



33/F, Revenue Tower, 5 Gloucester Road, Wan Chai, Hong Kong
 香港灣仔告士打道 5 號稅務大樓 33 樓

ACE-WM Paper 1/2021

For discussion on 29 March 2021

Monitoring of Solid Waste in Hong Kong 2019

Introduction

This paper presents the statistics on disposal and recovery/recycling of solid waste generated in Hong Kong in 2019.

Total solid waste

2. Total solid waste includes municipal solid waste (MSW), overall construction waste and special waste. Within MSW, there are two waste categories, namely domestic waste as well as commercial and industrial (C&I) waste.

3. In 2019, the total quantity of solid waste disposed of at the strategic landfills was 15,637 tonnes per day (tpd), which had decreased by 2.8% as compared to 2018. **Table 1** below shows the disposal quantities of various components of solid waste and their annual growth rates.

Table 1: Disposal of solid waste at landfills

Solid waste	Disposal quantity (tpd)		Year-on-year change (%) ⁽¹⁾
	2018	2019	
Municipal Solid Waste	11,428	11,057	-3.2%
● Domestic waste	6,712	6,554	-2.4%
● C&I Waste	4,716	4,503	-4.5%
Overall construction waste	4,081	3,946	-3.3%

Special waste ⁽²⁾	587	635	+8.1%
Total⁽³⁾	16,096	15,637	-2.8%

- (1) Year-on-year change is calculated based on the exact amount of solid waste before rounding off.
- (2) Special waste includes dewatered sludge, dewatered waterworks sludge, incineration ash and stabilized residue, sewage works screenings, livestock waste, waste tyres, etc.
- (3) Figures may not add up to total due to rounding off.

Municipal Solid Waste (MSW)

MSW generation

4. The quantity of MSW generation in 2019 was 5.67 million tonnes, which had decreased by 4.6% as compared to 2018.

MSW disposal

5. In 2019, the quantity of MSW disposal was 11,057 tpd, which had decreased by 3.2% as compared to 2018 (**Table 1**). The quantity of domestic waste disposal was 6,554 tpd (59% of MSW disposal), which had decreased by 2.4% as compared to 2018. In parallel, the quantity of C&I waste disposal at landfills was 4,503 tpd, representing an annual decrease of 4.5%.

MSW per capita disposal rate

6. As shown in **Table 2**, discounting the factor of population growth, the per capita disposal rate of MSW was 1.47 kg/person/day in 2019, compared to 1.53 kg/person/day in 2018. The reduction was partly attributed to the local social unrest which severely hit consumption-related activities, leading to a contraction of local economy in the second half of 2019 (the real GDP dropped by 1.2% year-on-year in 2019). Besides, the weakened demand from markets outside Hong Kong for certain types of recyclables and the tightened control of imported recyclables by certain economies resulted in a drop in recovery quantity which in turn might have driven up the total disposal quantity.

Table 2: MSW Per capita disposal rate

Waste category	Per capita disposal rate (kg/person/day)	
	2018	2019
MSW	1.53	1.47
Domestic waste	0.90	0.87
C&I waste	0.63	0.60

MSW disposal by waste type

7. **Table 3** shows the disposal quantities by waste types. Food waste is the major component of MSW in Hong Kong, which amounted to 30% of the total MSW disposal quantity in 2019. A total of 3,353 tpd of food waste was disposed of in landfills in 2019, which had decreased by 5.9% as compared to 2018.

8. Following food waste, waste paper and waste plastics are the second and third largest constituents of MSW, taking up 24% and 21% of MSW disposal in 2019 respectively. The disposal quantity of waste paper remained broadly the same as compared to 2018, whilst that of waste plastics fell by 1.0% as compared to 2018.

Table 3: Quantity of MSW disposal (by waste type)

Waste type	Disposal quantity (tpd)		Year-on-year change (%)
	2018	2019	
Paper	2,702	2,704	+0.1%
Plastics	2,343	2,320	-1.0%
Ferrous Metals	218	207	-5.1%
Non-Ferrous Metals	61	49	-19.0%
Glass	300	253	-15.8%
Textiles	392	339	-13.5%
Wood	427	348	-18.4%
Food Waste	3,565	3,353	-5.9%
Electrical and Electronic Equipment	67	59	-12.0%
Others ⁽¹⁾	1,352	1,424	+5.3%
Total ⁽²⁾	11,428	11,057	-3.2%

(1) Others include bulky items and other miscellaneous waste materials.

(2) Figures may not add up to total due to rounding off.

