

# I. UNSD/UNEP Questionnaire on Environment Statistics – results and plans for the 2018 round of data collection



UNSD



UN  
environment

United Nations Statistics Division (UNSD) and United Nations Environment Programme (UNEP)  
**QUESTIONNAIRE 2018 ON ENVIRONMENT STATISTICS**

Section: WASTE

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**Fifth Meeting of the Expert Group on Environment Statistics**

New York, United States of America

16-18 May 2018

# UNSD/UNEP Questionnaire on Environment Statistics

- Objective: to provide internationally comparable statistics on environmental issues based on standard questionnaires and methodology.
- About 170 member states and areas in 5 languages.
- Complemented by the OECD/Eurostat Joint Questionnaire on the State of the Environment – their member states.
- UNSD/UNEP Questionnaire is consistent and harmonized with the OECD/Eurostat Questionnaire. Close collaboration is maintained on conceptual issues, validation procedures and data validation.
- Sent to National Statistical Offices and Ministries of Environment (usually) every two years.
- 2018 will be the 9<sup>th</sup> collection round since 1999.
- Better alignment with the System of National Accounts, System of Environmental-Economic Accounting through the use of the International Standard Industrial Classification of all economic activities, rev. 4 (ISIC).

# UNSD/UNEP Questionnaire on Environment Statistics

## - water section

Table W1: Renewable Freshwater Resources

Table W2: Freshwater Abstraction and Use

Table W3: Water Supply Industry (ISIC 36)

Table W4: Wastewater Generation and Treatment

Table W5: Population Connected to Wastewater  
Treatment

Table W6: Supplementary Information Sheet



Modified breakdown of  
ISIC being considered  
per SDG demand

# UNSD/UNEP Questionnaire on Environment Statistics

## - waste section

Table R1: Generation of Waste by Source

Table R2: Management of Hazardous Waste

Table R3: Management of Municipal Waste (Municipal waste generated variable being added per SDG demand)

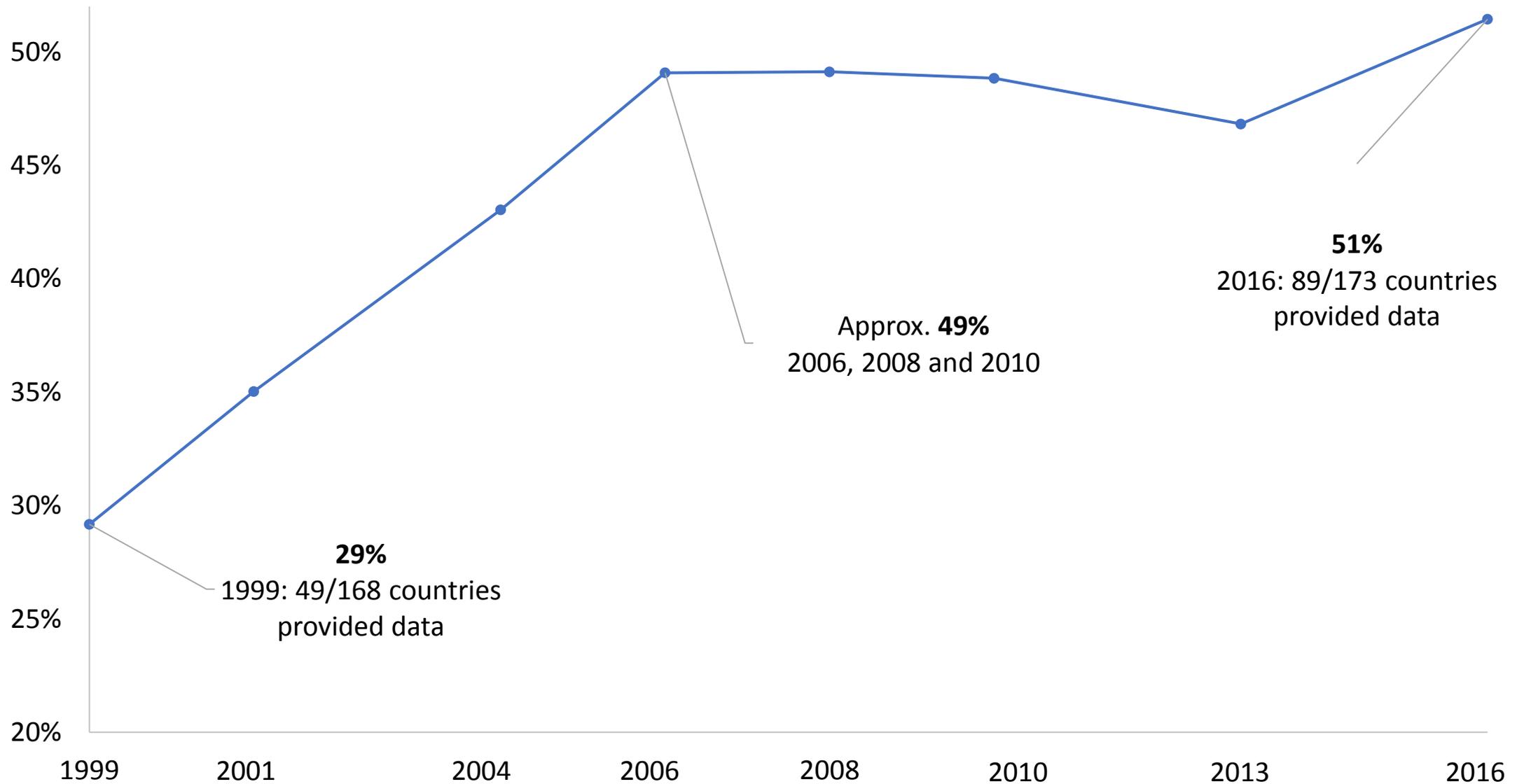
Table R4: Composition of Municipal Waste

