

2014 Waste Statistics

Purpose

This paper aims at briefly presenting the Waste Statistics of Hong Kong in 2014.

Disposal of Total Solid Waste

2. In 2014, the total quantity of solid waste (including municipal solid waste (MSW), overall construction waste, dewatered sludge and others) disposed of at the strategic landfills was 5.42 million tonnes, which has increased by 3.8% as compared to 2013 (See **Annex 1**). The increase of solid waste was mainly due to the rising of municipal solid waste and overall construction waste

3. In 2014, the quantity of MSW disposal was 3.57 million tonnes, which has increased by 2.5% as compared to 2013 (See **Annex 1**). The quantity of domestic waste disposal was 2.34 million tonnes, which has increased by 0.9% as compared to 2013 but registered a cumulative drop of 9% as compared to 2004, reflecting the effective territory-wide programme on Source Separation of Domestic Waste. In addition, the quantity of commercial and industrial (C&I) waste disposal at landfills was 1.23 million tonnes, increasing by 5.5% when compared to 2013.

4. In general, waste disposal closely relates to the standard of living. Discounting the factor of population growth, and looking at the figures from a medium range perspective, the disposal rate of MSW was 1.35 kg/person/day in 2014 (See **Annex 3**), slightly lower than the level before the implementation of the Policy Framework for the Management of Municipal Solid Waste (1.37 kg/person/day in 2004). Meanwhile, the disposal rate of domestic waste was 0.89 kg/person/day in 2014, which decreased from 1.03 kg/person/day in 2004, reflecting the effectiveness

of territory-wide programme on Source Separation of Domestic Waste. Nevertheless, there is still room for improvement as compared with the equivalent statistics of other places, such as South Korea (0.39 kg), Taiwan (0.38 kg), Germany (0.60 kg) and Japan (0.76 kg).

5. Food waste is the major component of MSW in Hong Kong, which amounted to 37% of the total MSW quantity in 2014. A total quantity of 1.33 million tonnes (3,640 tpd) of food waste was landfilled in 2014, which has decreased by 0.2% as compared to 2013. The decrease was driven by the reduction in domestic food waste of 1.4%, more than offsetting the rising commercial and industrial (C&I) food waste disposal (+3.0%). Although C&I food waste was still on the rise in 2014, its growth has markedly moderated from 23.6% in 2013. Since the Food Wise Campaign had only started in 2013, the outcome may take some time to fully effect. Please refer to **Annex 4** for the disposal quantities of other individual waste types.

6. In 2014, the quantity of overall construction waste landfilled was 1.44 million tonnes, which has increased by 9.8% as compared to 2013. Since the implementation of the Construction Waste Disposal Charging Scheme in 2006, overall construction waste landfilled has significantly dropped by about 40%. In recent years, the overall construction waste landfilled has been fluctuating in a narrower range. (See **Annex 6**).

Recovery of Total Solid Waste

7. The quantity of MSW recovered in 2014 was 2.05 million tonnes, which has increased by 2.2% as compared to 2013, and 98% of the recovered materials were exported to the Mainland and other countries for recycling. The export value of recyclable materials was \$5.5 billion. Please refer to **Annex 5** for the quantities of individual types of recovered materials.

8. The locally recycled amount of plastic waste was 98.7 thousand tonnes in 2014, which decreased by 59% compared with the figure in 2013 (242.7 thousand tonnes). Against the backdrop of falling global oil prices since the summer of 2014, virgin plastic producers using oil as their primary feedstock could enjoy a significant reduction in their

production costs. With a smaller price difference between new plastics and recycled plastics, more plastic container makers (such as bottle makers) preferred the former to the latter. In fact, this decrease in demand for recycled plastics has adversely affected not only plastic recyclers in Hong Kong, but also plastic recyclers around the world.

9. There was no locally recycled paper in 2014. As pointed out by several local recyclers, the lower profit margin of paper recyclables recycling as well as the subdued local and regional economic growths in 2014 had resulted in an unfavorable operating environment for them.

10. In 2014, the locally recycled amount of wood recyclables increased by 191% year-on-year to 3.2 thousand tonnes. The quantity of the wood recyclables locally recycled in Hong Kong in fact has risen for three consecutive years, from 0.1 thousand tonnes in 2011 to 3.2 thousand tonnes in 2014. Over the same period, the quantity of wood recyclables exported for recycling decreased from 17.6 thousand tonnes to 3.1 thousand tonnes. The sustained development of EcoPark by the Government and the increasing public awareness of environmental protection contributed to the expansion of wood recycling in Hong Kong.

