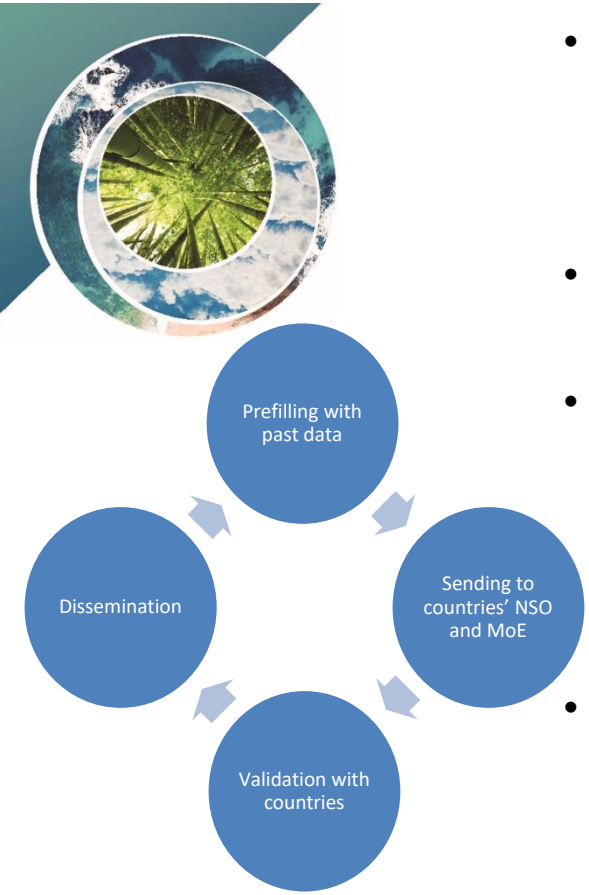
UNSD/UNEP Questionnaire on Environment Statistics – Waste

Environment Statistics Section
United Nations Statistics Division (UNSD)

Taller Nacional de Estadísticas Ambientales y de Cambio Climático en Perú

Lima, 13-15 Desembre 2022

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 28th session (1995); reinforced at 34th 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.: 46%).
- No imputation, no estimation. No change in variables collected in 2022 compared to 2020. Instead, focus is more on boosting response rates, especially to those variables related to SDG indicators
- The current (2022) data collection is the 11th one. Thank you for your collaboration!

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 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 (often World Health Organization, UN Environment Programme, UN-HABITAT, academia).

Waste section and its many uses…

UNSD

ONU medio ambiente
Programa de las Naciones Unidas para el Medio Ambiente

División de Estadística de las Naciones Unidas (UNSD) y Programa de las Naciones Unidas para el Medio Ambiente

