

ENVIRONMENTAL INDICATORS and SELECTED TIME SERIES

Composition of Municipal Waste: latest year

last update: June 2007

	<i>latest year available</i>	Paper, paperboard	Organic material	Plastics	Glass	Metals	Textiles	Other inorganic material
		%	%	%	%	%	%	%
Albania	2005	10.0	38.2	7.6	4.7	5.3	8.4	25.8
Algeria	2000	10.1	76.5	2.7	1.0	2.9	2.1	4.7
Andorra	2005	25.8	19.1	14.4	11.1	2.7	2.2	24.7
Argentina	2001	24.0 ¹	40.0 ¹	14.0 ¹	5.0 ¹	2.0 ¹	3.0 ¹	12.0 ¹
Armenia	2004	24.0	33.1	42.9
Australia	2003	23.0	47.0	4.0	7.0	5.0	...	13.0 ²
Austria	2004	22.0 ³	35.0 ³	11.0 ³	8.0 ³	5.0 ³	... ³	19.0 ³
Bangladesh	2004	5.3 ⁴	70.9 ⁴	6.6 ⁴	0.5 ⁴	0.4 ⁴	7.8 ⁴	8.5 ⁴
Belarus	2004	28.0	29.0	10.0	13.0	7.0	7.0	6.0
Belgium	2003	17.0	39.0	5.0	7.0	3.0	...	29.0
Belize	1997	20.0	60.0	5.0	5.0	5.0	...	5.0
Benin	2002	3.1	52.1	7.3	1.6	1.6	1.1	...
Bolivia	1999	6.0 ⁵	24.1 ⁵	7.9 ⁵	1.8 ⁵	1.1 ⁵	1.2 ⁵	57.3 ⁵
Brazil	2004	12.6 ⁶	59.9 ⁶	15.5 ⁶	3.4 ⁶	1.7 ⁶	1.5 ⁶	5.4 ⁶
Brunei Darussalam	2002	26.0	37.0	13.0	6.0	...	2.0	16.0
Burkina Faso	1993	5.0 ⁷	...	4.0	...	34.0
Canada	2004	47.0 ⁸	24.0 ⁸	3.0 ⁸	6.0 ⁸	13.0 ⁸	...	8.0 ^{2,8}
Chile	1998	18.8 ⁹	49.5 ⁹	10.2 ⁹	1.6 ⁹	2.2 ⁹	4.3 ⁹	...
China, Hong Kong SAR	2005	25.8	38.1	18.6	3.7	2.5	2.9	8.4
China, Macao SAR	2002	10.6	58.9	16.6	5.0	2.8	6.1	...
Colombia	2005	11.3	54.4	10.1	4.5	2.2	1.9	15.6
Costa Rica	2005	20.6	52.1	17.7	2.3	2.1	4.1	1.1
Croatia	2002	4.8	80.0	2.5	0.8	0.9	0.8	10.2
Cuba	2005	12.3	68.9	9.6	4.6	1.6	3.0	...
Cyprus	2001	27.2	37.8	11.3	1.2	9.1	6.1	7.3
Czech Republic	1996	8.0	18.0	4.0	4.0	2.0	2.0	61.0
Denmark	2003	27.0 ¹⁰	29.0 ¹⁰	0.8 ¹⁰	5.0 ¹⁰	6.0 ¹⁰	...	32.0 ^{2,10}
Dominican Republic	2000	13.8 ¹¹	39.0 ¹¹	35.8 ¹¹	1.1 ¹¹	0.6 ¹¹	4.3 ¹¹	5.4 ¹¹
Egypt	2000	15.5	55.0	7.5	3.0	4.5	3.5	11.0
Finland	2000	40.0	33.0	10.0	5.0	5.0	...	7.0
France	2002	20.0	32.0	9.0	10.0	3.0	...	26.0 ²
Georgia	2005	34.0	39.0	3.0	3.0	5.0	5.0	...
Germany	2002	34.0 ¹²	14.0 ¹²	22.0 ¹²	12.0 ¹²	5.0 ¹²	...	12.0 ^{2,12}
Greece	1997	20.0	47.0	9.0	5.0	5.0	...	16.0 ²
Guatemala	1995	29.0	...	23.5	1.5	0.0	8.0	20.2
Hungary	2005	15.0 ¹³	29.0 ¹³	17.0 ¹³	2.0 ¹³	2.0 ¹³	...	35.0 ^{2,13}
Iceland	2003	26.0 ³	26.0 ³	17.0 ³	4.0 ³	3.0 ³	...	24.0 ^{2,3}
India	2004	2.8	35.0	1.6	0.9	0.3	1.0	58.0
Indonesia	2005	20.6 ¹⁴	55.4 ¹⁴	13.3 ¹⁴	1.9 ¹⁴	1.1 ¹⁴	0.6 ¹⁴	4.7 ¹⁴
Ireland	2005	31.0 ¹⁵	25.0 ¹⁵	11.0 ¹⁵	5.0 ¹⁵	4.0 ¹⁵	...	23.0 ^{2,15}
Israel	1999	32.0	19.0	36.0	2.0	4.0	0.0	7.0