Table R5: Management of Municipal Waste — City Data (new variable being added) (Municipal waste generated variable being added per SDG demand)

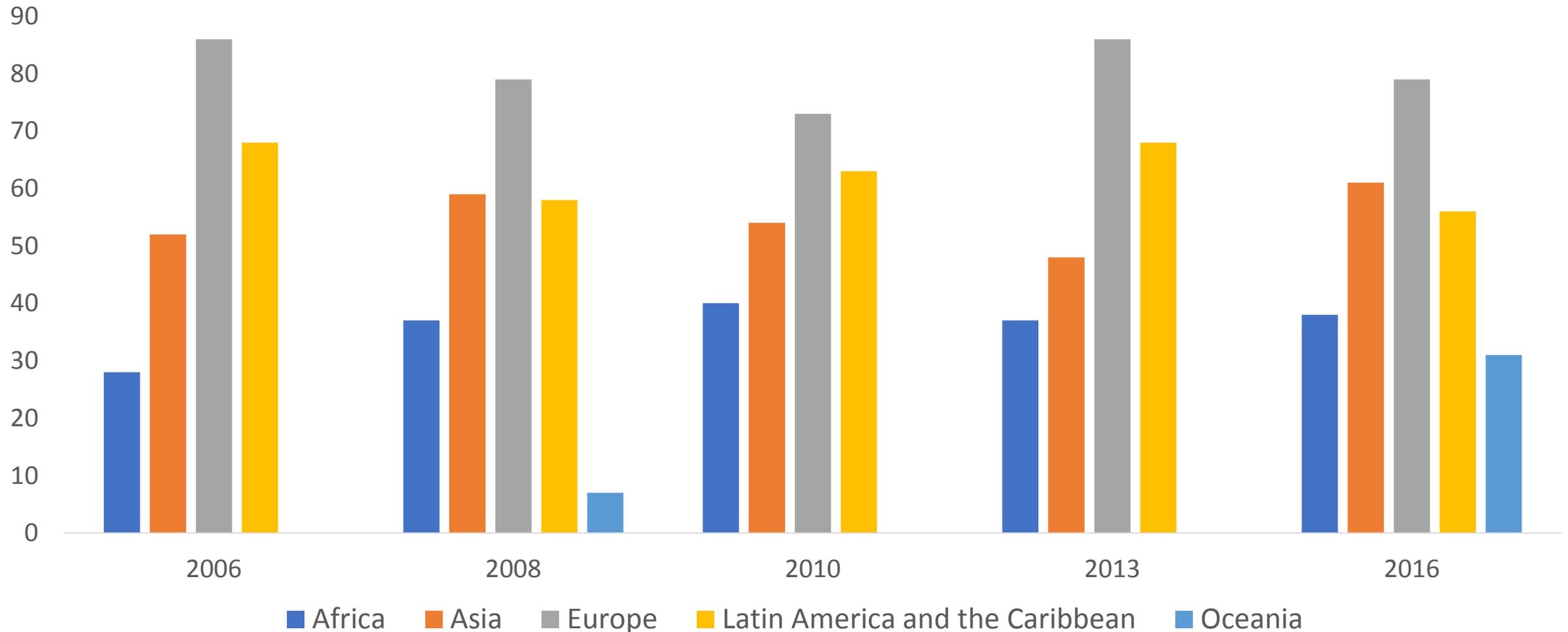
Table R6: Electronic waste generation and collection (Completely NEW in 2018)

Table R7: Supplementary Information Sheet

# 2016 collection round results – response rate above 50%



# % response rate by region from 2006 collection round and onward



Response rates calculated per number of countries or areas in each geographical region on the Statistics Division M49 list as of 2017. The M49 list of countries or areas, codes and abbreviations is available from:

<http://unstats.un.org/unsd/methods/m49/m49alpha.htm>.

