

2013 Waste Statistics

Purpose

This paper aims at briefly presenting the Waste Statistics of Hong Kong in 2013.

Disposal of Total Solid Waste

2. In 2013, the total quantity of solid waste (including municipal solid waste (MSW), construction waste, dewatered sludge and others) disposed of at the strategic landfills was 5.22 million tonnes, which increased by 3.1% compared with the figure in 2012 (See **Annex 1**). The increase in total solid waste was mainly due to the rising of MSW and construction waste.

3. The quantity of MSW disposal was 3.48 million tonnes in 2013, which increased by 2.6% compared with the figure in 2012 (See **Annex 1**). Within MSW, the quantity of domestic waste disposal was 2.32 million tonnes, which increased by 1% compared with the figure in 2012, but it registered a cumulative drop of 10% compared with the level in 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 of at landfills was 1.16 million tonnes, which increased by 6% compared with the figure in 2012.

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 1.33 kg/person/day in 2013 (See **Annex 3**), which decreased by 3.0% compared with 1.37 kg/person/day in 2004. At the same time, the disposal rate of domestic waste was 0.88 kg/person/day in 2013, 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 (0.39 kg) and Germany (0.60 kg).

5. Food waste is the major component of MSW in Hong Kong, which amounted to 38% of the MSW in 2013. A total quantity of 1.33 million tonnes (3,648 tpd) of food waste was landfilled in 2013, which increased by 9.0% compared with the figure in 2012. The increase was more on commercial and industrial food waste (+24%) than on domestic food waste (+5%). Since the Food Wise Campaign had only started in 2013, the outcome may take some time to effect. Please refer to **Annex 4** for the disposal quantities of other individual waste types.

6. The quantity of construction waste landfilled was 1.31 million tonnes (3,591 tpd) in 2013, which increased by 4.1% compared with the figure in 2012. Since the implementation of the Construction Waste Disposal Charging Scheme in 2006, the construction waste landfilled has significantly dropped by about 45% in seven years. In recent years, the construction waste landfilled has been fluctuating within a narrower range (See **Annex 6**).

Recovery of Total Solid Waste

7. The quantity of MSW recovered in 2013 was 2.01 million tonnes, which decreased by 7.1% compared with the figure in 2012. About 93% of the recovered materials were exported to the Mainland and other countries for recycling. The export value of recyclable materials was \$5.0 billion in 2013 compared with \$6.0 billion in 2012. Please refer to **Annex 5** for the quantities of individual types of recovered materials.

8. The locally recycled amount of food waste in 2013 was 28.6 thousand tonnes, which increased by 327% compared with the figure in 2012 (6.7 thousand tonnes). The industry pointed out that this increase was attributed to increasing market demand for the recycled products and materials, as well as the increasing public awareness of environmental protection. In addition, the Government had launched the Food Waste

Recycling Partnership Scheme since 2010 to encourage the commercial and industrial sectors to carry out food waste recycling at the Kowloon Bay pilot composting plant.

9. The Mainland law enforcement agencies (LEAs) had launched a program named "Operation Green Fence" (OGF) in 2013, which tightened up the testing standards for waste imported into the Mainland. Some plastics and paper waste exported to the mainland for recycling were returned to Hong Kong and were recycled locally. As a result, the locally recycled amount of plastics waste (51.7 thousand tonnes) and paper waste (1.1 thousand tonnes) were higher in 2013, compared with the figures in 2012 (8.6 thousand tonnes for plastics waste and 30 tonnes for paper waste). In addition, recyclers in plastics waste pointed out that this increase was also attributed to increasing market demand for the recycled products and materials, and the expansion in production capacity. Through the Innovation and Technology Fund and the Environment and Conservation Fund, the Government encouraged the development of recycling technologies and investments in waste recycling facilities, resulting in more local plastics waste recyclers in 2013.

10. In the past few years, most inert construction materials in construction waste were delivered to the public fill reception facilities and other outlets for reuse. The reuse rate was 95% in 2013, and has remained at above 90% in recent years.

Waste Recovery Rate

11. The overall MSW recovery rate of 37% in 2013 was lower than that of 39% in 2012. The decrease was mainly due to a decrease in the quantities of recovered paper waste (-130 thousand tonnes) and recovered plastic waste (-70 thousand tonnes).

12. As compared with the latest statistics of other places, MSW recovery rate of Hong Kong is lower than that of Taipei (68%), Germany (65%), and Seoul (65%). Our rate is on par with that of France (38%), United Kingdom (44%), and Denmark (44%), but higher than that of the United States (35%) and Japan (21%).

Environmental Protection Department
April 2015

Annex 1: Disposal of Solid Waste at Landfills

Year	2012	2013	Increase/ decrease % ⁽¹⁾
	(Unit: million tonnes)		
Municipal Solid Waste	3.40	3.48	+2.6%
(Domestic Waste)	2.30	2.32	+0.9%
(Commercial and Industrial Waste)	1.10	1.16	+6.3%
Construction Waste	1.26	1.31	+4.1%
Dewatered Sludge	0.34	0.35	+0.7%
Others	0.07	0.08	+19.4%
Total	5.07	5.22	+3.1%

- (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	2007	2008	2009	2010	2011	2012	2013
Economic Growth ^(a)	+6.5%	+2.1%	-2.5%	+6.8%	+4.8%	+1.5%	+2.9%
Population Increase ^(b)	+0.9%	+0.6%	+0.2%	+0.7%	+0.7%	+1.2%	+0.5%

^(a) Based on the GDP growth in real terms updated by C&SD in February 2014.

