UNSD/UNEP Questionnaire on Environment Statistics – waste; and data gaps

Environment Statistics Section, Statistics Division, Department of Economic and Social Affairs

Prepared for: **Diálogo Centroamericano sobre Economía Circular**

Circularidad de recursos y gestión de residuos sólidos para acelerar los Objetivos de Desarrollo Sostenible
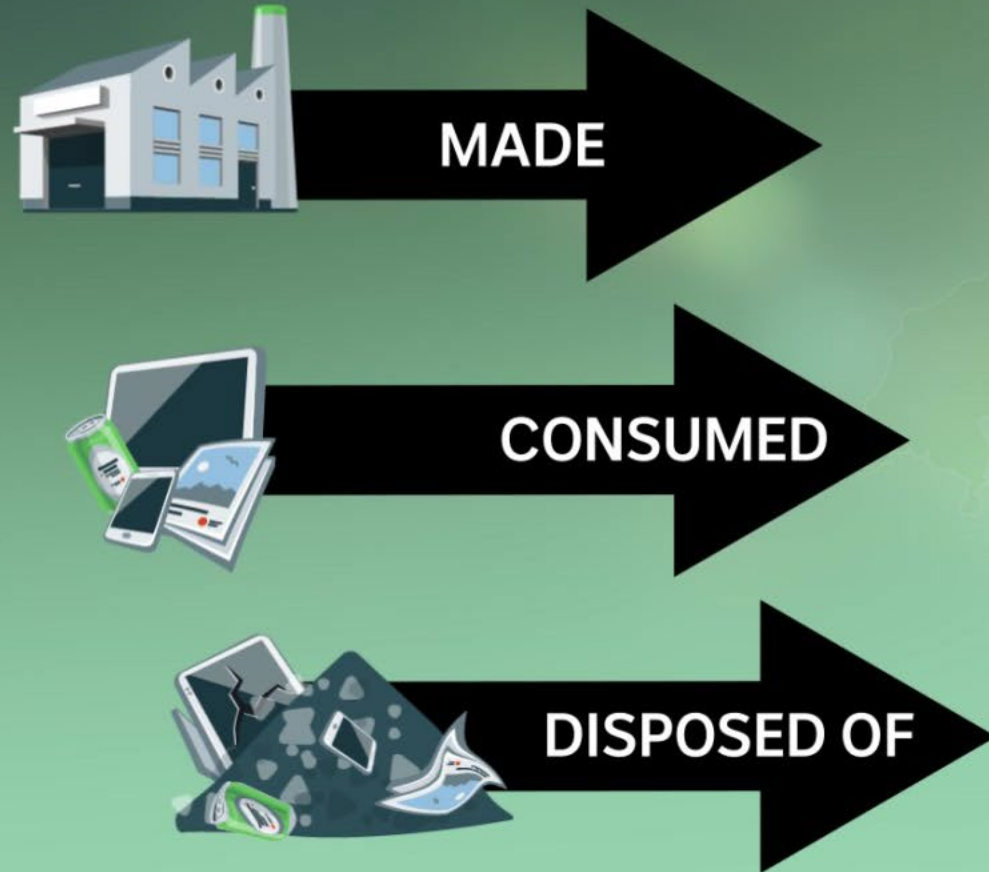
23-25 July, 2024

Outline

1. **Showcase of the UNSD/UNEP Questionnaire on Environment Statistics – waste section while highlighting data availability from Central American countries, and data gaps**

2. *burden once, use many.*" **principle: Waste data informing Sustainable Development Goal indicators; Climate Change Statistics, Environment Statistics; Waste Policy**

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section)

unstats.un.org/unsd/envstats/

Work Programme

The Environment Statistics Section of the United Nations Statistics Division (UNSD) is engaged in the development of methodology, data collection, capacity development, and coordination in the fields of environmental statistics and indicators.

≋ Methodology

Methodological work includes the elaboration of frameworks, concepts, methods, definitions, and data compilation guidelines to support the development and harmonization of national and international statistics on the environment.

- ❯ FDES 2013
- ❯ Basic Set of Environment Statistics
- ❯ Environment Statistics Self-Assessment Tool
- ❯ Expert Group on Environment Statistics
- ❯ Manual on the Basic Set of Environment Statistics
- ❯ International Recommendations for Water Statistics
- ❯ Environmental surveys
- ❯ Concepts and Methods of Environment Statistics
- ❯ Glossary

⛏ Capacity Development

Technical cooperation, training and capacity development is provided through regional and sub-regional projects, international training workshops, fellowship arrangements and assistance to countries. Recent projects covered the countries of the CARICOM, ESCWA, ECOWAS and EAC regions.