# Dialogue with various stakeholders

- UN Environment, UN-HABITAT, Food and Agricultural Organization of the UN, academia, etc. have all been in contact with UNSD regarding use of the Questionnaire to collect data for SDG indicators.
- United Nations University: pursuant to collecting data on electronic waste.
- Eurostat: a Shared Environment Information System (SEIS) project on waste statistics... in 2016, waste section expanded to collect data on generation of hazardous waste by source industry; and populations (total, urban, rural) served by municipal waste collection

# Degree to which UNSD is willing to modify Questionnaire content

- Modification of variables to keep Questionnaire relevant to the **demand** of the day (SDG-related or otherwise), while upholding scientific principles of statistics
- Mindful of any potential loss of existing time series, and the evolving nature of environment statistics (e.g. different ISIC breakdowns being considered)
- Maintaining harmonization with OECD/Eurostat Questionnaire
- Mindful of respondent burden to countries
- Pilot testing in advance of modification to the extent possible (for example, electronic waste pilot, 2017)
- Translation into all five languages

# Citations, user requests and feedback

- Citations of the data collection in academic research, UN agency publications on waste and wastewater, etc.
- Requests received from academics and researchers
- Footnotes provided by countries are of great value
- Comments from users referring to footnotes as handy clues to interpreting data
- Example footnotes (waste section):
  - *“Figure refers to waste generated in the capital city only.”*
  - *“Figure restricted to large waste generators due to limited reporting requirements at the national level.”*
  - *“Data are in cubic metres.” (as opposed to thousands of tonnes)*
  - *“Data refer to recycling and composting together.”*
  - *“Informal sector recycling is excluded.”*

# Data dissemination

- <https://unstats.un.org/unsd/envstats/qindicators> Indicator tables: 25 and possibly more for water; 15 for waste - time series; latest year available; per capita calculations
- <https://unstats.un.org/unsd/envstats/snapshots/> Country snapshots – selection of national environment statistics complemented by key economic and social indicators, including other themes (Air and Climate, Biodiversity, Economy, Energy, Land and Agriculture, Population). Additional sources include UNSD’s sister divisions, and the Food and Agricultural Organization of the UN (FAO)
- [https://unstats.un.org/unsd/envstats/country\\_files](https://unstats.un.org/unsd/envstats/country_files) Country files - Validated country replies to the water and waste sections of the Questionnaire.

Consumption of ozone depleting CFCs (ODP t)	0	2013
<b>Biodiversity</b>		
Proportion of terrestrial and marine areas protected (%)	27	2014
Number of threatened species	89	2016
Fish catch (tonnes)	96,962	2015
Change in fish catch from previous year (%)	-46	2015
<b>Economy</b>		
GDP growth rate from previous year (%)	1	2016
GDP per capita (at current prices - \$US)	998	2016

## Population

Population (1000)	15,603	2015
Population growth rate from previous year (%)	2	2015

## Waste

Total population served by municipal waste collection (%)	97 <sup>1</sup>	2011
Municipal waste collected (1000t)	335 <sup>2</sup>	2015
Hazardous waste generated per capita (kg)	0 <sup>3</sup>	2015
Proportion of hazardous waste treated or disposed (%)	100 <sup>4</sup>	2011
Proportion of municipal waste recycled (%)	5 <sup>2</sup>	2015

# Data dissemination – indicator tables (time series)

More targeted to data miners; better allowing for coding, user's modification of data per their needs...



UNSD

## Renewable freshwater resources

Date of release: 27-Mar-18  
 Coverage: 70 Countries  
 Series Type: Time series  
 Series Start: 1990  
 Series End: 2015  
 Unit: Million cubic metres

### Definitions & Technical notes:

**Renewable freshwater resources:** = Internal flow + Inflow of surface and groundwaters from neighbouring countries

For more information on the definitions, please see the [UNSD/UNEP Questionnaire 2016 on Environment Statistics](#)

... denotes no data available.

### Data Quality:

When interpreting these tables, it should be borne in mind that the definitions and estimation methods employed

[footnotes](#).

### Source:

The Environment Statistics Database contains selected water and waste statistics by country. Statistics on water and waste are based on official statistics supplied by national statistical offices and/or ministries of environment (or equivalent institutions) in countries in response to the biennial [UNSD/UNEP Questionnaire on Environment Statistics](#). They were complemented by data on EU and OECD member and partner countries from Eurostat and OECD. With the following two exceptions, every country's data are sourced from UNSD.

1. All data are sourced from Eurostat for the following 32 countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom of Great Britain and Northern Ireland.

2. All data are sourced from OECD for the following nine countries: Australia, Canada, Chile, Israel, Japan, Mexico, New Zealand, Republic of Korea, and the United States of America.

Choice of preferred data source between Eurostat and OECD is made in an attempt to have as much data availability as possible for the user and to capture as much data as possible for all UN member states.