11. Most inert construction materials in the construction waste generated was delivered to the public fill reception facilities and other outlets for reuse in the past few years. The reuse rate was 93% in 2014, and has remained at above 90% in recent years. It indicates the construction trade has been taking active steps in separating usable materials for recycling.

Waste Recovery Rate

12. In 2014, the overall MSW recovery rate was 37%. The domestic waste recovery rate was 26% (**Annex 2**), which has increased from 24% in 2013. As the recyclables from C&I sources are generally more uniform and less contaminated than those from domestic source, the C&I recovery rate was at a relatively high performance yielding 50%. These were mainly attributed to the implementation of the source separation of waste programmes initiated by the Government and the active participation by the public and various trades.

13. As compared to other areas on the same basis of calculation, the MSW recovery rate in Hong Kong is lower than Taiwan (56%), South Korea (59%) and Germany (65%), but higher than United States (34%) and Japan (21%), indicating that our performance is not inferior.

Environmental Protection Department
January 2016

Annex 1: Disposal of Solid Waste at Landfills

Year	2013	2014	Increase/ decrease % ⁽¹⁾
	(Unit: million tonnes)		
Municipal Solid Waste	3.48	3.57	+2.5%
(Domestic Waste)	2.32	2.34	+0.9%
(Commercial and Industrial Waste)	1.16	1.23	+5.5%
Overall Construction Waste	1.31	1.44	+9.8%
Dewatered Sludge	0.35	0.32	-7.1%
Others	0.08	0.09	+13.5%
Total⁽²⁾	5.22	5.42	+3.8%

(1) Percentage change is calculated based on exact amount of solid waste before rounding off.

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

Annex 2: Municipal Solid Waste Generation, Recovery & Disposal

Year	2008	2009	2010	2011	2012	2013	2014
Economic Growth ^(a)	+2.1%	-2.5%	+6.8%	+4.8%	+1.7%	+3.1%	+2.5%
Population Increase ^(b)	+0.6%	+0.2%	+0.7%	+0.7%	+1.2%	+0.5%	+0.8%

(a) Based on the GDP growth in real terms updated by C&SD in August 2015.

(b) Based on the mid-year population growth rates updated by C&SD in August 2015.

Year	2008	2009	2010	2011	2012	2013	2014
	(Unit: million tonnes) Increase / decrease % ⁽³⁾						
Quantity of Municipal Solid Waste - Generation ⁽¹⁾	6.44 (+4.6%)	6.45 (+0.1%)	6.93 (+7.4%)	6.30 (-9.1%)	5.56 (-11.8%)	5.49 (-1.2%)	5.62 (+2.4%)
Quantity of Domestic Waste - Generation ⁽¹⁾	3.23 (-3.5%)	3.36 (+4.0%)	3.75 (+11.4%)	3.50 (-6.5%)	3.21 (-8.4%)	3.06 (-4.7%)	3.18 (+4.0%)
Quantity of Commercial & Industrial Waste - Generation ⁽¹⁾	3.21 (+14.1%)	3.09 (-3.8%)	3.18 (+3.0%)	2.80 (-12.0%)	2.35 (-16.1%)	2.43 (+3.6%)	2.44 (+0.3%)
Total Municipal Solid Waste Recovered for Recycling	3.14 (+11.8%)	3.18 (+1.2%)	3.60 (+13.3%)	3.02 (-16.2%)	2.16 (-28.4%)	2.01 (-7.1%)	2.05 (+2.2%)
Recovery rate of Municipal Solid Waste	49%	49%	52%	48%	39%	37%	37%
Recovery rate of Domestic Waste	31%	35%	40%	38%	28%	24%	26%
Recovery rate of Commercial & Industrial Waste	67%	65%	66%	61%	53%	52%	50%
Quantity of Municipal Solid Waste Disposal ⁽²⁾	3.30 (-1.5%)	3.27 (-0.9%)	3.33 (+1.7%)	3.28 (-1.3%)	3.40 (+3.4%)	3.48 (+2.6%)	3.57 (+2.5%)
Quantity of Domestic Waste Disposal	2.23 (-4.3%)	2.20 (-1.4%)	2.24 (+2.0%)	2.18 (-2.7%)	2.30 (+5.5%)	2.32 (+0.9%)	2.34 (+0.9%)
Quantity of Commercial and Industrial Waste Disposal	1.08 (+4.9%)	1.08 (+0.0%)	1.09 (+1.1%)	1.10 (+1.5%)	1.09 (-0.8%)	1.16 (+6.3%)	1.23 (+5.5%)