- ❯ COMESA
- ❯ EAC project
- ❯ ECOWAS project

▯ Data

Data collection is implemented through the biennial Questionnaire on Environment Statistics. Data collection started in 1999. UNSD environmental indicators derived from these data, as well as for the eight other themes, are now available.

- ❯ UNSD environmental indicators
- ❯ Country Snapshots
- ❯ Country Files (waste and water)
- ❯ Questionnaires (waste and water)

⛿ Coordination

Coordination of international activities in the field of environmental statistics and indicators is provided through the Intersecretariat Working Group on Environment Statistics (IWG-Env) with UNSD as the Secretariat.

- ❯ Intersecretariat Working Group on Environment Statistics
- ❯ Inventory of environmental data collection, reporting and dissemination
- ❯ Inventory of capacity development events and activities in the area

FDES 2013

- ❯ Basic Set of Environment Statistics
- ❯ FDES 2013 brochure
- ❯ Blueprint for Action
- ❯ Environment statistics compendia
- ❯ Environment Statistics Self-Assessment Tool
- ❯ Framework for the Development of Environment Statistics (FDES 2013)
- ❯ SDG indicators + Basic Set (FDES) matrix
- ❯ Manual on the Basic Set of Environment Statistics

👥 Expert Group on Environment Statistics

Quick links

- ❯ ENVSTATS newsletters
- ❯ Brochure on Environment Statistics
- ❯ Climate Change Statistics
- ❯ Frequently asked questions
- ❯ Reports to the Statistical Commission
- ❯ Environmental accounting
- ❯ National data sources
- ❯ International and regional data sources

Featured Database

UNdata
A world of information

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

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section)

unstats.un.org/unsd/envstats/country_files

Country files from the UNSD/UNEP data collection on environment statistics

In September 2022 UNSD launched its 10th round of data collection for environment statistics through the UNSD/UNEP Questionnaire 2022 on Environment Statistics. This website contains the most recent country replies to the water and waste sections of the UNSD/UNEP Questionnaire, be they the most recent collection cycle, or from one of the nine previous collection cycles. Each country's file has the corresponding collection cycle denoted in parentheses.

As part of its data validation process, UNSD may send questions to countries for clarification. When countries reply with corrections, the original country file may be modified. If a country does not reply to UNSD's questions, UNSD may omit numerical data or footnotes that appear unvalidate or lack clarity. Per demands from key institutional stakeholders and other users in general, this webpage is periodically updated as new Country Files are finalised by UNSD.

The main aim of this webpage is to share country data and to avoid multiple collections of the same data. International organizations that intend to collect these or similar data from countries are requested to coordinate with UNSD before launching their data collection activity.

For data for countries reporting to the Organisation for Economic Co-operation and Development (OECD), please refer to: https://stats.oecd.org/
For data for countries reporting to the Statistical Office of the European Union (Eurostat), please refer to:
https://ec.europa.eu/eurostat/data/database

* denotes recently added
Date of last update: 26 September 2023
Suggested citation: UNSD, Country Files from the UNSD/UNEP data collection on environment statistics (available at:
https://unstats.un.org/unsd/envstats/country_files).

Waste	Water
Algeria (2022)*	Algeria (2018)
Andorra (2022)*	Andorra (2020)
Angola (2013)	Angola (2013)
Anguilla (2010)	Anguilla (2010)

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

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section)

Countries' latest year of response…

Belize (2013)

Costa Rica (2010) but switched to Joint OECD/Eurostat Questionnaire in 2020

Dominican Republic (2022)

Ecuador (2022)

El Salvador (2022)

Guatemala (2018)

Honduras (2016)

Nicaragua (2010)

Panama (2020)