Country	2012	2012 Foot	2013	2013 Foot	2014	2014 Foot	2015	2015 Footnotes
Albania	...		32915		38865		35578	
Algeria	12707	...		...		...		
Andorra	218.615		345.1228		363.822		276.459	
Armenia	5822		6379		5532		6441	
Azerbaijan	26472		24370		23651		22202	
Bangladesh	1214805		1574049		1425979		1481150	
Bosnia and Herzegovina	23116.6		26148.21		32244.2		21592.6	
Brazil	9774977		13733036		...		...	
Bulgaria	83710		109659		118740		105982	
Burundi	...	...		...		...		
China	2952900		2795800		2726700		2796300	
China, Hong Kong	812.3		2094.1		1782.6		1019.5	
Costa Rica	118617	2	88177.23	2	105919	2	103120	2

Footnote

1 This is the sum of the national water resources available per watershed.

2 Renewable freshwater resources = Internal flow, because no inflows or outflows of water from other territories are accounted for.

3 Estimate.

4 In km<sup>3</sup>.

# Data dissemination – indicator tables (latest year available)



UNSD

## Water Resources

Date of release: 27-Mar-18  
 Coverage: 63 Countries  
 Series Type: Latest Year  
 Unit: Million cubic metres (mio m3) or percentage (%) as indicated

### Definitions & Technical notes:

**Freshwater abstracted:** Water removed from any water source (surface water sources, such as rivers, lakes, reservoirs or rainwater; and groundwater sources) either permanently or temporarily. Includes abstraction by the water supply industry for distribution and direct abstraction by other activities for own use. The volume of water abstracted is broken down by main groups of economic activity of the abstractors (according to ISIC Rev 4) and households.

### Renewable freshwater resou

**Internal flow** is the total volume of water that is available for use. It is calculated as the actual evapotranspiration and the runoff from the land surface.

**Inflow of surface and groundwater** is the total volume of water that enters a country from other countries. It is divided 50/50 between the surface and groundwater.

For more information on the methodology, please refer to the Technical Notes. ... denotes no data available.

Calculation of Freshwater abstracted as a proportion of renewable freshwater resources

Country	latest year available	Freshwater abstracted	Footnotes	latest year available	Renewable freshwater resources	Footnotes	latest year available	Freshwater abstracted as a proportion of renewable freshwater resources
		mio m <sup>3</sup>			mio m <sup>3</sup>			%
Albania	2015	1194		2015	35578		2015	3.4
Algeria	2015	5512.6602		2012	12707	...	...	
Andorra	2015	15.669941	1	2015	276.4588318		2015	5.7
Armenia	2015	3271.7		2015	6441		2015	50.8
Azerbaijan	2015	11689		2015	22202		2015	52.6
Bangladesh	2015	953.71997	2	2015	1481150		2015	0.1
Footnote number	Footnote							
1	Excluding abstraction for hydroelectric generation.							
2	Summation of data provided by Dhaka, Chittagong and Khulna Water Supply and Sewerage Authority; only three cities are considered.							

# II. Selected SDG indicators related to the UNSD/UNEP Questionnaire on Environment Statistics – indicators 6.3.1, 6.4.1, 6.4.2, 11.6.1, 12.4.2, 12.5.1



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# The Sustainable Development Goals

- On 6 March 2015, at its 46<sup>th</sup> session, the United Nations Statistical Commission (UNSC) created the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs), composed of Member States and including regional and international agencies as observers... tasked to develop and implement the global indicator framework for the Goals and targets of the 2030 Agenda... refinements on several indicators, at the 48th session of the UNSC in March 2017.
- 25 September, 2015: The 193-Member United Nations General Assembly today formally adopted the [2030 Agenda for Sustainable Development](#), along with a set of bold new Global Goals, which Secretary-General Ban Ki-moon hailed as a universal, integrated and transformative vision for a better world.

# The Sustainable Development Goals



# The Sustainable Development Goals

**6** CLEAN WATER  
AND SANITATION



**11** SUSTAINABLE CITIES  
AND COMMUNITIES



**12** RESPONSIBLE  
CONSUMPTION



IAEG-SDGs tier classification for global SDG indicators (updated 15 Dec 2017):

[https://unstats.un.org/sdgs/files/Tier%20Classification%20of%20SDG%20Indicators\\_15%20Dec%202017\\_web%20final.pdf](https://unstats.un.org/sdgs/files/Tier%20Classification%20of%20SDG%20Indicators_15%20Dec%202017_web%20final.pdf)



