



# UNSD/UNEP Questionnaire on Environment Statistics – water and waste

Environment Statistics Section  
United Nations Statistics Division (UNSD)



Prepared for UN member states attending information  
sessions on the UNSD/UNEP Questionnaire on  
Environment Statistics

20, 21 and 22 September 2022



# Outline



1. History and current context of this Questionnaire
2. Water Section and ties to Sustainable Development Goal indicators
3. Waste Section and ties to Sustainable Development Goal indicators



United Nations Statistics Division (UNSD) and United Nations Environment Programme  
**QUESTIONNAIRE 2022 ON ENVIRONMENT STATISTICS**

Section: WATER

TABLE OF CONTENTS	
<b>Guidance</b>	Introduction, Steps to Follow, Description of Tables and Conversion Table
<b>Definitions</b>	List of Definitions
<b>Table W1</b>	Renewable Freshwater Resources
<b>Table W2</b>	Freshwater Abstraction and Use
<b>Table W3</b>	Water Supply Industry (ISIC 36)
<b>Table W4</b>	Wastewater Generation and Treatment
<b>Table W5</b>	Population Connected to Wastewater Treatment
<b>Table W6</b>	Supplementary Information Sheet



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Section: WASTE

TABLE OF CONTENTS	
<b>Guidance</b>	Introduction, Steps to Follow, Description of Tables
<b>Definitions</b>	List of Definitions
<b>Table R1</b>	Generation of Waste by Source
<b>Table R2</b>	Management of Hazardous Waste
<b>Table R3</b>	Management of Municipal Waste
<b>Table R4</b>	Composition of Municipal Waste
<b>Table R5</b>	Management of Municipal Waste — City Data
<b>Table R6</b>	Electronic Waste Generation and Collection
<b>Table R7</b>	Supplementary Information Sheet

# 1. UNSD/UNEP Questionnaire on Environment Statistics



- Since 1999, UNSD has completed 10 data collections on water and waste data (usually biennially) from about 160-170 UN member states. Mandated by UNSC 28<sup>th</sup> session (1995); reinforced at 34<sup>th</sup> session (2003).
- Questionnaires are sent to National Statistical Offices and Ministries of Environment.
- Questionnaires are not sent to Eurostat and OECD members and candidate members. 170+ member states in previous years; about 163 member states in the 2022 collection cycle
- Response rate typically hovers around 50% (2018: 52%; 2020: approx.: 50%).
- No imputation, no estimation.
- Direct outputs are: the UNSD Environmental Indicator Tables, Country Snapshots, and Country Files.
- The current (2022) data collection is the 11<sup>th</sup> one. Thank you for your collaboration!



# 1. UNSD/UNEP Questionnaire on Environment Statistics: disseminated outputs

- **UNSD environmental indicators:** <https://unstats.un.org/unsd/envstats/qindicators> Time series, or most recently available data for selected variables provided by countries. Disseminated after completion of collection cycle.
- **Country files:** [https://unstats.un.org/unsd/envstats/country\\_files](https://unstats.un.org/unsd/envstats/country_files) Individual country data on water and waste. Disseminated periodically during collection cycle. Demand from key users to view Country files as soon as possible.
- **Country snapshots:** <https://unstats.un.org/unsd/envstats/snapshots/> Individual country data spanning many environmental themes.
- **Tailored queries:** Per solicitation from key users.





# 1. UNSD/UNEP Questionnaire on Environment Statistics: current status of 2022 cycle...

- UNSD sent the Questionnaire to National Statistical Office AND Ministries of Environment in early August 2022
- Many countries have since identified a focal point with whom UNSD is liaising.
- **Deadline for submission of responses from countries to UNSD is Friday, 7 October.**



## 2. Water section



### United Nations Statistics Division (UNSD) and United Nations Environment Programme QUESTIONNAIRE 2022 ON ENVIRONMENT STATISTICS

#### Section: WATER

#### TABLE OF CONTENTS

<b>Guidance</b>	Introduction, Steps to Follow, Description of Tables and Conversion Table
<b>Definitions</b>	List of Definitions
<b>Table W1</b>	Renewable Freshwater Resources
<b>Table W2</b>	Freshwater Abstraction and Use
<b>Table W3</b>	Water Supply Industry (ISIC 36)
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**Table W4: Wastewater Generation and Treatment**