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Dominican Republic

País: Dominican Republic

Cuadro R3: Gestión de desechos municipales

Línea	Categoría	Unidad	2011		2012		2013		2014		2015		2016		2017		2018		2019		2020	2
15	Población **total** con servicio urbano de recogida de basura	%	81.0182	c	77.2	B	83.4167	c	83.8769	c	77.9	B	86.0712	c	90.8408	c	91.0111	c	92.0958	c		
16	Población **urbana** con servicio urbano de recogida de basura	%	91.7303	c			92.7627	c	92.2896	c	65.5	B	95.0486	c	97.0481	c	97.1398	c	97.3721	c		
17	Población **rural** con servicio urbano de recogida de basura	%	48.3472	c			51.9752	c	54.8346	c	12.4	B	57.7115	c	65.5848	c	66.3467	c	69.2988	c		

Notas de pie de página

Códi	Texto de la nota
B	La información aportada en el Porcentaje de la población de la ciudad con servicio de recogida de basura es un dato levantado a nivel de HOGAR, no de persona.
C	Hace referencia al servicio de recolección por el ayuntamiento
D	Censo Nacional de Población y Vivienda 2010. Nivel nacional.

Footnotes demonstrate collaboration between the National Statistical Office and City Council.

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Dominican Republic

País: Dominican Republic

Nombre Distrito Nacional (Capital de la República)

Cuadro R5: Gestión de desechos municipales – datos de Ciudad

Línea	Categoría	Unidad	2010	2011	2012	2013	2014	2015	Category
1	Población total de la ciudad	1000 hab.	968.532	976.548	984.49	992.73	1000.464	1007.997	Total population of the city
2	Cantidad total de residuos municipales generados	1000 t							Total amount of municipal waste generated
3	Porcentaje de la población de la ciudad con servicio de recogida de basura	%	92 c						served by municipal waste collection
4	Desechos urbanos recogidos de hogares	1000 t	747.116	695.779	715.139	688.038	705.134	704.041	Municipal waste collected from households
5	Desechos urbanos de otro origen	1000 t							Municipal waste collected from other origins
6	**Cantidad total de desechos municipales recogidos (=4+5)**	1000 t	747.116	695.779	715.139	688.038	705.134	704.041	**Total amount of municipal waste collected (=4+5)**
7	*Cantidades destinadas a:* Reciclaje	1000 t							Amounts going to: Recycling
8	Producción de abonos	1000 t							Composting
9	Incineración	1000 t							Incineration
10	*de la cual:* con recuperación de energía	1000 t							of which: with energy recovery
11	Disposición en vertederos	1000 t	747.116	695.779	715.139	688.038	705.134	704.041	Landfilling
12	*del cual:* disposición controlada	1000 t	747.116	695.779	715.139	688.038	705.134	704.041	of which: controlled landfilling
13	Otros, sírvase especificar en una nota de pie de página	1000 t							Other, please specify in the footnote

The Dominican Republic had data sets like this for several cities. Waste is being comprehensively accounted for, but the data suggest all is being landfilled.

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Ecuador

País: Ecuador

Cuadro R4: Composición de desechos municipales

Línea	Categoría	Unidad	2014		2015		2016		2017		2018		2019		2020	
1	Papel, cartón	%	9.48	A	10.2517	A	10.2661	A	10.1459	A	9.00607	A	9.00646	A	10.1747	A
2	Textiles	%			1.28467	A	1.79037	A	1.70924	A	2.17047	A	2.32088	A	2.30852	A
3	Plásticos	%	11.78	A	11.4367	A	10.6934	A	10.6138	A	11.4233	A	11.0927	A	10.9626	A
4	Vidrio	%	2.99	A	3.01185	A	2.91795	A	3.06694	A	2.96581	A	2.8808	A	3.11926	A
5	Metales	%	1.47	A	1.53331	A	1.27602	A	1.37479	A	1.373	A	1.18248	A	1.21824	A
6	Otro material inorgánico	%	13.16	A	13.8079	A	14.5895	A	15.7867	A	16.8944	A	16.6072	A	16.5299	A
7	Material orgánico	%	61.12	A	58.6739	A	58.4666	A	57.3027	A	56.1669	A	56.5947	A	55.6868	A
8	*del cual:* de alimentos y de jardín	%														
9	TOTAL	%	100		100		100		100		100		100		100	