MSW resource recovery

9. The quantity of MSW recovered in 2019 was 1.64 million tonnes, representing a decrease of 7.8% compared with 2018. Most of the recovered materials (about 90%) were transported to the Mainland and other economies for recycling, with a total export value of recyclable materials of \$5.8 billion.

MSW recovery rate

10. In 2019, the overall MSW recovery rate was 29%, which decreased from 30% in 2018. The domestic waste recovery rate was 21%, while that of C&I waste was 38%. The challenging conditions and decline of commodity markets outside Hong Kong that lasted for years have had a dampening effect on the demand for local recyclables. Moreover, nearby economies have tightened their control regimes in recent years. Local recyclables not meeting standards could no longer enter such places for further processing.

MSW resource recovery by type

11. **Table 4** shows the quantities of individual types of recovered recyclables from MSW in the past two years, including recyclables absorbed by local recycling industries or transported to other economies.

12. As metal recyclables are highly reusable and relatively valuable in markets outside Hong Kong, there are strong economic incentives for the industry to recover metal waste. Among all recyclable types, metal recyclables have the highest recovery rate at 91% in 2019.

13. In response to the tightening of import control of recyclables by the Mainland, the local plastic recycling industry has gradually shifted its mode of operation from the previous simple compression process to the recycling of plastic recyclables into raw materials or products. As a result, the quantity of plastic recyclables recycled locally increased by 33.2% in 2019 as compared to 2018. In addition, as the control of transboundary movements of plastic wastes has tightened under the Basel Convention Plastic Waste Amendment starting from 2021, the local recycling industry needs time to adjust and adapt to such change affecting the global trade market as a whole.

14. Separately, paper recyclables' recovery quantity has continued to trend downwards in recent years and decreased by 23.3% in 2019 as compared to 2018.

Table 4: Quantity of recyclables recovered from MSW (by type)

Recyclable type	Recovery quantity (Thousand tonnes) ⁽¹⁾		Year-on-year change (%)
	2018	2019	
Paper	695	532	-23.3%
Plastics	64	77	+20.0%
Ferrous Metals	789	754	-4.3%
Non-Ferrous Metals	127	137	+8.1%
Glass ⁽²⁾	15	21	+39.0%
Textiles	6	7	+16.9%
Wood	6	7	+22.0%
Food Waste	27	46	+70.5%
Electrical and Electronic Equipment	42	47	+13.0%
Others ⁽³⁾	7	9	+29.7%
Total ⁽⁴⁾	1,778	1,639	-7.8%

- (1) Figures include recyclables absorbed by local recycling industries and transported to other economies for recycling. Those originated from construction and renovation activities were excluded.
- (2) Glass beverage bottles recovered for reuse through deposit-and-refund system operated by local beverage manufacturers are not included.
- (3) Quantity includes recycling of yard waste as well as reuse, retreading and recycling of vehicle tyres and local retreading of aircraft tyres. Waste tyres disposed of at landfills are categorised under disposal of special waste, as waste tyres are shredded or cut prior to disposal at landfills.
- (4) Figures may not add up to total due to rounding off.

Overall Construction Waste

15. In 2019, the quantity of overall construction waste landfilled was 3,946 tpd, which decreased by 3.3% as compared to 2018 (**Table 1**). The consecutive decrease in the past few years could be partly attributable to the increase in construction waste disposal charges effective from April 2017, strengthening incentive for the trade to reduce and reuse construction and demolition materials and reduction in disposal.

16. Most inert materials in the construction waste generated were delivered to the public fill reception facilities and other outlets for direct reuse. The reuse rate has remained at above 90% in recent years and was 92% in 2019.

Special Waste

17. In 2019, the quantity of special waste disposed of at landfills was 635 tpd, which increased by 8.1% as compared with 2018 (**Table 1**). Following the commissioning of the Sludge Treatment Facility (T•PARK) in Tuen Mun in April 2015, the disposal quantity of dewatered sludges has recorded a cumulative reduction of 88% compared with 2014. The growth in special waste disposed of at landfills in 2019 was mainly due to the increase in condemned goods¹.

18. For more detailed statistics, Members can refer to the publication “Monitoring of Solid Waste in Hong Kong: Waste Statistics for 2019”, available on: https://www.wastereduction.gov.hk/en/assistancewizard/waste_red_sat.htm.

Environmental Protection Department March 2021

¹ According to the administrative records of EPD’s disposal facilities, condemned goods collected in 2019 were mainly confiscated goods collected by other government departments, such as Customs and Excise Department and Food and Environmental Hygiene Department, when performing their duties.