Ensure availability and sustainable management of water and sanitation for all

Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

**=> Indicator 6.3.1: Proportion of wastewater safely treated**

Target 6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

**=> Indicator 6.4.1: Change in water-use efficiency over time**

**=> Indicator 6.4.2: Level of water stress: freshwater withdrawal as a proportion of available freshwater resources**

# Indicator 6.3.1: Proportion of wastewater safely treated (tier II)

- Custodian Agencies: WHO, UN-Habitat, UNSD; partner agencies: UN Environment, OECD and Eurostat
- Endeavouring to use the UNSD/UNEP Questionnaire to the extent possible.
  - Response rates remain a challenge
- UNSD participated in an Expert Group Meeting on Global Wastewater Monitoring for the SDGs with co-custodians and other experts.
- Available metadata are here: <https://unstats.un.org/sdgs/metadata/files/Metadata-06-03-01.pdf>

Table W4, Line:	Category	Unit
1	<b>Total wastewater generated</b>	1000 m <sup>3</sup> /d
7	Wastewater treated in urban wastewater treatment plants	
11	Wastewater treated in other treatment plants	
15	Wastewater treated in independent treatment facilities	

Indicator = (Lines 7 + 11 + 15)/Line 1

# W4: Wastewater Generation and Treatment

Line	Category	Unit
1	Total wastewater generated	Millions metres <sup>3</sup> per year
2	By: Agriculture, forestry and fishing (ISIC 01-03)	
3	Manufacturing (ISIC 10-33)	
4	Electricity industry (ISIC 351)	
5	Other economic activities	
6	Households	
7	Wastewater treated in urban wastewater treatment plants	
8	Of which: Primary treatment	
9	Secondary treatment	
10	Tertiary treatment	
11	Wastewater treated in other treatment plants	
12	Of which: Primary treatment	
13	Secondary treatment	
14	Tertiary treatment	
15	Wastewater treated in independent treatment facilities	
16	<b>Non-treated wastewater</b>	
17	Sewage sludge production (dry matter)	1000 t

# Indicator 6.4.1: Change in water-use efficiency over time (tier II)

- Custodian Agency: FAO; partner agencies: UNSD, UN Environment, IUCN, OECD and Eurostat
- Using the seven variables, a contribution to a prospective estimate of the indicator can be derived.
- Application of International Standard Industrial Classification or all economic activities (ISIC) rev. 4.
- Ensuring data provided by countries can inform for SDG indicator compilation, but also for environment statistics, and environment-economic accounting... considering modifying ISIC breakdown.
- Ensuring no duplicate data collections are sent by international organisations to countries.
- Issues raised in discussions include definition of “abstraction” as opposed to “use”. Per the Questionnaire, “Total freshwater available for use” is equal to “Freshwater abstracted” + “Desalinated water” + “Reused water” + “Imports of water” – “Exports of water”.
- Abstraction is known to be used as a proxy for Use.
- Available metadata are here: <https://unstats.un.org/sdgs/metadata/files/Metadata-06-04-01.pdf>

Tables W2 and W3, line:	Category	Unit
W2, 4	Freshwater abstracted by water supply industry (ISIC 36)	millions m <sup>3</sup> /y
W2, 5	Freshwater abstracted by households	
W2, 6	Freshwater abstracted by agriculture, forestry and fishing (ISIC 01-03)	
W2, 7	Freshwater abstracted by manufacturing (ISIC 10-33)	
W2, 8	Freshwater abstracted by electricity industry (ISIC 351)	
W2, 9	Freshwater abstracted by other economic activities	
W3,1	Gross freshwater supplied by water supply industry (ISIC 36)	

# Table W2: Freshwater Abstraction and Use

Line	Category	Unit
1	Fresh surface water abstracted	Millions m <sup>3</sup> per year
2	Fresh groundwater abstracted	
3	<b>Freshwater abstracted (=1+2)</b>	
	<i>Of which abstracted by:</i>	
4	Water supply industry (ISIC 36)	
5	Households	
6	Agriculture, forestry and fishing (ISIC 01-03)	
7	Manufacturing (ISIC 10-33)	
8	Electricity industry (ISIC 351)	
9	Other economic activities	

# Table W3: Water Supply Industry (ISIC 36)

Line	Category	Unit
1	Gross freshwater supplied by water supply industry (ISIC 36)	Millions m <sup>3</sup> per year
2	Losses during transport by (ISIC 36)	
3	Net freshwater supplied by water supply industry (ISIC 36) (=1-2) (=4+5+6+7+8)	
of which supplied to:		
4	Households	
5	Agriculture, forestry and fishing (ISIC 01-03)	
6	Manufacturing (ISIC 10-33)	
7	Electricity industry (ISIC 351)	
8	Other economic activities	
	Population supplied by water supply industry (ISIC 36)	
19	Total population supplied by water supply industry (ISIC 36)	%
10	Urban population supplied by water supply industry (ISIC 36)	
11	Rural population supplied by water supply industry (ISIC 36)	

# Indicator 6.4.2: Level of water stress: freshwater withdrawal as a proportion of available freshwater resources (tier I)