Notas de pie de página

Código	Texto de la nota
A	Registro de Gestión Integral de Residuos Sólidos-GIRS 2014-2020.
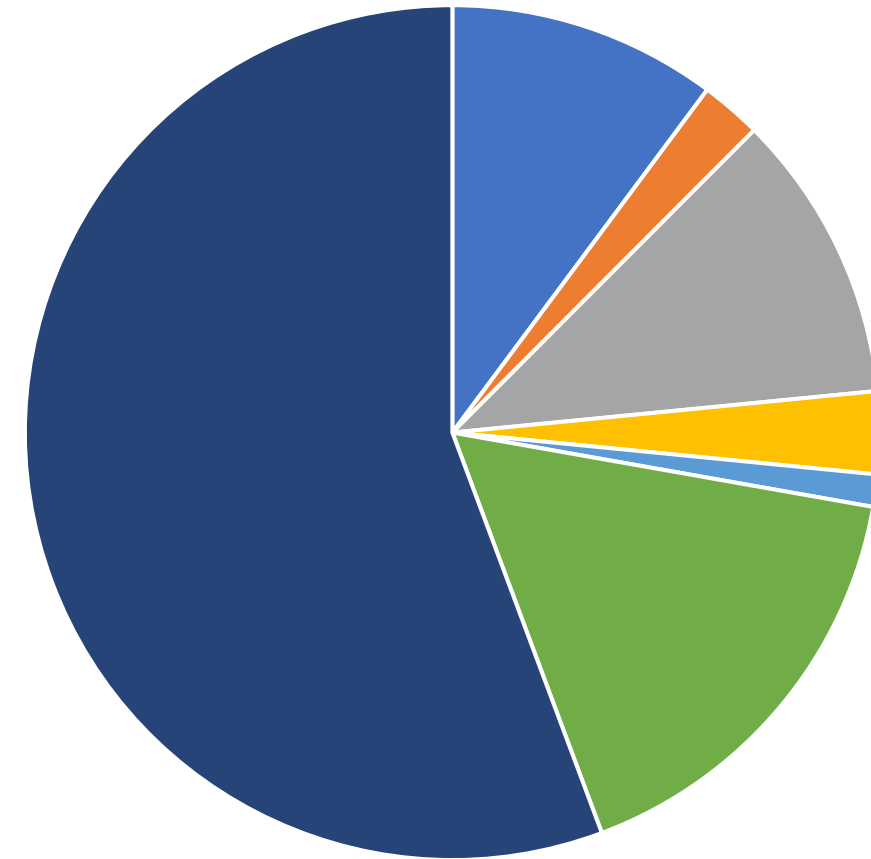
- Papel, cartón
- Textiles
- Plásticos
- Vidrio
- Metales
- Otro material inorgánico
- Material orgánico

Ecuador's 2020 data shown in a pie chart. Imagine the value of this data for designing circular economy policy.

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Ecuador

País: Ecuador

Nombre de ciudad: Quito

Cuadro R5: Gestión de desechos municipales – datos de Ciudad

Línea	Categoría	Unidad	2011		2012		2013		2014		2015		2016		2017		2018		2019		2020	
1	Población total de la ciudad	1000 hab.	1637.63	A	1660.25	A	1782.5	A	1769.32	A	1845.2	A	1875.44	A	1907.74	A						
2	Cantidad total de residuos municipales generados	1000 t							802.888	B	810.299	B	824.991	B	839.648	B	864.076	B	878.799	B	893.463	B
3	Porcentaje de la población de la ciudad con servicio de recogida de basura	%	96.26	A	96.08	A	98.2242	A	94.6929	A	97.1987	A	96.8779	A	95.8056	A						
4	Desechos urbanos recogidos de hogares	1000 t																				
5	Desechos urbanos de otro origen	1000 t																				
6	Cantidad total de desechos municipales recogidos (=4+5)	1000 t	620	C	651.89	C			688.025	B	674.827	B	684.01	B	701.994	B	803	B	733.172	B	803	B
7	Cantidades destinadas a: Reciclaje	1000 t			5.59	C																

Notas de pie de página

Código	Texto de la nota
A	Encuesta Nacional de Empleo, Desempleo y Subempleo – ENEMDU 2005-2017.
B	Registro de Gestión Integral de Residuos Sólidos-GIRS 2014-2020.
C	Encuesta Nacional de Empleo, Desempleo y Subempleo – ENEMDU 2005-2017. Censo de Información Ambiental Económica en GADs -2011-2012.