CUESTIONARIO 2022 ESTADISTICAS AMBIENTALES

Sección: DESECHOS

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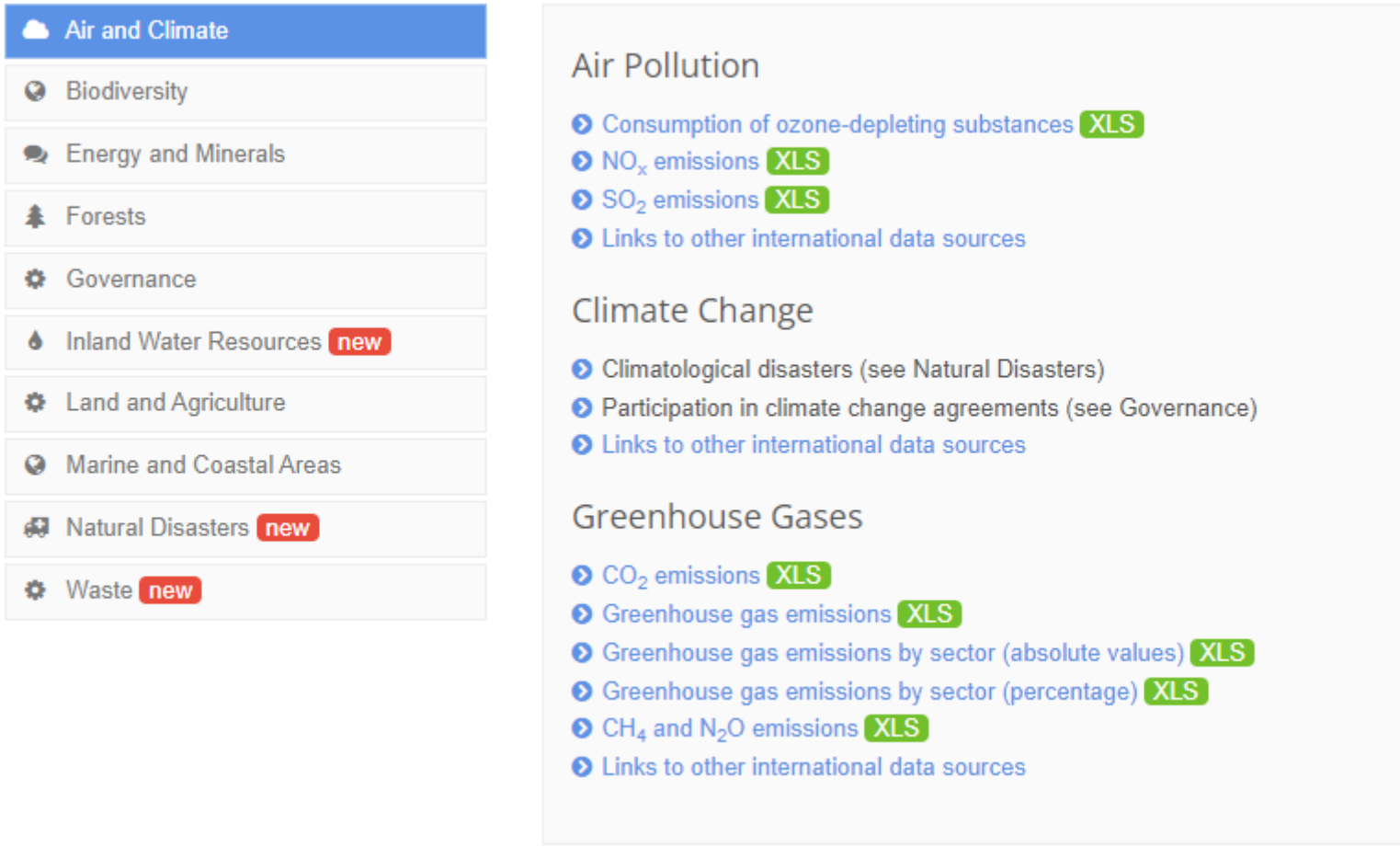
Dissemination: Environment statistics — UN Data

Dissemination: UNSD Environmental Indicators



- https://unstats.un.org/unsd/envstats/qindicators

Country Snapshot - United Republic of Tanzania

Data | Sources and Footnotes

Air and climate

Emissions of:		Year
SO_2 (1000t)	176	1994
SO_2 per capita (kg)	6	1994
NO_x (1000t)	161	1994
NO_x per capita (kg)	6	1994
CO_2 (million tonnes)	3	1994
CO_2 per capita (tonnes)	0	1994
GHG (million tonnes CO_2 eq.)	39	1994
GHG per capita (tonnes CO_2 eq.)	1	1994
Consumption of ozone depleting CFCs (ODP t)	0	2013

Note: The boundaries, the names shown, and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Biodiversity

Proportion of terrestrial and marine areas protected (%)	31	2018
Number of threatened species	1,320	2019
Fish catch (tonnes)	377,046 [1]	2018
Change in fish catch from previous year (%)	-4 [1]	2018

Economy

GDP growth rate from previous year (%)	7	2018
GDP per capita (at current prices - $US)	1,044	2018
% Value added: agriculture, hunting, forestry, fishing	31	2018
% Value added: mining, manufacturing, utilities	15	2018

Energy

Total energy supply (PJ)	855	2017
Energy supply per capita (GJ)	15	2017
Energy use intensity (MJ per USD constant 2011 PPP GDP))	166	2017
Renewable electricity production (%)	30	2017

Land and agriculture

Total area (sq km)	885,800 [1]	2018
Agricultural land (sq km)	396,500 [1]	2018
Arable land (% of agric. land)	34 [1]	2018
Permanent crops (% of agric. land)	5 [1]	2018
Permanent meadows and pastures (% of agric. land)	61 [1]	2018
Change in agricultural land area since 1990 (%)	27	2018
Forest area (sq km)	466,830	2018
Change in forest area since 1990 (%)	-19	2018