Line	Category	Unit
1	<b>Total wastewater generated</b>	
2	<i>by:</i> Agriculture, forestry and fishing ISIC (01-03)	
3	Mining and quarrying (ISIC 05-09)	
4	Manufacturing (ISIC 10-33)	
5	Electricity, gas, steam and air conditioning supply (ISIC 35)	
6	<i>of which by:</i> Electric power generation, transmission and distribution (ISIC 351)	
7	Construction (ISIC 41-43)	
8	Other economic activities	
9	Households	
10	<b>Wastewater treated in urban wastewater treatment plants</b>	1000 m <sup>3</sup> /d
11	<i>of which:</i> Primary treatment	
12	Secondary treatment	
13	Tertiary treatment	
14	<b>Wastewater treated in other treatment plants</b>	1000 m <sup>3</sup> /d
15	<i>of which:</i> Primary treatment	
16	Secondary treatment	
17	Tertiary treatment	
18	<b>Wastewater treated in independent treatment facilities</b>	1000 t
19	Non-treated wastewater	
20	Sewage sludge production (dry matter)	



- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator 6.3.1: **Proportion of domestic and industrial wastewater safely treated**
- Custodian agencies: WHO, UN-HABITAT, UNSD
- Metadata [[link](#)]





**Table W1: Renewable Freshwater Resources**

Line	Category	Unit
1	Precipitation	mio m <sup>3</sup> /y
2	Actual evapotranspiration	
3	Internal flow (=1-2)	
4	Inflow of surface and groundwaters from neighbouring countries	
5	<b>Renewable freshwater resources (=3+4)</b>	
6	Outflow of surface and groundwaters to neighbouring countries	
7	<i>of which:</i> Secured by treaties	
8	Not secured by treaties	
9	Outflow of surface and groundwaters to the sea	

- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator 6.4.2: **Level of water stress: freshwater withdrawal as a proportion of available freshwater resources**
- Custodian agency: FAO. Partner agencies: UNEP, IUCN, UNSD, OECD, Eurostat
- Metadata [[link](#)]

**Table W2: Freshwater Abstraction and Use**

Line	Category	Unit
1	Fresh surface water abstracted	mio m <sup>3</sup> /y
2	Fresh groundwater abstracted	
3	<b>Gross freshwater abstracted (=1+2)</b>	
4	Water returned without use	
5	<b>Net freshwater abstracted (=3-4)</b>	