- Custodian Agency: FAO; partner agencies: UNSD, UN Environment, IUCN, OECD and Eurostat
- Using the two variables below, a contribution to a prospective estimate of the indicator can be derived.
- Metadata are available here: <https://unstats.un.org/sdgs/metadata/files/Metadata-06-04-02.pdf>

Tables W1, W2, line:	Category	Unit
W1,5	Renewable freshwater resources	millions m <sup>3</sup> /y
W2,3	Freshwater abstracted	

Indicator = Line W2,3/Line W1,5

# Table W2: Freshwater Abstraction and Use

Line	Category	Unit
1	Fresh surface water abstracted	Millions m <sup>3</sup> per year
2	Fresh groundwater abstracted	
<b>3</b>	<b>Freshwater abstracted (=1+2)</b>	
	<i>Of which abstracted by:</i>	
4	Water supply industry (ISIC 36)	
5	Households	
6	Agriculture, forestry and fishing (ISIC 01-03)	
7	Manufacturing (ISIC 10-33)	
8	Electricity industry (ISIC 351)	
9	Other economic activities	

# Table W1: Renewable Freshwater Resources

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



Make cities and human settlements inclusive, safe, resilient and sustainable

- Target 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

**=> Indicator 11.6.1: Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities**

# Indicator 11.6.1: Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities (tier II)

- Custodian Agencies: UN-Habitat and UNSD; partner agencies: UN Environment
- UNSD involved in methodology and data collection
- UNSD participating in UN Environment and UN-HABITAT Joint Expert Group Meeting on Waste SDG indicators 11.6.1, 12.4.2, 12.5.1 (participating in refinements to draft methodologies)
- Issues:
  - No internationally agreed definition of urban solid waste
    - => Invent one: What should be in?
    - => Use a proxy: Municipal waste ?
  - What is adequate final discharge?
  - Denominator: Waste "collected" or "generated" ? => Difficult to estimate municipal waste generated.
  - Definition of a minimum number or size of cities a country should report on.
  - OECD/Eurostat do not collect data at the city level. Eurostat did a pilot at the European regions level => No city level for "developed" countries.
- Available metadata are here: <https://unstats.un.org/sdgs/metadata/files/Metadata-11-06-01.pdf>

# Indicator 11.6.1: Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities (tier II)

- Using the four variables, a prospective estimate of the indicator can be derived.
- Adequate final discharge: Recycling, composting and incineration with energy recovery.
- Time series exist for waste “collected” in the UNSD/UN Environment Questionnaire at the city level. UNSD so far does not collect on municipal waste generated but will be in 2018.

Table R5, line:	Category	Unit
1	<b>Total amount of municipal waste generated (NEW!)</b>	1000 t
6	Recycling	
7	Composting	
9	Incineration with energy recovery	

$$\text{Indicator} = (\text{Lines } 6 + 7 + 9) / \text{Line } 5$$

# Table R5: Management of Municipal Waste – City Data

Line	Category	Unit
1	Total population of the city	1000 inh.
2	<b>Total amount of municipal waste generated (NEW!)</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 (=3+4)</b>	
7	<i>Amounts going to:</i> Recycling	
8	Composting	
9	Incineration	
10	<i>of which:</i> with energy recovery	
11	Landfilling	
12	<i>of which:</i> controlled landfilling	
13	Other, please specify in the footnote	



## Ensure sustainable consumption and production patterns

- Target 12.4: By 2030, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

**=> Indicator 12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment**

**=> Indicator 12.5.1: National recycling rate, tons of material recycled**

# Indicator 12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment (tier III)

- Custodian Agencies: UN Environment (more specifically the BRS Secretariat) and UNSD; partner agencies: OECD and Eurostat
- UNSD involved in the methodology and data collection
- Issues:
  - Terminology of the UNSD/UN Environment Questionnaire and national reports under the Basel Convention not harmonized.
  - Definition of treatment: recycled and incinerated or incinerated with energy recovery? (The Basel Convention does not have a definition of treatment)
  - Inclusion of imports-exports => As they can be important for some countries, they should be included.
  - Year of treatment can be different from year of generation.
- Work plan available here: <https://unstats.un.org/sdgs/tierIII-indicators/files/Tier3-12-04-02.pdf> which references the UNSD/UNEP Questionnaire and OECD and Eurostat data collections

# Indicator 12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment (tier III)

- Inclusion of imports-exports in the denominator => use of line 5: Hazardous waste treated or disposed of during the year.
- Treatment defined as recycled and incinerated.
- Using the four variables below, prospective estimates of the indicator can be derived, one per capita, and two for the types of treatment.
- Both data from the UNSD/UN Environment Questionnaire and the national reports under the Basel Convention should be viewed as complementary (e.g. in terms of number of countries reporting) and can be used for quality checks.

