GMCs) to undertake the collection and treatment services for waste glass containers progressively across the territory since 2018. The GMCs provide recycling bins and associated collection services to parties or organisations that are interested in participating in waste glass container recycling, including residential estates, catering outlets, shopping malls, hotels, industrial and commercial premises, and government facilities.

My reply to the question raised by the Hon Chan Hak-kan is as follows:

(1) The total quantity of waste glass containers disposed of at landfills in 2018 was 77 400 tonnes. Relevant statistics for 2019 are still under compilation.

Glass containers are fragile and may cause danger to the public if they are not handled properly. For the sake of safety, most glass container recycling bins are equipped with a lock to prevent users or others from directly contacting or tampering with the waste glass containers inside.

However, in view of continued escalation of violent and illegal attacks in the society earlier, the Government temporarily suspended waste glass container collection service to better safeguard public safety. We would make suitable arrangements for waste glass container collection service at different locations subject to the social situation.

(2) The glass management contracts for Hong Kong Island (including Islands District) and the New Territories came into effect in November 2017, and the contractor has been providing waste glass container collection service since January 2018. The contract for Kowloon came into effect in May 2018, and the contractor has been providing collection service since July 2018. As at October 2019, the quantities of waste glass containers collected under the

three glass management contracts are as follows:

Glass management contract	Total quantity of waste glass containers collected in 2018 (tonnes)	Quantity of waste glass containers collected in 2019 (as at October 2019) (tonnes)
Hong Kong Island (including Islands District)	4 063	7 174
New Territories	3 600	6 214
Kowloon	1 913 (From July onwards)	5 736

Under the contracts, the service fees payable to the GMCs by the Government are primarily calculated based on the tonnage of collected waste glass containers that are treated. As at October 2019, the service fees calculated based on the quantities treated under the three glass management contracts are as follows:

Glass management contract	Total service fee calculated based on the quantity treated (HK\$ million)
Hong Kong Island (including Islands District)	22.85
New Territories	17.9
Kowloon	7.32

(3) The recovery rates of waste glass containers in the past three years are as follows:

Year	Recovery rate of waste glass containers
2017	12.1%

2018	16.3%
2019	Under compilation

From the commencement of respective glass management contracts up to October 2019, the major recycling outlets for the waste glass containers collected and treated by the GMCs are as follows:

Outlets for recycling	Quantity (tonnes)	Percentage
Production of cement	6 264	27 per cent
Production of eco-pavers	3 612	16 per cent
Exported abroad	2 832	12 per cent
Used as fill materials in local works projects	10 427	45 per cent
Total	23 135	100 per cent

Under the glass management contracts, the two GMCs are required to properly treat the waste glass containers and then arrange for their reuse and recycling. Currently, glass containers recovered and treated locally may be used for producing cement and eco-pavers, while some are exported for recycling. The recycled glass materials are also used as fill materials in public works projects. These outlets can absorb the glass materials recovered locally in full. Meanwhile, we have also encouraged the GMCs to continue exploring other outlets for recycled glass materials, such as the production of decorative tiles or other building materials.

(4) In pursuing green procurement in the Government, the EPD has been encouraging bureaux/departments to incorporate green specifications/features during procurement, including the use of recycled and other green materials in public works projects. When reinstating pavements where paving blocks were removed by protestors, the Highways Department will, taking into account the practical circumstances, consider adopting suitable paving materials, and will also consider using green materials where practicable. Even if there is reduced use of eco-pavers, the GMCs' established recycling outlets can sufficiently absorb the recycled glass materials generated in Hong Kong.

(5) We are preparing the subsidiary legislation concerned to provide for the

operational details for the implementation of the scheme. We plan to submit the subsidiary legislation for the Legislative Council (LegCo)'s scrutiny in 2020, and the actual implementation time would depend on the progress of relevant work of the LegCo.

(6) The EPD launched the Glass Container Recycling Charter (Charter) in January 2019. As at December 2019, about 980 participants have signed the Charter, including housing estates, shopping malls, hotels, restaurants and bars, commercial and industrial buildings, and about 30 per cent of them were new participants in waste glass container recycling. The awareness of the participants in waste glass container recycling has enhanced.

(7) To avoid overlapping of services with the glass management contracts awarded by the EPD, the Environment and Conservation Fund (ECF) has stopped approving new projects on waste glass container recovery since the second half of 2016. Projects approved by the ECF previously had been gradually taken over by the respective GMCs, which would continue to provide free collection and treatment services for waste glass containers in the districts concerned. The GMC of Hong Kong Island and the New Territories have taken over all relevant ECF projects since May 2018, and that of Kowloon in July 2018. Currently, the ECF does not provide direct subsidy to projects on waste glass container recovery.