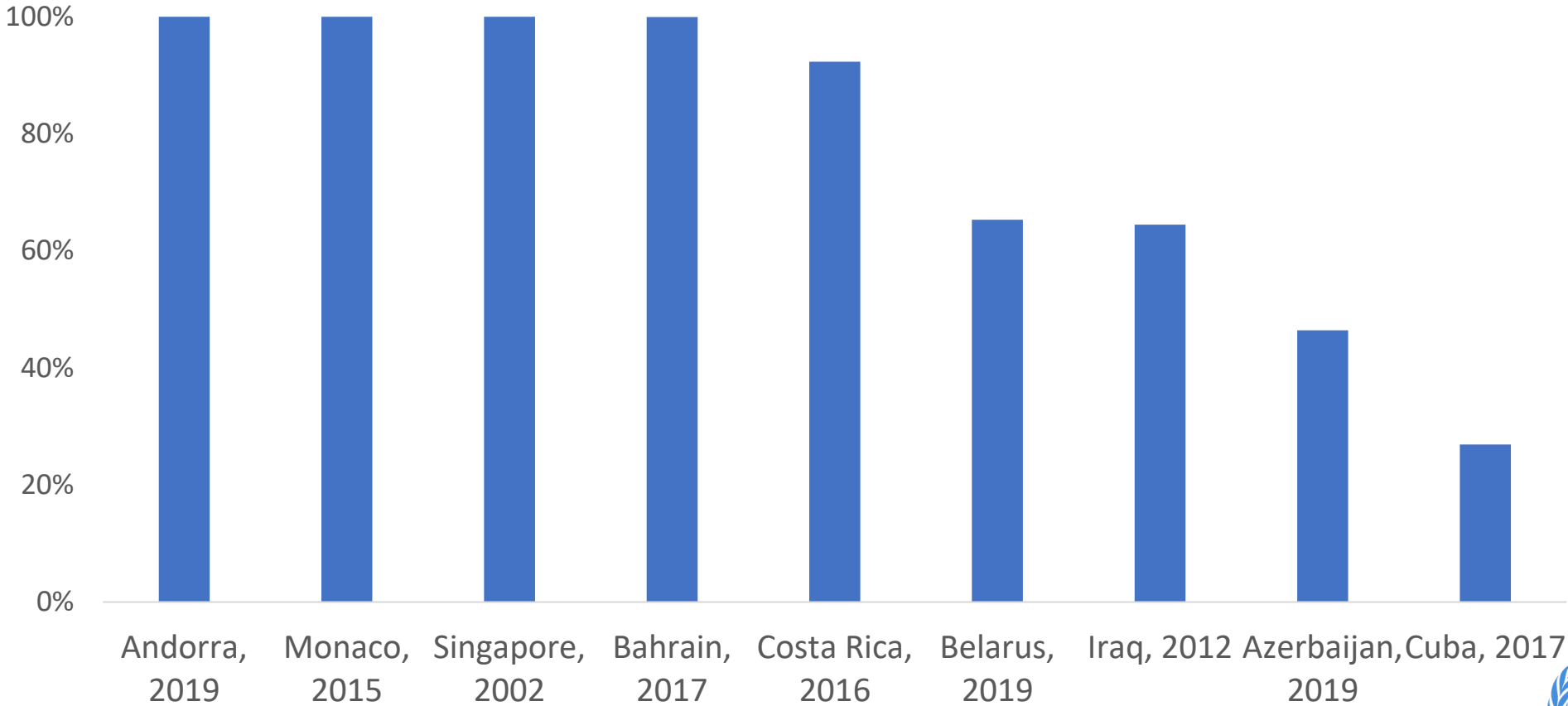




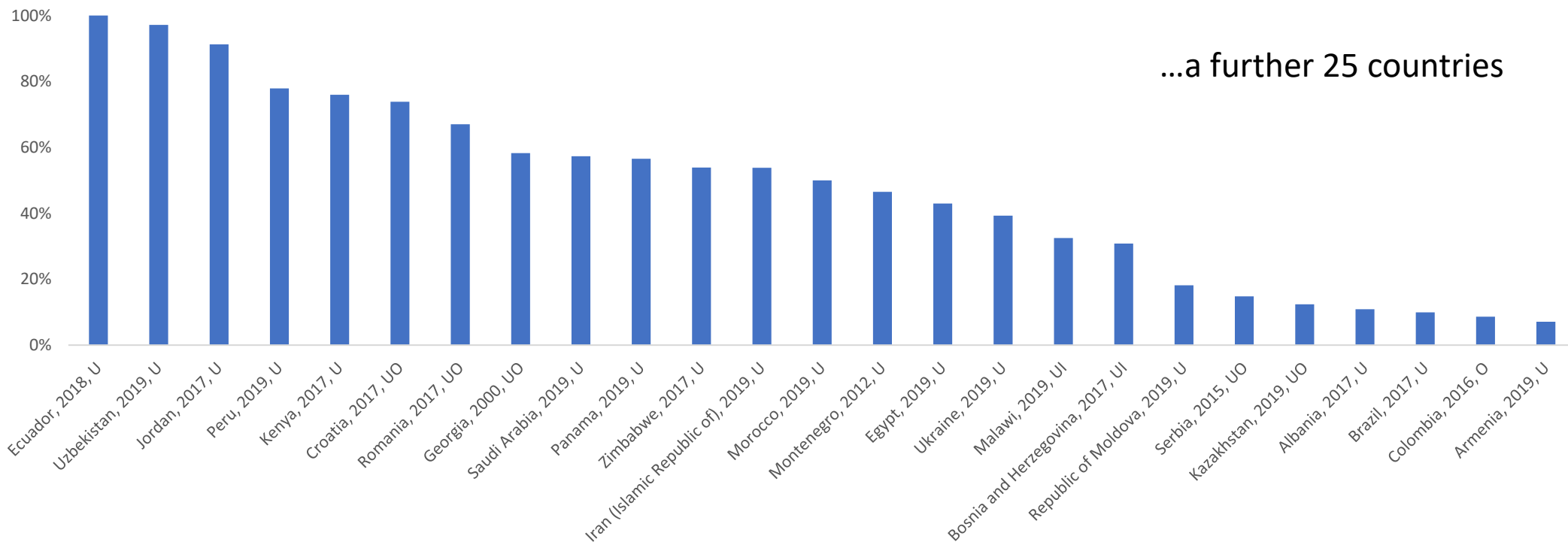
# How can data collected via this Questionnaire inform key policy questions? What proportion of domestic wastewater is safely treated?



Nine countries...



# How can data collected via this Questionnaire inform key policy questions? What proportion of domestic wastewater is safely treated?



