United Nations Statistics Division (UNSD) and United Nations Environment Programme

QUESTIONNAIRE 2020 ON ENVIRONMENT STATISTICS

Section: WASTE

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INTRODUCTION

The biennial data collection which is a joint activity of the United Nations Statistics Division (UNSD) and the United Nations Environment Programme contributes to the development of the UNSD International Environment Statistics Database. The data will be analyzed and consolidated by UNSD for use in international work and will be made available to users at UNSD's website.

The data requested in this questionnaire may be initially collected or compiled by different institutions in a country. The national statistical offices or ministries of environment are asked to bring together the data from these different sources. In the case of hazardous waste please consult the focal point of your country to the Basel Convention, as noted in the description of Table R2 below.

Where a country has provided data to previous UNSD/United Nations Environment Programme Questionnaires on Environment Statistics, the 2020 Questionnaire has been pre-filled with these data. Countries are requested to add data for later years and to check the time series for consistency.

The definitions are listed in order of appearance of the variables. Where variables are repeated, the definition can be found where the variable first appeared.

Copies of the questionnaire are available online at https://unstats.un.org/unsd/envstats/questionnaire. Data from previous data collections are available at https://unstats.un.org/unsd/envstats/qindicators.

Waste management is a key concern for the environment and the sustainable management of natural resources. The primary targets of waste management are:

- Reducing toxicity and volume of waste generated in the different production and consumption processes;
- Increasing the share of recovered waste materials;
- Sound environmental management of waste for disposal.

The purpose of the waste questionnaire is to provide consistent data to draw reliable information and trends on:

- the share of economic activities and households in the generation of waste;
- the generation and treatment of hazardous waste;
- the generation, collection, treatment and composition of municipal waste;
- the generation and collection of electronic waste (e-waste).

A data validation section is added next to each table. It includes two validation table types: time series validation and coherence validation. It will help both the country and UNSD to validate the data provided.

Changes from the UNSD/UNEP Questionnaire 2018 on Environment Statistics:
Additional variables have been added to table R6: Electronic Waste Generation and Collection. All additional variables are breakdowns of (i) Total E-waste generated and (ii) Total E-waste collected.

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STEPS TO FOLLOW

- ☑ Fill in the contact institution information at the top of each table.
- ☑ Tables are pre-filled with data received from previous UNSD/United Nations Environment Programme Questionnaires. Check the pre-filled data and, if possible, kindly update in the table. Check the pre-filled footnotes and correct them if necessary.
- ☑ If necessary, include footnotes to give additional information on data. Assign codes in alphabetical order (e.g., A, B, C...) in the first column to the right of the data and in the 'Footnotes' section below each table. Write your explanatory text in the footnote text column next to the associated code. If there are big data fluctuations in the time series, add footnotes to explain the large changes. Provide as much information as possible in the footnotes on the source and data collection method for each value.
- ☑ Based on the definitions provided, fill in the tables as much as possible (see the Definitions Sheet). If a different definition or methodology has been used, explain the differences in a footnote or provide the definition and/or methodology applied in the Supplementary Information Sheet (R7).
- ☑ **If the requested data are not available, leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country, or the value is less than half the unit of measurement, the cell should be filled with "0".**
- ☑ Report data in the requested unit.
- ☑ Attach any documents or reference which could help UNSD to understand your data.
- ☑ After you have filled in the data for each table, check the flagged cases (in red) for data coherence in the data validation section next to each table.

Contact us: If you have any questions, contact the United Nations Statistics Division

- by mail: UN Statistics Division, Environment Statistics Section, DC2 -1516, 2 United Nations Plaza, New York, New York, 10017, USA
- by e-mail: envstats@un.org
- by fax: +1 (212) 963-0623
- by phone: Reena Shah at +1 (212) 963-4586, or Marcus Newbury at +1 (212) 963-0092, or Xuan Che at +1 (917) 367-9065, or Robin Carrington at +1 (212) 963-6234.

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DESCRIPTION OF TABLES

In many countries there are no comprehensive data or estimates of the total amounts of waste generated by the different human/economic activities. Instead they focus on certain types of waste or waste materials that are of high priority for waste management.