Population

Population (1000)	58,005 [2]	2019
Population growth rate from previous year (%)	3 [2]	2019

Waste

Total population served by municipal waste collection (%)	...	
Municipal waste collected (1000t)	513 [3]	2015
Hazardous waste generated per capita (kg)	0	2015
Proportion of hazardous waste treated or disposed (%)	91	2015
Proportion of municipal waste recycled (%)	1	2015

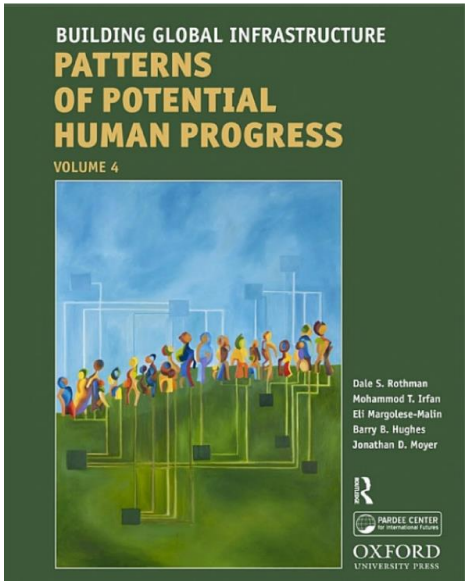
Water and sanitation

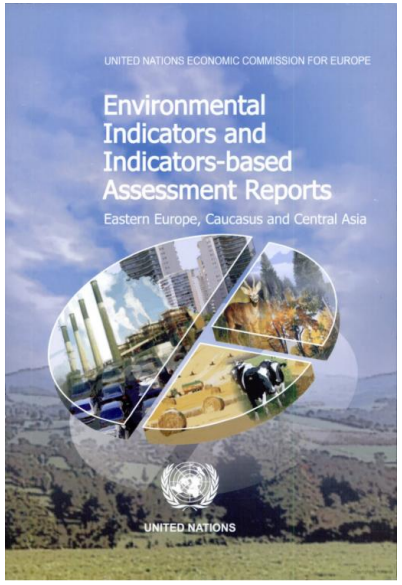
Renewable freshwater resources per capita (m^3)	...	
Proportion of wastewater treated (%)	16 [4]	2017
Proportion of freshwater abstracted (%)	...	

Dissemination: Country Snapshot — Tanzania

Key Data Users

- International agencies (UNEP, UN-HABITAT, WORLD BANK)
- Academia/Students
- Journalists
- General Public





R1: Generation of Waste by Source (thousands of tonnes)

Section: WASTE

Country:

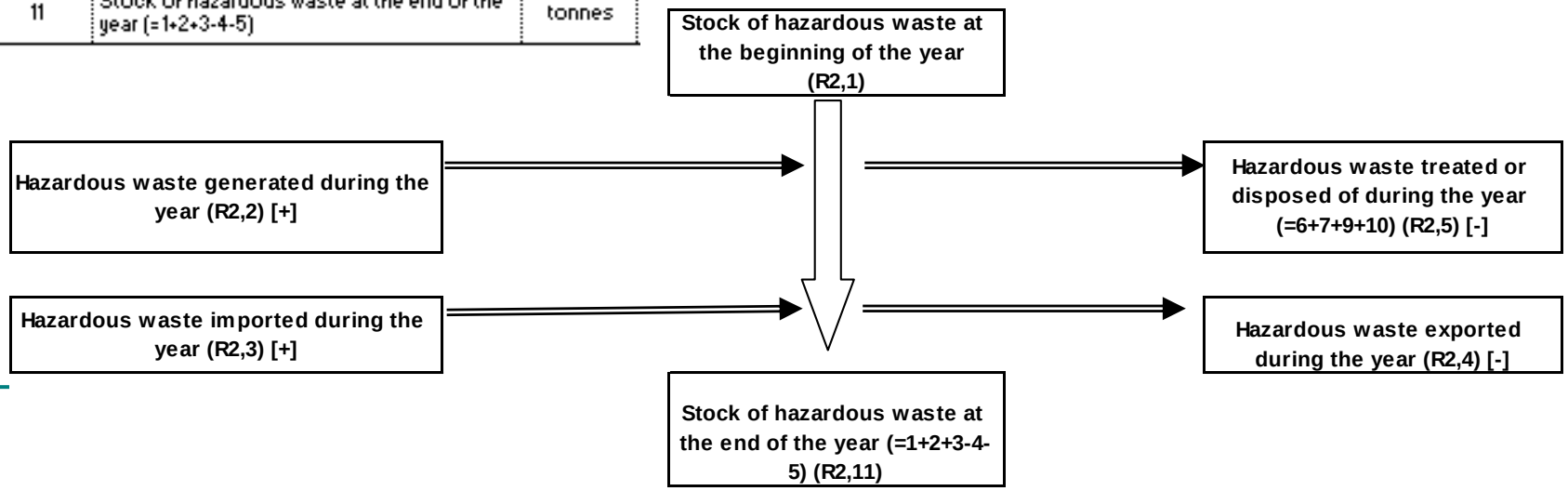
Table R1: Generation of Waste by Source

Line	Category	Unit
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

R2: Management of Hazardous Waste

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	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



R3 and R5: Management of Municipal Waste (national and city levels)

Table R3: Management of Municipal Waste

Line	Category	Unit
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	%

Table R5: Management of Municipal Waste — City Data

Line	Category	Unit	2000
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	

R4: Composition of Municipal Waste (%)

Table R4: Composition of Municipal Waste

• If the

Line	Category	Unit	2000
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	%	
9	TOTAL	%	100

R6: E-Waste Generation and Collection (1000 t)

Table R6: E-Waste Generation and Collection

Line	Category	Unit
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

Country	Latest Year	Total E-waste generated	Total E-waste collected
Kenya	2017	3.218	…
Niger	2019	10.956	…
Senegal	2017	4410[1]	10.47[1]
Uganda	2017	18547[2]	…
Tanzania	2019	35.755	…
Zimbabwe	2017	4	0.03

[1]Concerns only equipment such as computers, telephones (fixed and portable), modem printers, routers, inverters. Household WEEE such as televisions, irons, refrigerators, microwaves, etc. are not part of it.

[2] Estimated data using the UNU tool for 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.

Examples of how useful it can be to answer the questionnaire

Country:

City name:

Table R5: Management of Municipal Waste — City Data

Line	Category	Unit	2021	
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			
6	**Total amount of municipal waste collected (=4+5)**			
7	***Amounts going to:*** **Recycling**			
8	**Composting**			
9	**Incineration**			
10	***of which:*** **with energy recovery**			
11	**Landfilling**			
12	***of which:*** **controlled landfilling**			
13	**Other, please specify in the footnote**			

- 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	tonnes		
2	Hazardous waste generated during the year			
3	Hazardous waste imported during the year			
4	Hazardous waste exported during the year			
5	**Hazardous waste treated or disposed of during the year (=6+7+9+10)**			
6	*Amounts going to:* Recycling			
7	Incineration			
8	*of which:* 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)			

- 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]

Table R3: Management of Municipal Waste

Line	Category	Unit	2021	
1	Total amount of municipal waste generated	1000 t		
2	Municipal waste collected from households			
3	Municipal waste collected from other origins			
4	**Total amount of municipal waste collected (=2+3)**			
5	Municipal waste imported for treatment/disposal			
6	Municipal waste exported for treatment/disposal			
7	**Municipal waste managed in the country (=4+5-6)**			
8	*Amounts going to:* Recycling			
9	Composting			
10	Incineration			
11	*of which:* with energy recovery			
12	Landfilling			
13	*of which:* controlled landfilling			
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]

Country:

Table R6: E-Waste Generation and Collection

Line	Category	Unit	2021
1	**Total E-waste Generated**	1000 t	
2	*Amounts going to:* 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	*of which:* lamps		
7	*of which:* small equipment		
8	*of which:* small IT and telecommunication equipment		
9	**Total E-waste collected**		
10	*Amounts going to:* 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	*of which:* lamps		
15	*of which:* small equipment		
16	*of which*: small IT and telecommunication equipment		