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Ecuador

País: Ecuador

Cuadro R6: Generación y recolección de desechos electrónicos

Table R6: E-Waste Generation and Collection

Línea	Categoría	Unidad	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017	
1	Total de residuos electrónicos generados	1000 t	7.341	A	10.774	A	14.462	A	21.446	A	29.89	A	28.39	A	26.884	A	39.937	A	56.459	A	73	A	76.50	A				
9	Total de residuos electrónicos recolectados	1000 t																	308.28	B	279.452	B	226.25	B	41.36	B	49.65	B
10	*Cantidades destinadas a:* Grandes aparatos	1000 t																										
11	Monitores, pantallas, y aparatos con pantallas de superficie superior a los 100 cm2	1000 t																										
12	Aparatos de intercambio de temperatura	1000 t																										
13	Pequeños residuos electrónicos	1000 t																										
14	*de la cual:* Lámparas	1000 t																										
15	*de la cual:* Pequeños aparatos	1000 t																										
16	*de la cual:* Equipos de informática y telecomunicaciones pequeños	1000 t																										

Notas de pie de página

Código	Texto de la nota
A	La información de generación fue tomada de la consultoría realizada para el desarrollo de la norma técnica para la gestión de residuos de aparatos eléctrico-electrónicos. Estos datos fueron tomados del estudio de las Naciones Unidas para la estimación de generación de residuos de aparatos elétrico-electrónicos en latinoamérica.
B	Los datos contenidos en estas celdas corresponden a la cantidad de celulares recuperados (unidades), a través de la aplicación del acuerdo ministerial 191. Los datos se muestran en unidades y actualmente es el único residuo electrónico del cual se tiene un registro anual. Se anexa el registro de declaraciones mensuales por parte de los productores y su respectivo sumatorio anual. el

- E-waste is such a rapidly emerging topic, and interest will grow and grow in our lifetimes.
- The footnote B is indicative of UNSD's general approach to data collection. If data may have a value, and are available, we tend to accept it and welcome footnote explanations.

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – El Salvador

País: El Salvador

Cuadro R3: Gestión de desechos municipales

Línea	Categoría	Unidad	2015	2016	2017	2018	2019	2020	2021	Category
1	Cantidad total de desechos municipales generados	1000 t	1137.24	1059.39	1141.13	1169.91	1238.99			Total amount of municipal waste generated
2	Desechos urbanos recogidos en los hogares	1000 t	1137.24	1059.39	1141.13	1169.91	1238.99			Municipal waste collected from households
3	Desechos urbanos recogidos de otro origen	1000 t								Municipal waste collected from other origins
4	**Cantidad total de desechos municipales recogidos (=2+3)**	1000 t	1137.24	1059.39	1141.13	1169.91	1238.99			**Total amount of municipal waste collected (=2+3)**
5	Desechos urbanos importados para su tratamiento/eliminación	1000 t								Municipal waste imported for treatment/disposal
6	Desechos urbanos exportados para su tratamiento/eliminación	1000 t								Municipal waste exported for treatment/disposal
7	**Desechos municipales gestionados en el país (=4+5–6)**	1000 t	1137.24	1059.39	1141.13	1169.91	1238.99			**Municipal waste managed in the country (=4+5–6)**
8	*Cantidades destinadas a:* Reciclaje	1000 t								Amounts going to: Recycling
9	Producción de abonos	1000 t								Composting
10	Incineración	1000 t								Incineration
11	*de la cual:* con recuperación de energía	1000 t								*of which:* with energy recovery
12	Disposición en vertederos	1000 t	1137.25	1059.39	1141.32	1169.92	1238.99	1127.20	1410.20	Landfilling
13	*del cual:* disposición controlada	1000 t								*of which:* controlled landfilling
14	Otros, sírvase especificar en una nota de pie de página	1000 t								Other, please specify in the footnote

- Aggregated to national level.
- For each year, about between 160 to 190 kilograms of municipal solid waste are generated per person, which is in line with expectation and validation checks.
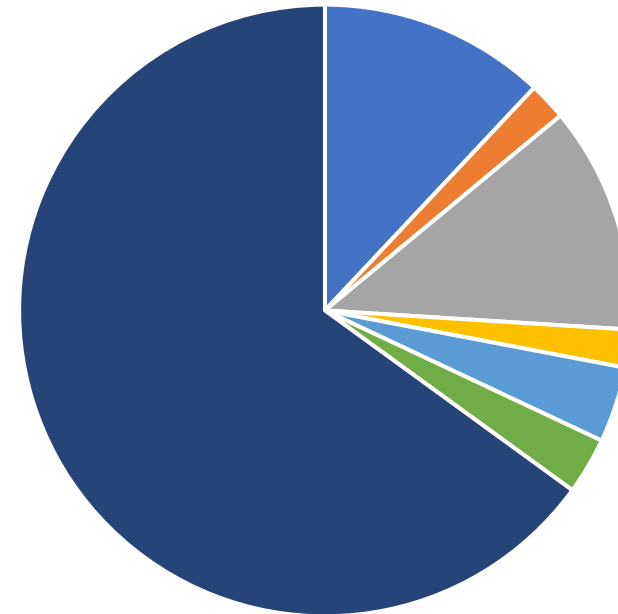
Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – El Salvador