In some countries, waste statistics are only available at the sub-national (regional, provincial, state) or city level. If there are no data at the national level, report the sub-national or city level data and provide a footnote indicating the coverage of the data.

Table R1: Generation of Waste by Source

This table asks for data on the total amount of waste (both non-hazardous and hazardous), generated in the country during the year (Line 8), and its distribution among wide categories of the various economic activities and by households (Lines 1-7).

The breakdown follows the International Standard Industrial Classification of All Economic Activities (ISIC Rev.4).
(URL: https://unstats.un.org/unsd/publications/catalogue?selectID=396).

The amount reported under 'Total waste generation' (Line 8) should be equal to the sum of the amounts reported under the various economic activities and households. There are the following exceptions to this rule:
1) If data (or estimates) are available on the total amount of waste generated but not, or only partially, according to the breakdown requested in the table, please provide data for "Total waste generation" (Line 8) and any categories of the table that are applicable.
2) If data (or estimates) are not available on the total amount of waste generated, but only for selected categories of waste (Lines 1-5), please provide relevant data for those categories but leave Line 8 blank.
For ‘Other economic activities excluding ISIC 38’ (Line 6) please provide detailed explanations in the Footnotes Section below the table.
Please note that waste generated by ISIC 38 (waste collection, treatment and disposal activities; and materials recovery) is considered secondary waste, i.e., residual materials from recovery and disposal operations such as incineration and composting residues. To avoid double counting, waste generated by ISIC 38 should be excluded from this table.

Table R2: Management of Hazardous Waste

Hazardous waste here refers to categories of waste to be controlled according to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Article 1.1 and Annex I) (URL: http://www.basel.int/). If data are not available according to the Basel Convention, amounts can be given according to national definitions and footnoted accordingly. If that is the case, give information on national definitions/classifications in the Supplementary Information Sheet. Please consult the Focal Point of your country to the Basel Convention in order to promote harmonization of the reported data to the Basel Convention and to the UNSD/United Nations Environment Programme Questionnaire. The list of Focal Points is available at: http://www.basel.int/Countries/CountryContacts/tabid/1342/Default.aspx

The stock of hazardous waste is the amount of hazardous waste waiting for treatment or disposal. Hazardous waste is commonly stored prior to treatment or disposal. Part of the hazardous waste may not be treated or disposed of during the year that it is generated. At the end of the year, this amount of hazardous waste not treated or disposed of will contribute to the stock of hazardous waste to be treated or disposed of for upcoming years. Also, part of the amount of hazardous waste generated may be exported to other countries for treatment. Countries may also have imported hazardous waste either for treatment or disposal. 'Stock of hazardous waste at the beginning of the year' + 'Hazardous waste generated during the year' + 'Hazardous waste imported during the year' - 'Hazardous waste exported during the year' - 'Hazardous waste treated or disposed of during the year' = 'Stock of hazardous waste at the end of the year'.

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In principle, the sum of the amounts of hazardous waste going to: 'Recycling' + 'Incineration' + 'Landfilling' + 'Other' should be equal to the amount of 'Hazardous waste treated or disposed of during the year'. Nevertheless, as there can be double counting due to secondary waste quantities (e.g., residues of incineration which are landfilled), the sum can be higher than the amounts to be managed.

Table R3: Management of Municipal Waste

This table focuses on management of municipal waste. The total amount of 'Municipal waste collected' is the amount that is effectively collected/removed from households and other origins by or on behalf of municipalities (by public or private companies).

In some instances, part of the municipal waste collected may be exported to other countries for treatment. Countries may also have imported municipal waste for treatment or disposal. The total amount of 'Municipal waste managed in the country' is calculated as: municipal waste collected in the country - municipal waste exported + municipal waste imported.

In principle, the sum of the amounts going to 'Recycling' + Composting' + 'Incineration' + 'Landfilling' + 'Other' should be equal to the amount of 'Municipal waste managed in the country'. Nevertheless, as there can be double counting due to secondary waste quantities (e.g., residues of incineration which are landfilled or residues from composting which are incinerated), the sum can be higher than the amounts to be managed.