(1) The generation quantity of municipal solid waste is the sum of disposal and recovery quantities. This figure is indicative and for reference only as the recovery quantity of the municipal solid waste cannot encompass all recycling activities.

- (2) Figures may not add up to total due to rounding off.
 (3) Percentage change is calculated based on exact amount of solid waste before rounding off.

**Annex 3: Generation, Recovery and Disposal of Municipal Solid Waste
 Per Capita**

Year	2008	2009	2010	2011	2012	2013	2014
	(Unit: kg/person/day)						
Per Capita Generation of Municipal Solid Waste ⁽¹⁾	2.53	2.54	2.70	2.44	2.12	2.09	2.13
Per Capita Recovery of Municipal Solid Waste	1.23	1.25	1.41	1.17	0.83	0.77	0.78
Recovery Rate of Municipal Solid Waste	49%	49%	52%	48%	39%	37%	37%
Per Capita Disposal of Municipal Solid Waste	1.30	1.29	1.30	1.27	1.30	1.33	1.35
Per Capita Disposal of Domestic Waste	0.87	0.86	0.87	0.84	0.88	0.88	0.89
Per Capita Disposal of Commercial and Industrial Waste	0.42	0.42	0.42	0.43	0.42	0.44	0.46

- (1) The generation quantity of municipal solid waste is the sum of disposal and recovery quantities. This figure is indicative and for reference only as the recovery quantity of the municipal solid waste cannot encompass all recycling activities.
 (2) There were 366 days for years 2008 and 2012.

Annex 4: Quantity of MSW Disposal (by type)

Year	2008	2009	2010	2011	2012	2013	2014
	(Unit: thousand tonnes)						
Paper	803 (-7.0%)	753 (-6.2%)	732 (-2.9%)	705 (-3.6%)	697 (-1.1%)	666 (-4.5%)	702 (5.4%)
Plastics	623 (3.0%)	622 (-0.1%)	708 (13.8%)	618 (-12.7%)	668 (8.1%)	681 (1.9%)	736 (8.0%)
Ferrous Metals	58 (12.3%)	48 (-17.3%)	49 (2.0%)	52 (7.2%)	70 (32.9%)	53 (-24.5%)	57 (7.5%)
Non-Ferrous Metals	22 (24.5%)	14 (-36.3%)	15 (12.4%)	14 (-9.0%)	18 (25.6%)	12 (-31.5%)	20 (63.9%)
Glass	140 (5.9%)	117 (-16.5%)	136 (16.5%)	101 (-25.8%)	106 (4.5%)	129 (21.8%)	104 (-19.3%)
Textiles	108 (29.5%)	92 (-14.9%)	85 (-7.4%)	79 (-7.0%)	107 (35.0%)	99 (-7.9%)	107 (8.3%)
Wood	143 (13.7%)	110 (-23.2%)	98 (-10.4%)	105 (7.2%)	128 (21.3%)	134 (5.3%)	116 (-13.7%)
Food Waste	1,096 (-8.1%)	1,197 (9.3%)	1,181 (-1.3%)	1,308 (10.7%)	1,221 (-6.6%)	1,331 (9.0%)	1,329 (-0.2%)
Electrical and Electronic Equipment	13 (27.7%)	8 (-39.6%)	13 (72.6%)	9 (-33.7%)	14 (60.2%)	15 (10.1%)	15 (-3.5%)
Others ⁽¹⁾	296 (5.4%)	310 (4.6%)	308 (-0.7%)	291 (-5.5%)	367 (26.2%)	364 (-0.7%)	386 (6.0%)
Total ⁽²⁾	3,302 (-1.5%)	3,271 (-0.9%)	3,327 (1.7%)	3,283 (-1.3%)	3,396 (3.4%)	3,485 (2.6%)	3,570 (2.5%)

(1) Others include bulky items directly disposed of at landfills and other miscellaneous waste materials.