O = refers to Wastewater treated in other wastewater treatment plants upon total wastewater generation  
 UO = refers to Wastewater treated in urban wastewater treatment plants upon total wastewater generation  
 U = refers to Wastewater treated in urban and other wastewater treatment plants upon total wastewater generation  
 UI = refers to Wastewater treated in urban wastewater treatment plants and independent wastewater treatment facilities upon total wastewater generation

Detailed definitions of terms used: [https://unstats.un.org/unsd/envstats/Questionnaires/2020/q2020\\_Water\\_English.pdf](https://unstats.un.org/unsd/envstats/Questionnaires/2020/q2020_Water_English.pdf)

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# 3. Waste section



## United Nations Statistics Division (UNSD) and United Nations Environment Programme QUESTIONNAIRE 2022 ON ENVIRONMENT STATISTICS

### Section: WASTE

#### TABLE OF CONTENTS

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<b>Guidance</b>	Introduction, Steps to Follow, Description of Tables
<b>Definitions</b>	List of Definitions
<b>Table R1</b>	Generation of Waste by Source
<b>Table R2</b>	Management of Hazardous Waste
<b>Table R3</b>	Management of Municipal Waste
<b>Table R4</b>	Composition of Municipal Waste
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Country:

City name:

**Table R5: Management of Municipal Waste — City Data**

Line	Category	Unit	2021
1	Total population of the city	1000 inh.	
2	<b>Total amount of municipal waste generated</b>	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		
6	<b>Total amount of municipal waste collected (=4+5)</b>		
7	<b>Amounts going to: Recycling</b>		
8	<b>Composting</b>		
9	<b>Incineration</b>		
10	<b>of which: with energy recovery</b>		
11	<b>Landfilling</b>		
12	<b>of which: controlled landfilling</b>		
13	<b>Other, please specify in the footnote</b>		

- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator **11.6.1: Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal solid waste generated by cities**
- Custodian agencies: UN-HABITAT, UNSD
- Metadata [\[link\]](#)





Country:

**Table R2: Management of Hazardous Waste**

Line	Category	Unit	2021
1	Stock of hazardous waste at the beginning of the year		
2	Hazardous waste generated during the year		
3	Hazardous waste imported during the year		
4	Hazardous waste exported during the year		
5	<b>Hazardous waste treated or disposed of during the year (=6+7+9+10)</b>	tonnes	
6	<i>Amounts going to:</i> Recycling		
7	Incineration		
8	<i>of which: with energy recovery</i>		
9	Landfilling		
10	Other, please specify in the footnote		
11	Stock of hazardous waste at the end of the year (=1+2+3-4-5)		

- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator **12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment**
- Custodian agencies: UNEP, UNSD
- Metadata [\[link\]](#)





Country:

**Table R6: E-Waste Generation and Collection**

Line	Category	Unit	2021
1	Total E-waste Generated		
<i>Amounts going to:</i>			
2	Large equipment		
3	Screens, monitors, and equipment containing screens		
4	Temperature exchange equipment (cooling and freezing equipment)		
5	Small E-waste (=6+7+8)		
6	<i>of which: lamps</i>		
7	<i>of which: small equipment</i>		
8	<i>of which: small IT and telecommunication equipment</i>		
9	Total E-waste collected	1000 t	
<i>Amounts going to:</i>			
10	Large equipment		
11	Screens, monitors, and equipment containing screens		
12	Temperature exchange equipment (cooling and freezing equipment)		
13	Small E-waste (=14+15+16)		
14	<i>of which: lamps</i>		
15	<i>of which: small equipment</i>		
16	<i>of which: small IT and telecommunication equipment</i>		

- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator **12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment;** and
- **12.5.1: National recycling rate, tons of material recycled**
- Custodian agencies for both: UNEP, UNSD
- Metadata for 12.4.2: [\[link\]](#)
- Metadata for 12.5.1: [\[link\]](#)





Table R3: Management of Municipal Waste			
Line	Category	Unit	2021
1	Total amount of municipal waste generated		
2	Municipal waste collected from households		
3	Municipal waste collected from other origins		
4	<b>Total amount of municipal waste collected (=2+3)</b>		
5	Municipal waste imported for treatment/disposal		
6	Municipal waste exported for treatment/disposal		
7	<b>Municipal waste managed in the country (=4+5-6)</b>	1000 t	
8	<b>Amounts going to: Recycling</b>		
9	Composting		
10	Incineration		
11	<i>of which: with energy recovery</i>		
12	Landfilling		
13	<i>of which: controlled landfilling</i>		
14	Other, please specify in the footnote		