Italy	2005	28.0 ¹⁶	29.0 ¹⁶	5.0 ¹⁶	13.0 ¹⁶	2.0 ¹⁶	...	22.0 ^{2,16}
Jamaica	2004	17.0 ¹⁷	56.0 ¹⁷	12.0 ¹⁷	4.0 ¹⁷	5.0 ¹⁷	3.0 ¹⁷	3.0 ¹⁷
Japan	2000	33.0	34.0	13.0	5.0	3.0	...	12.0
Korea, Republic of	2004	24.0	28.0	8.0	5.0	7.0	...	28.0 ²
Lebanon	1998	17.0	51.0	10.0	9.0	3.0	3.0	7.0
Luxembourg	2003	22.0 ¹⁸	45.0 ¹⁸	0.8 ¹⁸	12.0 ¹⁸	4.0 ¹⁸	...	16.0 ^{2,18}
Madagascar	2003	3.5 ¹⁹	52.2 ¹⁹	1.4 ¹⁹	0.8 ¹⁹	1.3 ¹⁹	3.5 ¹⁹	37.4 ¹⁹
Mali	1995	3.5	17.5	2.0	1.0	3.5	1.0	...
Mauritius	2004	10.0	70.0	9.0	3.0	2.0	4.0	2.0
Mexico	2006	15.0	51.0	6.0	6.0	3.0	...	18.0 ²
Monaco	2002	0.3	...	1.4 ²⁰	0.6	2.8
Morocco	1999	7.5 ²¹	60.0 ²¹	7.0 ²¹	2.0	2.5 ²¹	2.0	...
Nepal	2004	10.4	66.0	16.3	1.4	0.8	3.6	1.5
Netherlands	2004	26.0 ²²	35.0 ²²	19.0 ²²	4.0 ²²	4.0 ²²	...	12.0 ^{2,22}
New Zealand	1995	21.0 ²³	56.0 ²³	8.0 ²³	3.0 ²³	7.0 ²³	...	5.0 ^{2,23}
Niger	2005	2.0	38.0	2.0	0.0	1.0	...	57.0
Nigeria	2000	8.0 ²⁴	...	4.8 ²⁴	3.1 ²⁴	...	11.3 ²⁴	...
Norway	2001	33.0 ³	30.0 ³	9.0 ³	4.0 ³	4.0 ³	...	20.0 ^{2,3}
Palestine	2005	1.8	81.3	0.4	0.0	0.0	0.0	16.5
Panama	2000	25.0 ²⁵	44.0 ²⁵	11.0 ²⁵	8.0 ²⁵	5.0 ²⁵	4.0 ²⁵	3.0 ²⁵
Peru	2001	7.5	54.5	4.3	3.4	2.4	1.6	26.4
Poland	1990	10.0	38.0	10.0	12.0	8.0	...	23.0 ²
Portugal	2001	21.0	34.0	11.0	7.0	4.0	...	23.0 ²
Serbia	1999	37.0	5.0	12.0	10.0	5.0	...	31.0
Singapore	2005	24.3	21.4	14.9	1.4	20.0	2.0	16.0
Slovakia	2002	13.0	38.0	7.0	8.0	3.0	...	31.0
Spain	2002	21.0 ²⁶	49.0 ²⁶	12.0 ²⁶	8.0 ²⁶	4.0 ²⁶	...	7.0 ²⁶
Sri Lanka	2004	6.5	68.9 ²⁷	5.9	2.0	2.8	6.0 ²⁸	7.9
St. Vincent and the Grenadines	2002	32.3	33.6	12.4	8.2	5.6	5.8	2.1
Sweden	2005	68.0 ²⁹	...	2.0 ²⁹	11.0 ²⁹	2.0 ²⁹	...	17.0 ^{2,29}
Switzerland	2002	20.0 ³⁰	29.0 ³⁰	15.0 ³⁰	4.0 ³⁰	3.0 ³⁰	...	29.0 ^{2,30}
Syrian Arab Republic	2004	10.0	60.0	12.0	2.5	4.0	2.5	7.0
The Former Yugoslav Rep. of Macedonia	1995	24.0	...	11.0	5.0	3.0	4.0	8.0
Trinidad and Tobago	2003	32.2 ³¹	14.4 ³¹	23.6 ³¹	2.5 ³¹	15.7 ³¹	1.6 ³¹	9.9 ³¹
Tunisia	2003	10.0	68.0	11.0	3.0	4.0	2.0	2.0
Turkey	1993	6.0 ³²	64.0 ³²	3.0 ³²	2.0 ³²	1.0 ³²	...	24.0 ^{2,32}
Turks and Caicos Islands	2004	31.5	21.8 ³³	16.3	20.5	7.6	0.5	1.9
United Kingdom	2000	18.0	40.0	8.0	7.0	8.0	...	19.0 ²
United States	2005	34.0	25.0	12.0	5.0	8.0	...	16.0 ²
Uruguay	2003	20.0 ³⁴	53.5 ³⁴	11.0 ³⁴	3.0 ³⁴	5.0 ³⁴	2.0 ³⁴	5.5 ³⁴
Zimbabwe	2005	40.0 ³⁵	28.0 ³⁵	20.0 ³⁵	3.0 ³⁵	2.0 ³⁵	5.0 ³⁵	2.0 ³⁵