Indicator = Line 2/Population	Indicator = Line 6/Line 2	Indicator = Line 7/Line 2
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Table R2, line:	Category	Unit
2	Hazardous waste generated during the year	tonnes
5	Hazardous waste treated or disposed of during the year	
6	Recycling	
7	Incineration	

# Table R2: Management of Hazardous Waste

Line	Category	Unit
1	Stock of hazardous waste at the beginning of the year	tonnes
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>	
6	<i>Amounts going to:</i> Recycling	
7	Incineration	
8	<i>of which:</i> with energy recovery	
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)	

## Indicator 12.5.1: National recycling rate, tons of material recycled (tier III)

- Custodian Agencies: UN Environment and UNSD; partner agencies: OECD and Eurostat
- UNSD involved in the methodology and data collection
- Issues:
  - Difficult to have a statistics representing all waste, and other types of waste (hazardous waste) already monitored by other indicators => use of municipal waste as a proxy.
  - Discussion with respect to municipal waste “collected” as opposed to municipal waste “generated” is also a feature (as in indicator 11.6.1).
  - Year of generation or collection can be different from year of recycling.
  - Inclusion of imports-exports of municipal waste.
  - Work plan available here: <https://unstats.un.org/sdgs/tierIII-indicators/files/Tier3-12-05-01.pdf> which references the UNSD/UNEP Questionnaire and OECD and Eurostat data collections

# Indicator 12.5.1: National recycling rate, tons of material recycled (tier III)

- Using two of the three variables, a prospective estimate of the indicator can be derived.
- UNSD will collect data on “municipal waste generated” in addition to “municipal waste collected” in 2018.
- Imports-exports can be either included (line 6) or not (line 3).

Table R3, line:	Category	Unit
1	Total amount of municipal waste generated <b>(NEW!)</b>	1000 t
7	Municipal waste managed in the country	
8	Recycling	