The 'Percentage of total population served by municipal waste collection' is usually estimated using the percentage of addresses in the municipalities from where waste is collected. It is expressed as a percentage of the total resident population. Similarly, the urban resident population served is expressed as a percentage of the total urban resident population, and the rural resident population served is expressed as a percentage of the total rural resident population. Apply national definition for "urban" and "rural" population.

The formulas for "Percentage of population (total, urban, rural) served by municipal waste collection" can be expressed as:
$P_{total} = T_s / T = (U_s + R_s) / (U + R)$,
$P_{urban} = U_s / U$,
$P_{rural} = R_s / R$,
where T_s = Total population served, T = Total population, U_s = urban population served, U = urban population, R_s = rural population served, R = rural population.
The relationship between these three values is normally: $P_{rural} < P_{total} < P_{urban}$.

Table R4: Composition of Municipal Waste

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. The table asks for the percentages of the mass of the main material groups in mixed municipal waste. If only the composition of household waste is available, provide the information in a footnote.

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Table R5: Management of Municipal Waste — City Data

This table aims to provide a comprehensive picture of the collection, treatment and disposal of municipal waste at the local level. Countries are kindly asked to provide data for the most populous cities of the country. Duplicate this table if you can provide data for additional cities.

Table R6: Electronic waste generation and collection

This table collects comprehensive data on electronic waste generated and collected. Electronic waste, or e-waste, refers to all items of electrical and electronic equipment (EEE) and its parts that have been discarded by its owner as waste without the intent of re-use. In this table, e-waste is categorized into groups: large equipment; screens, monitors, and equipment containing screens; temperature exchange equipment; small e-waste (which includes lamps, small equipment, and small IT and telecommunication equipment). This is the first attempt to collect e-waste data in their refined categories.

Table R7: Supplementary Information Sheet

Provide national definitions for waste, hazardous waste and municipal waste if they are different from the definitions provided by UNSD, and any additional information that can help the interpretation of your data, such as survey methods applied, quality statements on the data, etc.

In addition, countries are encouraged to provide or attach any complementary source of information such as website addresses, publications, results of surveys, etc., related to the waste topic, particularly if countries encountered difficulties filling in the questionnaire.

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List of Definitions

Industry Classification

This questionnaire asks for data on the total amount of waste (both non-hazardous and hazardous), generated by various economic activities and households. The sectoral breakdown follows the International Standard Industrial Classification of All Economic Activities (ISIC Rev.4). For the full classification, see https://unstats.un.org/unsd/publications/catalogue?selectID=396.

ISIC Code(s)	ISIC Category	ISIC Rev. 4
A 01-03	**Agriculture, forestry and fishing**	**Agriculture, forestry and fishing** cover: crop and animal production, hunting and related service activities; forestry and logging; and fishing and aquaculture. This section includes the exploitation of vegetal and animal natural resources, comprising the activities of growing of crops, raising and breeding of animals, harvesting of timber and other plants, animals or animal products from a farm or their natural habitats.
B 05-09	**Mining and quarrying**	**Mining and quarrying** include the extraction of minerals occurring naturally as solids (coal and ores), liquids (petroleum) or gases (natural gas). Extraction can be achieved by different methods such as underground or surface mining, well operation, seabed mining etc. This section also includes supplementary activities aimed at preparing the crude materials for marketing, which are often carried out by the units that extracted the resource and/or others located nearby.
C 10-33	**Manufacturing**	**Manufacturing** includes the physical or chemical transformation of materials, substances, or components into new products. The materials, substances, or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying as well as products of other manufacturing activities. Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing.
D 35	**Electricity, gas, steam and air conditioning supply**	This section includes the activity of providing electric power, natural gas, steam, hot water and the like through a permanent infrastructure (network) of lines, mains and pipes. The dimension of the network is not decisive; also included are the distribution of electricity, gas, steam, hot water and the like in industrial parks or residential buildings. This section therefore includes the operation of electric and gas utilities, which generate, control and distribute electric power or gas. Also included is the provision of steam and air-conditioning supply. This section excludes the operation of water and sewerage utilities. This section also excludes the (typically long-distance) transport of gas through pipelines.
E 38	**Waste collection, treatment and disposal activities; materials recovery**	This division includes the collection, treatment, and disposal of waste materials. This also includes local hauling of waste materials and the operation of materials recovery facilities (i.e., those that sort recoverable materials from a waste stream).
F 41-43	**Construction**	**Construction** includes general construction and specialized construction activities for buildings and civil engineering works. It includes new work, repair, additions and alterations, the erection of prefabricated buildings or structures on the site and also construction of a temporary nature.