^(b) Based on the mid-year population growth rates updated by C&SD in August 2014.

Year	2007	2008	2009	2010	2011	2012	2013
	(Unit: million tonnes) Increase / decrease % ⁽³⁾						
Quantity of Municipal Solid Waste - Generation ⁽¹⁾	6.16 (-1.0%)	6.44 (+4.6%)	6.45 (+0.1%)	6.93 (+7.4%)	6.30 (-9.1%)	5.56 (-11.8%)	5.49 (-1.2%)
Quantity of Domestic Waste - Generation ⁽¹⁾	3.08 (+1.1%)	3.23 (+5.1%)	3.36 (+4.0%)	3.75 (+11.4%)	3.50 (-6.5%)	3.21 (-8.4%)	3.06 (-4.7%)
Quantity of Commercial & Industrial Waste - Generation ⁽¹⁾	2.82 (+6.1%)	3.21 (+14.1%)	3.09 (-3.8%)	3.18 (+3.0%)	2.80 (-12.0%)	2.35 (-16.2%)	2.43 (+3.6%)
Total Municipal Solid Waste Recovered for Recycling	2.81 (-1.0%)	3.14 (+11.8%)	3.18 (+1.2%)	3.60 (+13.3%)	3.02 (-16.2%)	2.16 (-28.4%)	2.01 (-7.1%)
Recovery rate of Municipal Solid Waste	46%	49%	49%	52%	48%	39%	37%
Recovery rate of Domestic Waste	24%	31%	35%	40%	38%	28%	24%
Recovery rate of Commercial & Industrial Waste	64%	67%	65%	66%	61%	53%	52%
Quantity of Municipal Solid Waste Disposal ⁽²⁾	3.35 (-1.0%)	3.30 (-1.5%)	3.27 (-0.9%)	3.33 (+1.7%)	3.28 (-1.3%)	3.40 (+3.4%)	3.48 (+2.6%)
Quantity of Domestic Waste Disposal	2.33 (-3.9%)	2.23 (-4.3%)	2.20 (-1.4%)	2.24 (+2.0%)	2.18 (-2.7%)	2.30 (+5.5%)	2.32 (+0.9%)
Quantity of Commercial and Industrial Waste Disposal	1.03 (+6.3%)	1.08 (+4.9%)	1.08 (+0.0%)	1.09 (+1.1%)	1.10 (+1.5%)	1.10 (-0.8%)	1.16 (+6.3%)

⁽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	2007	2008	2009	2010	2011	2012	2013
	(Unit: kg/person/day)						
Per Capita Generation of Municipal Solid Waste ⁽¹⁾	2.44	2.53	2.54	2.70	2.44	2.12	2.09
Per Capita Recovery of Municipal Solid Waste	1.11	1.23	1.25	1.41	1.17	0.83	0.77
Recovery Rate of Municipal Solid Waste	46%	49%	49%	52%	48%	39%	37%
Per Capita Disposal of Municipal Solid Waste	1.33	1.30	1.29	1.30	1.27	1.30	1.33
Per Capita Disposal of Domestic Waste	0.92	0.87	0.86	0.87	0.84	0.88	0.88
Per Capita Disposal of Commercial and Industrial Waste	0.41	0.42	0.42	0.42	0.43	0.42	0.44

- (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.

Annex 4: Quantity of Municipal Solid Waste Disposal (by type)

Year	2007	2008	2009	2010	2011	2012	2013
	(Unit: thousand tonnes)						
Paper	863	803	753	732	705	697	666
Plastics	604	623	622	708	618	668	681
Ferrous metals	51	58	48	49	52	70	53
Non-ferrous metals	18	22	14	15	14	18	12
Glass	132	140	117	136	101	106	129
Textiles	84	108	92	85	79	107	99
Wood	126	143	110	98	105	128	134
Food waste	1,192	1,096	1,197	1,181	1,308	1,221	1,331
Others ⁽¹⁾	281	308	318	321	300	381	380
Total ⁽²⁾	3,352	3,302	3,271	3,327	3,283	3,396	3,485

⁽¹⁾ Other waste includes bulky items and other miscellaneous materials.

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

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

Year	2007	2008	2009	2010	2011	2012	2013
	(Unit: thousand tonnes)						
Paper	1,102	1,091	1,027	1,195	1,278	1,162	1,035
Plastics	820	1,023	1,211	1,577	843	316	243
Ferrous metals ⁽¹⁾	594	793	733	566	667	500	523
Non-ferrous metals	187	140	101	155	115	78	79
Glass	1	1	3	5	5	18	10
Rubber Tyres ⁽²⁾	13	7	9	10	15	12	22
Textiles	15	10	16	20	11	4	7
Wood	21	18	17	17	18	9	6
Food waste	N/A	N/A	N/A	N/A	0.6 ⁽³⁾	7	29
Electrical and electronic equipment	59	59	64	61	67	56	56
Total ⁽⁴⁾	2,811	3,143	3,181	3,603	3,019	2,163	2,009

N/A – Not available

- (1) Those originated from construction and renovation activities were excluded.
- (2) Quantity includes reuse, retreading and recycling of waste tyres and local retreading of aircraft tyres.
- (3) The quantity refers to food waste recycled at EPD's pilot composting facility at Kowloon Bay. Figures as from 2012 were collected from the Waste Recovery Survey.
- (4) Figures may not add up to total due to rounding off.

Annex 6: Construction Waste Disposal at Landfills