País: El Salvador

Cuadro R4: Composición de desechos municipales

Línea	Categoría	Unidad	2014
1	Papel, cartón	%	12
2	Textiles	%	2
3	Plásticos	%	12
4	Vidrio	%	2
5	Metales	%	4
6	Otro material inorgánico	%	3
7	Material orgánico	%	65
8	*del cual:* de alimentos y de jardín	%	
9	TOTAL	%	100

- A comprehensive data set but a user may request for more recent data.
- This data set allows for comparison with, for instance, Ecuador.

- Papel, cartón
- Textiles
- Plásticos
- Vidrio
- Metales
- Otro material inorgánico
- Material orgánico

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Panama

País Panama							Institución de contacto:			

Cuadro R2: Gestión de desechos peligrosos

Línea	Categoría	Unidad	2005	2006	2007	2008	2009	2010	2011
1	Stocks de desechos peligrosos al principio del año	Toneladas							
2	Desechos peligrosos generados durante el año / Hazardous waste generated during the year	Toneladas	1547.11 B	1775.2 B C	1181.87 B	1682.91 B	2338.3 B	3037.1 B	3094.7 B
5	**Desechos peligrosos tratados o eliminados durante el año (=6+7+9+10)/ Hazardous waste treated during the year**	Toneladas	1547.11	1775.2	1181.87	1682.91	2338.3	3037.1	3094.7
6	*Cantidades destinadas a:* Reciclaje	Toneladas							
7	Incineración	Toneladas							
8	*De la cual*: con recuperación de energía	Toneladas							
9	Disposición en vertederos / Landfilled	Toneladas	1547.11 B	1775.2 B C	1181.87 B	1682.91 B	2338.3 B	3037.1 B	3094.7 B
10	Otros, sírvase especificar en una nota de pie de página	Toneladas							
11	Stocks de desechos peligrosos al final del año (=1+2+3-4-5)	Toneladas							

Notas de pie de página

Códi	Texto de la nota
B	Los datos sólo se refieren a la cantidad de desechos hospitalarios (Desechos clínicos resultantes de la atención médica prestada en hospitales, centros médicos y clínicas. Convenio de Basilea, Anexo I Y1) recolectados en los distritos de Panamá (capital) y San Miguelito. Estos desechos son depositados en el relleno sanitario de Cerro Patacón. Fuente: Dirección de Aseo Urbano y Domiciliario (1995-2006) Autoridad de Aseo Urbano y Domiciliario (2007-2012). Mediante solicitud de registros administrativos.
C	Dato estimado. Fuente: Unidad de Estadísticas Ambientales del Instituto Nacional de Estadística y Censo (Contraloría General de la República).Método: Regresión lineal con base en registros administrativos.

Medical waste provided and the relationship to the Basel Convention (transboundary movement of hazardous waste) is considered.

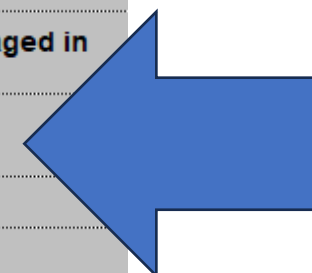# Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Guatemala