Definitions

Table	Term	Definitions
	Waste	Materials that are not prime products (i.e., products produced for the market) for which the generator has no further use for his own purpose of production, transformation or consumption, and which he discards, or intends or is required to discard. It excludes material directly recycled or reused at the place of generation (i.e., establishment) and waste materials that are directly discharged into ambient water or air as wastewater or air pollution.
R1, 1	(Waste from) **Agriculture, forestry and fishing (ISIC 01-03)**	All waste from agricultural, forestry and fishing activities. Manure used as fertilizer is excluded (i.e., only excess manure which is disposed of should be included). This category refers to ISIC divisions 01 to 03.
R1, 2	(Waste from) **Mining and quarrying (ISIC 05-09)**	All waste from mining and quarrying activities. This category refers to ISIC divisions 05 to 09.
R1, 3	(Waste from) **Manufacturing (ISIC 10-33)**	All waste from manufacturing activities. This category refers to ISIC divisions 10 to 33.
R1, 4	(Waste from) **Electricity, gas, steam and air conditioning supply (ISIC 35)**	All waste from electricity, gas, steam and air conditioning supply. Waste from the production of nuclear energy should be excluded. This category refers to ISIC division 35.
R1, 5	(Waste from) **Construction (ISIC 41-43)**	All waste from construction activities. This category refers to waste generated in ISIC divisions 41 to 43.
R1, 6	(Waste from) **Other economic activities excluding ISIC 38**	All waste from all other economic activities not specified above and excluding ISIC division 38. This category refers to waste generated in ISIC divisions 36, 37, 39, and ISIC 45 to 99.
R1, 7	(Waste from) **Households**	Waste material usually generated in the normal functioning of households.
R2, R3 & R5	**Management of waste**	Collection, transport, treatment and disposal of waste, including after-care of disposal sites.
R2	**Hazardous waste**	Hazardous waste refers to the categories of waste to be controlled according to the Basel Convention on the control of transboundary movements of hazardous waste and their disposal (Article 1.1 and Annex I).
R2, 6; R3, 8 & R5, 7	**Recycling**	Any reprocessing of waste material in a production process that diverts it from the waste stream, except reuse as fuel. Both reprocessing as the same type of product, and for different purposes should be included. Recycling within industrial plants i.e., at the place of generation should be excluded.
R2, 7; R3, 10 & R5, 9	**Incineration**	The controlled combustion of waste with or without energy recovery.
R2, 8; R3, 11 & R5, 10	**Incineration with energy recovery**	Incineration in which evolving thermal energy is used for the production of steam, hot water or electric energy.
R2, 9; R3, 12 & R5, 11	**Landfilling**	Final placement of waste into or onto the land in a controlled or uncontrolled way. The definition covers both landfilling in internal sites (i.e., where a generator of waste is carrying out its own waste disposal at the place of generation) and in external sites.
R2, 10	**Other** (waste treatment/disposal for hazardous waste)	Any final treatment or disposal different from recycling, incineration and landfilling. Examples include physical/chemical treatment, biological treatment, releasing into water bodies and permanent storage.