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

(3) Figures in brackets are year-on-year percentage changes.

**Annex 5: Quantity of Recyclable Materials Recovered from MSW
(by type)**

Year	2008	2009	2010	2011	2012	2013	2014
	(Unit: thousand tonnes)						
Paper	1,091 (-1.0%)	1,027 (-5.9%)	1,195 (16.3%)	1,278 (7.0%)	1,162 (-9.1%)	1,035 (-11.0%)	948 (-8.4%)
Plastics	1,023 (24.8%)	1,211 (18.3%)	1,577 (30.3%)	843 (-46.5%)	317 (-62.5%)	243 (-23.3%)	99 (-59.4%)
Ferrous Metals ⁽¹⁾	793 (33.5%)	733 (-7.5%)	566 (-22.9%)	667 (18.0%)	500 (-25.1%)	523 (4.7%)	845 (61.6%)
Non-Ferrous Metals	140 (-24.8%)	101 (-28.0%)	155 (53.3%)	115 (-25.7%)	78 (-32.1%)	79 (0.6%)	76 (-3.9%)
Glass ⁽²⁾	1 (16.2%)	3 (87.7%)	5 (63.9%)	5 (5.1%)	18 (283.7%)	10 (-44.4%)	8 (-17.2%)
Textiles	10 (-32.0%)	16 (64.8%)	20 (21.6%)	11 (-45.8%)	4 (-64.8%)	7 (88.5%)	4 (-41.1%)
Wood	18 (-14.2%)	17 (-4.0%)	17 (-1.4%)	18 (6.2%)	9 (-49.1%)	6 (-32.2%)	6 (3.2%)
Food Waste	(NA)	(NA)	(NA)	0.6 ⁽³⁾ (NA)	7 (1,092.5%)	29 (326.9%)	7 (-75.7%)
Electrical and Electronic Equipment ⁽⁴⁾	59 (-0.3%)	64 (9.4%)	61 (-5.3%)	67 (9.5%)	56 (-16.0%)	56 (-0.4%)	56 (-0.5%)
Others ⁽⁵⁾	7 (-46.6%)	9 (28.7%)	10 (6.4%)	15 (54.2%)	12 (-19.2%)	22 (80.8%)	5 (-78.8%)
Total ⁽⁶⁾	3,143 (11.8%)	3,181 (1.2%)	3,603 (13.3%)	3,019 (-16.2%)	2,163 (-28.4%)	2,009 (-7.1%)	2,053 (2.2%)

N/A – Not available

- (1) 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) The quantity refers to food waste recycled at EPD's pilot composting facility at Kowloon Bay.
- (4) The volume of waste electrical and electronic equipment recovered for recycling is compiled from results of a biennial survey on "Generation & Disposal Practice of Used/ End-of-Life Electrical & Electronic Equipment and Batteries in Hong Kong" commissioned by EPD.
- (5) Quantity includes reuse, retreading and recycling of waste tyres and local retreading of aircraft tyres
- (6) Figures may not add up to total due to rounding off.
- (7) Figures in brackets are year-on-year percentage changes.

Annex 6: Recovery Rate of Recyclable Materials Recovered from MSW
(by type)

Year	2008	2009	2010	2011	2012	2013	2014
Paper	57.6%	57.7%	62.0%	64.5%	62.5%	60.9%	57.5%
Plastics	62.2%	66.0%	69.0%	57.7%	32.1%	26.3%	11.8%
Ferrous metals	93.2%	93.9%	92.0%	92.7%	87.8%	90.9%	93.7%
Non-ferrous metals	86.7%	88.0%	90.9%	89.1%	81.5%	86.6%	79.2%
Glass	1.0%	2.3%	3.2%	4.5%	14.7%	7.3%	7.5%
Textiles	8.4%	15.1%	18.9%	12.0%	3.4%	6.8%	3.8%
Wood	11.0%	13.4%	14.5%	14.4%	6.6%	4.3%	5.2%
Food Waste	-	-	-	0.0%	0.5%	2.1%	0.5%
Electrical and electronic equipment	82.4%	89.3%	82.3%	88.5%	80.0%	78.4%	78.9%
Total	48.8%	49.3%	52.0%	47.9%	38.9%	36.6%	36.5%

Annex 7: Construction Waste Disposal at Landfills