Sources:

UNSD/UNEP 2001, 2004 and 2006 questionnaires on Environment statistics, Waste section

OECD/Eurostat 2004 questionnaire on Environment statistics, Waste section

OECD Environmental Data, Compendium 2006/2007, waste section

Footnotes:

1 Information corresponding to the City of Buenos Aires, <http://www.buenosaires.gov.ar/buscador/>.

- 2 Data include textiles and other waste.
- 3 Household waste only.
- 4 Data refer to Dhaka city only. Data are from Dhaka City Corporation.
- 5 The information refers to the physical composition of the solid waste in the main cities of Bolivia (La Paz, Cochabamba, Santa Cruz and El Alto)
- 6 The data refer only to the percent composition of collected waste of Rio de Janeiro city, that represented, in 2000, about 5.3 % of total waste collected in Brasil. The population of Rio de Janeiro city represented 3.43% of the Brazilian population in 2000.
- 7 It refers to domestic waste for the city of Ouagadougou only.
- 8 Data refer to non-hazardous solid waste generated from residential, industrial, commercial and institutional sources prepared for recycling at an off-site facility (excluding construction and demolition waste).
- 9 Data correspond to a representative sample for the Metropolitan Region of Santiago.
- 10 Separate collection only (52% of municipal waste in 2003).
- 11 This information only corresponds to the city of Santo Domingo.
- 12 Separate collection only.
- 13 Data based on volumetric information for Budapest; includes also hazardous waste.
- 14 Data for Jakarta City only.
- 15 Data refer to the total municipal waste, landfilled and recovered.
- 16 Separate collection and bulky waste only (26% of municipal waste in 2005).
- 17 Data refer only to household waste for the largest landfill in Kingston.
- 18 Separate collection only (42% of municipal waste in 2003).
- 19 The sampling method used is the "MODECOM" (ADEME):data for the urban community of Antananarivo (the capital).
- 20 Plastics refers to industrial PVC.
- 21 Calculated by UNSD.
- 22 Household waste only; data based on the content of waste bags (excluding separate collection).
- 23 Data refer to household waste landfilled only.
- 24 The above data is for Abuja City alone, as submitted by the Abuja Environmental Protection Board.
- 25 The data only correspond to the amount of waste produced by the City of Panama. Source: The Municipal Direction of Urban Cleanliness and House (DIMAUD), is the one in charge of the collecting, transports and final dispose of the solid waste in the Municipality of Panama.
- 26 Household and similar waste.
- 27 Include 56.57% bio-degradable waste (Short term), 5.94% bio-degradable waste (Long term) and 6.35% wooden waste.
- 28 Include saw dust/paddy husk & cloth/garment wastes.
- 29 Separate collection (39% of municipal waste in 2005) excluding organic waste.
- 30 Excludes separately collected waste.
- 31 Data were obtained from a waste characterization study done only at the Beetham Facility under the Eurocolumbus project.
- 32 Refer to household waste composition in 58 urban municipalities with a population > 20000.
- 33 Includes Organics, Wood (Leather/Rubber) and Bones.
- 34 Estimation of composition of domestic waste of Montevideo and Metropolitan Area.
- 35 Data refer to the City of Harare.

Definitions & Technical notes:

Municipal waste is composed of a mix of different materials. Usually, the composition of municipal waste is determined from the physical analysis of waste samples using surveying methods.