País: Guatemala   **Institución de contacto:**

Cuadro R3: Gestión de desechos municipales

| Línea	Categoría	Unidad	2001		2002		2003		2004		2005		2006		Category
1	Cantidad total de desechos municipales generados	1000 t													Total amount of municipal waste generated
2	Desechos urbanos recogidos en los hogares	1000 t	173	A	177	A	182	A	186	A	190	A	195	A	Municipal waste collected from households
3	Desechos urbanos recogidos de otro origen	1000 t													Municipal waste collected from other origins
4	**Cantidad total de desechos municipales recogidos (=2+3)**	1000 t													**Total amount of municipal waste collected (=2+3)**
5	Desechos urbanos importados para su tratamiento/eliminación	1000 t	1.9	A	1.5	A	1.7	A	3.3	A	2	A	1.6	A	Municipal waste imported for treatment/disposal
6	Desechos urbanos exportados para su tratamiento/eliminación	1000 t													Municipal waste exported for treatment/disposal
7	**Desechos municipales gestionados en el país (=4+5-6)**	1000 t													**Municipal waste managed in the country (=4+5-6)**
8	*Cantidades destinadas a:* Reciclaje	1000 t	12.6	A	11.9	A	10.8	A	13.8	A	13.2	A	15.4		Amounts going to: Recycling
9	Producción de abonos	1000 t	1.6	A	1.3	A	1	A	1.8	A	1.7	A	1.7	A	Composting
10	Incineración	1000 t													Incineration
11	*De la cual:* con recuperación de energía	1000 t													*of which:* with energy recovery
12	Disposición en vertederos	1000 t	158.8	A	163.8	A	170.2	A	170.4	A	175.1	A	177.9	A	Landfilling
13	*Del cual:* disposición controlada	1000 t													*of which:* controlled landfilling
14	Otros, sírvase especificar en una nota de pie de página	1000 t											17170		Other, please specify in the footnote

Data reported on recycling and composting.
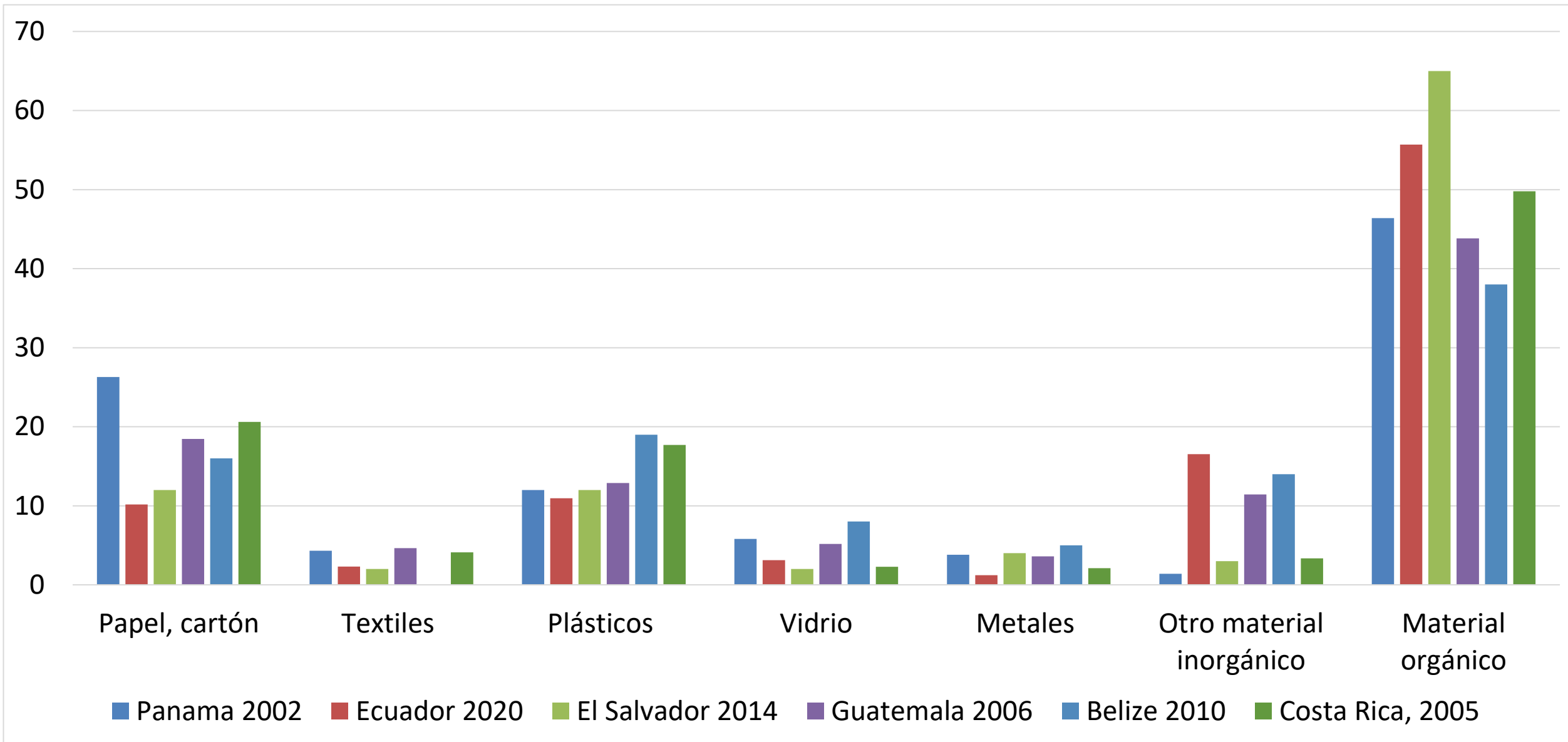
Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Belize