Definitions

Table	Term	Definitions
R3, R4 & R5	**Municipal waste**	Municipal waste, collected by or on behalf of municipalities, by public or private enterprises, includes waste originating from: households, commerce and trade, small businesses, office buildings and institutions (schools, hospitals, government buildings). It also includes bulky waste (e.g., white goods, old furniture, mattresses) and waste from selected municipal services, e.g., waste from park and garden maintenance, waste from street cleaning services (street sweepings, the content of litter containers, market cleansing waste), if managed as waste. The definition excludes waste from municipal sewage network and treatment, municipal construction and demolition waste.
R3, 1 & R5, 2	**Municipal waste generated**	This amount is the sum of the amount of municipal waste collected plus the estimated amount of municipal waste from areas not served by a municipal waste collection service.
R3, 4 & R5, 6	**Total amount of municipal waste collected**	Municipal waste collected by or on behalf of municipalities, as well as municipal waste collected by the private sector. It includes mixed waste, and fractions collected separately for recovery operations (through door-to-door collection and/or through voluntary deposits).
R3, 7	**Municipal waste managed in the country**	The amount of municipal waste collected in the country - amount exported for treatment or disposal + amount imported for treatment or disposal.
R3, 9 & R5, 8	**Composting**	A biological process that submits biodegradable waste to anaerobic or aerobic decomposition, and that results in a product that is recovered and can be used to increase soil fertility.
R3, 13 & R5, 12	**Controlled landfilling**	Final placement of waste into or onto the land in a controlled landfill site.
R3, 14 & R5, 13	**Other** (waste treatment/disposal)	Any final treatment or disposal different from recycling, composting, incineration and landfilling. Examples include releasing into water bodies and permanent storage.
R3, 15-17 & R5, 3	**Population (total, urban, rural) served by municipal waste collection**	The proportion of the total, urban and rural resident population covered by regular municipal waste removal service in relation to the total, urban and rural resident population, respectively, of the country or the city.
R6,1	**Electronic waste (e-waste)**	Electronic waste, or e-waste, refers to all items of electrical and electronic equipment (EEE) and its parts that have been discarded by its owner as waste without the intent of re-use.
R6,2 & R6,10	**Large Equipment**	Incudes central heating (household installed); photovoltaic panels (incl. inverters); professional heating and ventilation (excl. cooling equipment); dishwashers; kitchen (e.g. large furnaces, ovens, cooking equipment); washing machines (incl. combined dryers); dryers (wash dryers, centrifuges); household heating & ventilation (e.g. hoods, ventilators, space heaters); professional IT (e.g. servers, routers, data storage, copiers); professional tools (e.g. for welding, soldering, milling); leisure (e.g. large exercise, sports equipment); professional medical (e.g. hospital, dentist, diagnostics); professional monitoring and control (e.g. laboratory, control panels); and non cooled dispensers (e.g. for vending, hot drinks, tickets, money).
R6,3 & R6,11	**Screens, monitors, and equipment containing screens**	Includes laptops (incl. tablets); cathode ray tube monitors; flat display panel monitors (LCD, LED); cathode ray tube TVs; and flat display panel TVs (LCD, LED, Plasma).
R6,4 & R6,12	**Temperature exchange equipment (Cooling and Freezing Equipment)**	Includes freezers; air conditioners (household installed and portable); Other Cooling (f.i. dehumidifiers, heat pump dryers); Professional Cooling (f.i. large air conditioners, cooling displays); and Cooled Dispensers (f.i. for vending, cold drinks).
R6,5 & R6,13	**Small E-waste**	The aggregate of lamps, small equipment and small IT and telecommunications equipment. See definitions for each below.
R6,6 & R6,14	**Lamps**	Includes compact fluorescent lamps (incl. retrofit & non-retrofit); straight tube fluorescent lamps; special lamps (e.g. professional mercury, high & low pressure sodium); and LED lamps (incl. retrofit LED lamps).

Definitions

Table	Term	Definitions
R6,7 & R6,15	**Small Equipment**	Includes microwaves (incl. combined, excl. grills); other small household (e.g. small ventilators, irons, clocks, adapters); food (e.g. toaster, grills, food processing, frying pans); hot water (e.g. coffee, tea, water cookers); vacuum cleaners (excl. professional); personal care (e.g. tooth brushes, hair dryers, razors); small consumer electronics (e.g. headphones, remote controls); portable audio and video (e.g. MP3, e-readers, car navigation); music instruments, radio, HiFi (incl. audio sets); video (e.g. video recorders, DVD, blue ray, set-top boxes); speakers; cameras (e.g. camcorders, foto & digital still cameras); small lighting equipment (excl. LED and incandescent); household luminaires (incl. household incandescent fittings & household LED luminaires); professional luminaires (offices, public space, industry); household tools (e.g. drills, saws, high pressure cleaners, lawn mowers); toys (e.g. car racing sets, electric trains, music toys, biking computers); household medical (e.g. thermometers, blood pressure meters); and household monitoring and control (alarm, heat, smoke, excl. screens).
R6,8 & R6,16	**Small IT and telecommunication equipment**	Includes small IT (e.g. routers, mice, keyboards, external drives and accessories); desktop PCs (excl. monitors, accessories); printers (e.g. scanners, multifunctionals, faxes); telecom (e.g. (cordless) phones, answering machines); mobile phones (incl. smartphones, pagers); and game consoles.