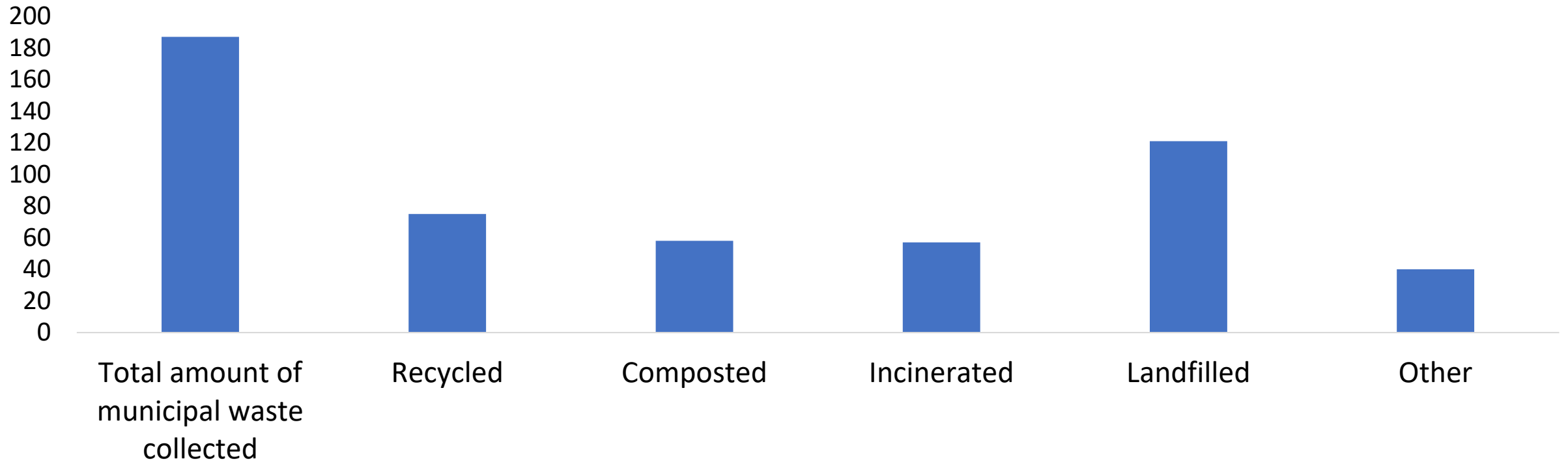
- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator **12.5.1: National recycling rate, tons of material recycled.**
- Custodian agencies: UNEP, UNSD
- Metadata [\[link\]](#)



# SDG indicator 11.6.1 What proportion of municipal solid waste generated is managed in controlled facilities?

- 81 countries, but more importantly 207 cities have provided data at city level for at least one of: Total amount of municipal waste collected; amount recycled; amount incinerated; amount landfilled). These four variables were first collected in 2008.
- Although there are 187 responses for “Total amount of municipal waste collected”, the year of the response may vary. For a country to have values in a recent year for all variables shown (or at least for all shown excluding “other”) is far less likely.

Count of responses to individual variables





## SDG indicators: 12.4.2 (a) Hazardous waste generated per capita.

## 12.4.2 (b) Proportion of hazardous waste treated by treatment type.

How much hazardous waste is generated per capita in a given country? What proportion of hazardous waste generated is actually treated?

- Just over 70 countries have provided data to the Questionnaire for each of the variables, “hazardous waste generated” and “hazardous waste treated”. UNSD disseminates it as a time series alongside an additional 30 or so countries who provide data to the Joint OECD/Eurostat Questionnaire
- Since population data is readily available, the policy question concerning indicator 12.4.2(a) can be answered for a number of countries per the data provided on Hazardous waste generated.
- For 12.4.2(b), the same two variables are needed in the same year for a given country, meaning availability of data is more challenging. UNSD only publishes data as reported by countries, and makes no estimations.





Grateful to countries for their contributions and for continued supply of data (and detailed footnote explanations) for this Questionnaire.

At international level, we encourage use of the data for many purposes (SDG indicators, Global Set of Climate Change Statistics and Indicators, the Framework for the Development of Environment Statistics, System of Environmental Economic Accounting (Water; Waste), etc.

We try to be mindful of respondent burden

**Thank You!**

UNSD Environment Statistics Section  
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