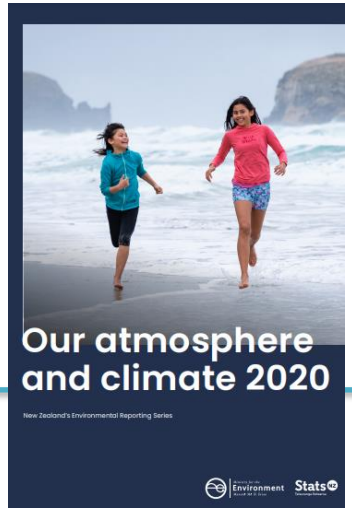
- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator **12.4.2**: **Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment;**
  and
- **12.5.1: National recycling rate, tons of material recycled**
- Custodian agencies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

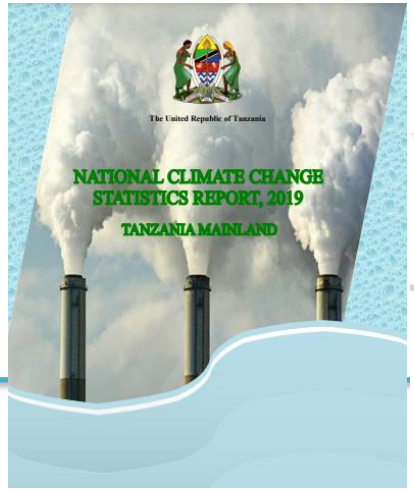
Use of Questionnaire data for System of Environmental Economic Accounting (SEEA) Central Framework and SEEA-Waste…

- … (SEEA CF) provides tools for describing **stocks** and **changes in stocks** of environmental assets (water, land, energy, timber, etc.), as well as supporting **environmental activities**
- Consistent annual time series are key as opening and closing stock and change over time are of interest.

Use of Questionnaire data to apply to the Global Set of Climate Change Statistics and Indicators, and in turn, to a national Compendium on Climate Change Statistics

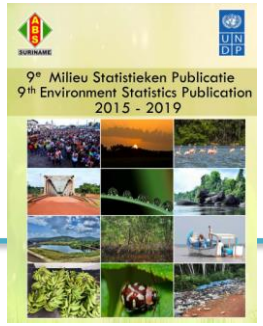
- Indicators such as those below would have underlying data reported in the Questionnaire:
  - **Municipal waste collected per capita**
  - **Proportion of population served by municipal waste collection**
  - **Proportion of municipal treated**
- Any effort undertaken in a country to compile a Compendium on Climate Change Statistics can have some data used to report to the Questionnaire. See collection of Compendia here: https://unstats.un.org/unsd/envstats/climatechange_reports.cshtml

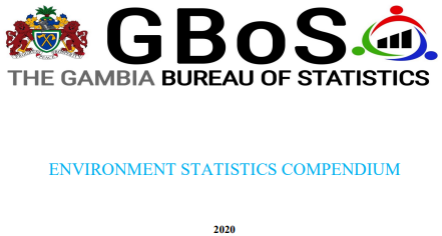


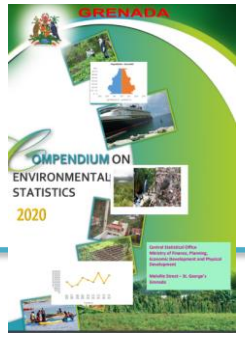


Use of Questionnaire data to apply to the Framework for the Development of Environment Statistics, and in turn, to a national Compendium on Environment Statistics

- Within the Framework for the Development of Environment Statistics, the Basic Set of Environment Statistics contained some 450+ statistics which countries can use as applicable when compiling a Compendium of Environment Statistics. Refer: https://unstats.un.org/unsd/environment/FDES/FDES-2015-supporting-tools/FDES.pdf
- **Sub-component 3.3: Generation and Management of Waste includes statistics such as: Waste generated by source; hazardous waste generated; municipal waste collected; municipal waste treated by treatment type**
- **Topic 5.1.2: Access to selected basic services includes statistics such as: population served by municipal waste collection.**
- Any effort undertaken in a country to compile a Compendium on Environment Statistics can have some data used to report to the Questionnaire. See collection of some 56 Environment Statistics Compendia here: https://unstats.un.org/unsd/envstats/fdescompendia.cshtml







•Thank you for your attention!

•For more information please contact

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website: https://unstats.un.org/unsd/envstats/