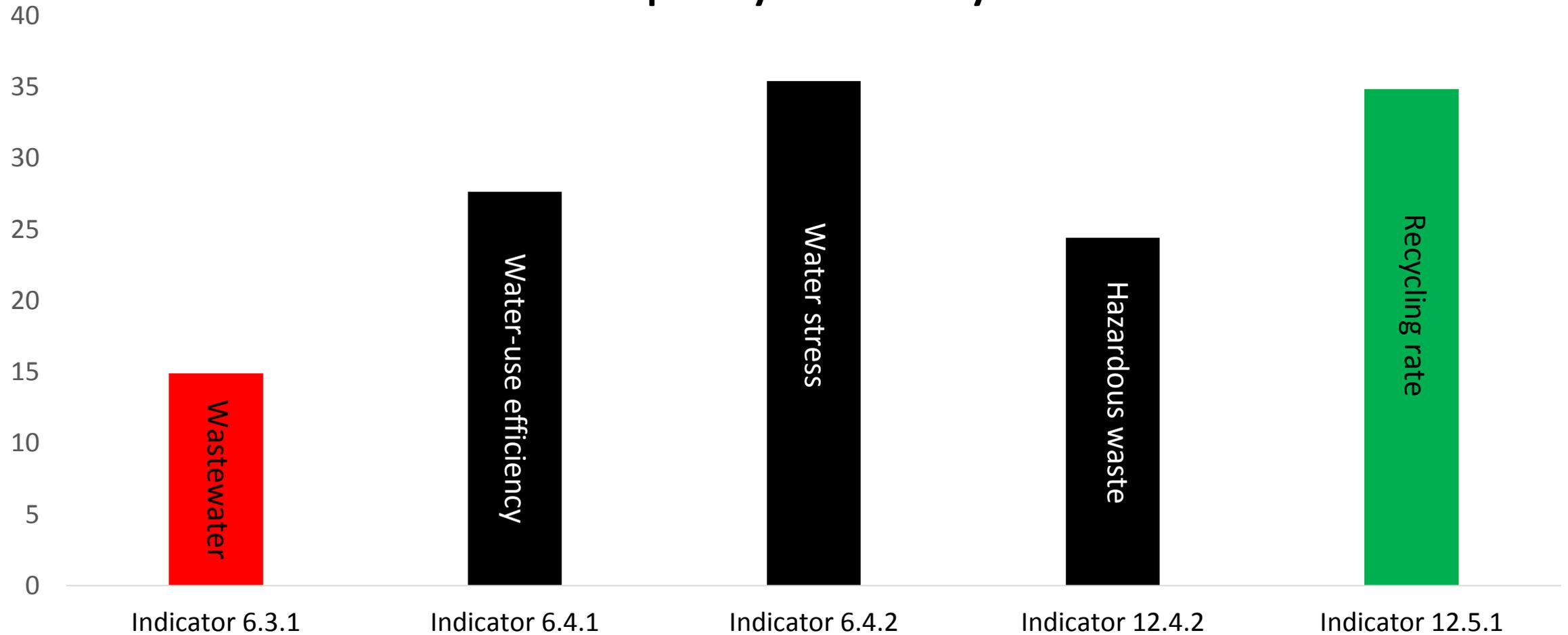
Indicator = Line 8/Line 7; or

Indicator = Line 8/Line 1

Table R3:  
Management of  
Municipal  
Waste

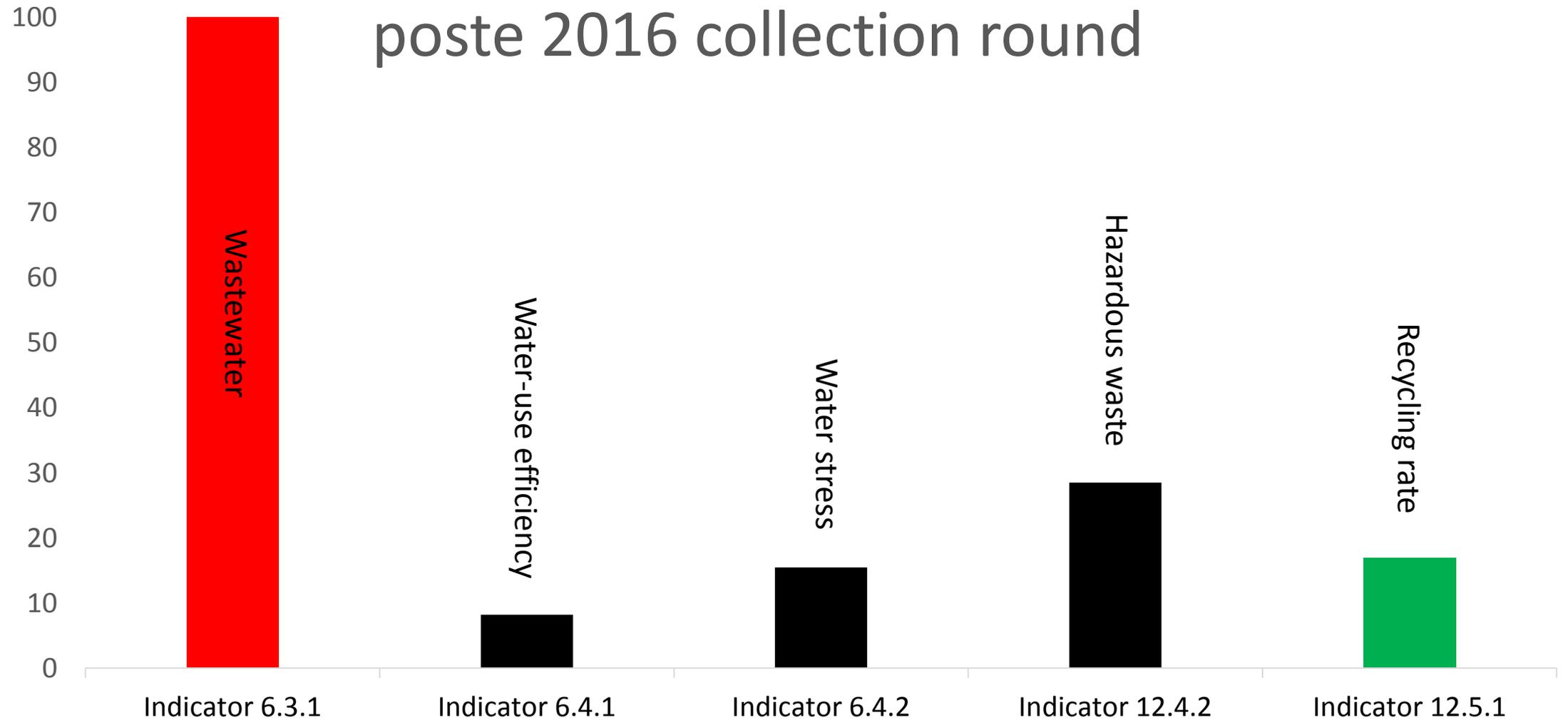
Line	Category	Unit
1	Total amount of municipal waste generated <b>(NEW!)</b>	1000 t
2	Municipal waste collected from households	
3	Municipal waste collected from other origins	
4	<b>Total amount of municipal waste collected (=1+2)</b>	
5	Municipal waste imported for treatment/disposal	
6	Municipal waste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

# Average number of responses for variables relevant to SDG indicators per year for years 2010-2015



Indicator 11.6.1 (urban solid waste, city level) omitted from analysis since its data are collected at the city rather than country level.

# Percentage increase in responses for variables relevant to SDG indicators between ex poste 2013 collection round and ex poste 2016 collection round



Indicator 11.6.1 (urban solid waste, city level) omitted from analysis since its data are collected at the city rather than country level.