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Table R1: Generation of Waste by Source

• If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Agriculture, forestry and fishing (ISIC 01-03)	1000 t																						
2	Mining and quarrying (ISIC 05-09)	1000 t																						
3	Manufacturing (ISIC 10-33)	1000 t																						
4	Electricity, gas, steam and air conditioning supply (ISIC 35)	1000 t																						
5	Construction (ISIC 41-43)	1000 t																						
6	Other economic activities excluding ISIC 38	1000 t																						
7	Households	1000 t																						
8	**Total waste generation (=1+2+3+4+5+6+7)**	1000 t																						

Notes:

- Waste generated by an economic activity includes <u>all</u> kinds of waste generated by economic units within this activity. For further details please refer to the description of Table R1 in the Guidance Section.
- **If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".**
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the types of the original data sources used (e.g., surveys or administrative records).

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Footnotes

Code	Footnote text

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Table R2: Management of Hazardous Waste

• If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Stock of hazardous waste at the beginning of the year	tonnes																						
2	Hazardous waste generated during the year	tonnes																						
3	Hazardous waste imported during the year	tonnes																						
4	Hazardous waste exported during the year	tonnes																						
5	**Hazardous waste treated or disposed of during the year (=6+7+9+10)**	tonnes																						
6	*Amounts going to:* Recycling	tonnes																						
7	Incineration	tonnes																						
8	*of which:* with energy recovery	tonnes																						
9	Landfilling	tonnes																						
10	Other, please specify in the footnote	tonnes																						
11	Stock of hazardous waste at the end of the year (=1+2+3-4-5)	tonnes																						

Notes:

- Please note that the unit in this table is "**tonnes (metric tons)**".
- **If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".**
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the types of the original data sources used (e.g., surveys or administrative records).

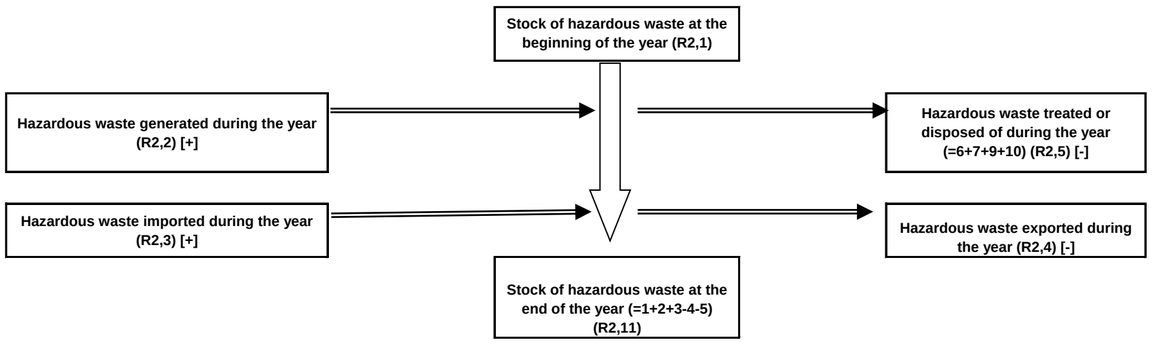

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Table R3: Management of Municipal Waste

• If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Total amount of municipal waste generated	1000 t																						
2	Municipal waste collected from households	1000 t																						
3	Municipal waste collected from other origins	1000 t																						
4	**Total amount of municipal waste collected (=2+3)**	1000 t																						
5	Municipal waste imported for treatment/disposal	1000 t																						
6	Municipal waste exported for treatment/disposal	1000 t																						
7	**Municipal waste managed in the country (=4+5-6)**	1000 t																						
8	*Amounts going to:* Recycling	1000 t																						
9	Composting	1000 t																						
10	Incineration	1000 t																						
11	*of which:* with energy recovery	1000 t																						
12	Landfilling	1000 t																						
13	*of which:* controlled landfilling	1000 t																						
14	Other, please specify in the footnote	1000 t																						
15	Total population served by municipal waste collection	%																						
16	Urban population served by municipal waste collection	%																						
17	Rural population served by municipal waste collection	%																						

Note:

- **If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".**
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the types of the original data sources used (e.g., surveys or administrative records).

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Table R4: Composition of Municipal Waste

• If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Paper, paperboard	%																						
2	Textiles	%																						
3	Plastics	%																						
4	Glass	%																						
5	Metals	%																						
6	Other inorganic material	%																						
7	Organic material	%																						
8	*of which* : food waste and garden waste	%																						
10	TOTAL	%	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note:

- **If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".**
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the types of the original data sources used (e.g., surveys or administrative records).

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Footnotes

Code	Footnote text

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Country: _____ **Contact institution:** _____

City name: _____

Table R5: Management of Municipal Waste — City Data

• If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Total population of the city	1000 inh.																						
2	Total amount of municipal waste generated	1000 t																						
3	Percentage of city population served by municipal waste collection	%																						
4	Municipal waste collected from households	1000 t																						
5	Municipal waste collected from other origins	1000 t																						
6	**Total amount of municipal waste collected (=4+5)**	1000 t																						
7	*Amounts going to:* Recycling	1000 t																						
8	Composting	1000 t																						
9	Incineration	1000 t																						
10	*of which:* with energy recovery	1000 t																						
11	Landfilling	1000 t																						
12	*of which:* controlled landfilling	1000 t																						
13	Other, please specify in the footnote	1000 t																						

Notes:

- Countries are kindly asked to provide data for the most populous cities of the country. Please duplicate this table if you can provide data for additional cities.
- **If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".**
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the types of the original data sources used (e.g., surveys or administrative records).

Section: WASTE

Footnotes

Code	Footnote text

Section: WASTE

Country: **Contact institution:**

Table R6: E-Waste Generation and Collection

• If the value turns red, please check if it is correct.

Line	Category	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	**Total E-waste Generated**	1000 t																						
2	*Amounts going to:* Large equipment	1000 t																						
3	Screens, monitors, and equipment containing screens	1000 t																						
4	Temperature exchange equipment (cooling and freezing equipment)	1000 t																						
5	Small E-waste (=6+7+8)	1000 t																						
6	*of which:* lamps	1000 t																						
7	*of which:* small equipment	1000 t																						
8	*of which:* small IT and telecommunication equipment	1000 t																						
9	**Total E-waste collected**	1000 t																						
10	*Amounts going to:* Large equipment	1000 t																						
11	Screens, monitors, and equipment containing screens	1000 t																						
12	Temperature exchange equipment (cooling and freezing equipment)	1000 t																						
13	Small E-waste (=14+15+16)	1000 t																						
14	*of which:* lamps	1000 t																						
15	*of which:* small equipment	1000 t																						
16	*of which* : small IT and telecommunication equipment	1000 t																						

Note:

- **If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the unit of measurement, the cell should be filled with "0".**
- Please provide in the Footnotes Section below information on the source and data collection methodology for the values provided, such as estimation methods (if any), and the types of the original data sources used (e.g., surveys or administrative records).

Footnotes

Code	Footnote text

Section: WASTE

Country: **Contact institution:**

Table R7: Supplementary Information Sheet

Please insert national definitions for waste, hazardous waste, municipal waste, electronic waste and other complementary information on waste.
Waste:
Hazardous waste:
Municipal waste:
Electronic waste:
Please insert any additional information that can help the interpretation of your data, such as survey methods applied, quality statements on the data, etc.
Please describe the difficulties encountered in filling in the questionnaire.