Cour	Belize				
City n	Belize City				

Table R5: Management of Municipal Waste — City Data

| Line	Category	Unit	2010	2011	2012
1	Total population of the city	1000 inh.	57.168	57.966	58.686
2	served by municipal waste collection	%	100	100	100
3	Municipal waste collected from households	1000 t			
4	Municipal waste collected from other origins	1000 t			
5	**Total amount of municipal waste collected (=3+4)**	1000 t	17.252 A	17.493 A	17.71 A
6	*Amounts going to:* Recycling	1000 t	0.332 A	0.337 A	0.342 A
7	Composting	1000 t			
8	Incineration	1000 t			
9	*of which:* with energy recovery	1000 t			
10	Landfilling	1000 t	16.92 A	17.156 A	17.368 A
11	*of which:* controlled landfilling	1000 t			
12	Other, please specify in the footnote	1000 t			
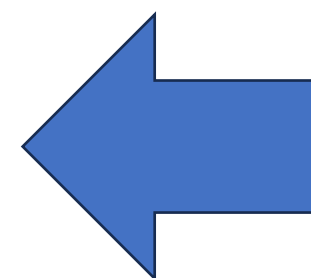
Data reported on recycling.

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Belize, Costa Rica, Ecuador, El Salvador, Guatemala, Panama

N.B. For Belize, "Textiles" are included in "Other inorganic materials" / "Otro material inorganico"

Thanks Bega Valley
Compost not landfill!

Fogo
NSW

Waste from weeks or months ago is now fertile soil, fertilizer
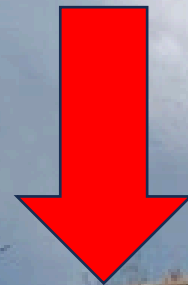
Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Honduras

País: Honduras   **Institución de contacto:**

Nombre de **Tegucigalpa**

Cuadro R5: Gestión de desechos municipales – datos de Ciudad

Línea	Categoría	Unidad	2004	2005	2006	2007	2008	2009	2010	Category
3	Desechos urbanos recogidos de hogares	1000 t	174.47	186.15	197.83	210.24	223.745	237.615	252.58	Municipal waste collected from households
4	Desechos urbanos de otro origen	1000 t	90.885	97.09	102.93	109.5	116.435	123.735	131.765	Municipal waste collected from other origins
5	Cantidad total de desechos municipales recogidos (=3+4)	1000 t	265.355	283.24	300.76	319.74	340.18	361.35	384.345	Total amount of municipal waste collected (=3+4)
	Analisis Sectarial de residuos solidos Honduras 2010 (OPS)									

Responses from UN member states to the UNSD/UNEP Questionnaire on Environment Statistics (waste section) – Honduras

País: Honduras

Cuadro R1: Generación de desechos por fuente

Línea	Categoría	Unidad	2007	2008	2009	2010	2011	2012	2013	Category
1	Agricultura, ganadería, silvicultura y pesca (CIIU 01-03)	1000 t								Agriculture, forestry and fishing (ISIC 01-03)
2	Minas y canteras (CIIU 05-09)	1000 t								Mining and quarrying (ISIC 05-09)
3	Industrias Manufactureras (CIIU 10-33)	1000 t								Manufacturing (ISIC 10-33)
4	Suministro de electricidad, gas, vapor y aire acondicionado (CIIU 35)	1000 t								Electricity, gas, steam and air conditioning supply (ISIC 35)
5	Construcción (CIIU 41-43)	1000 t								Construction (ISIC 41-43)
6	Otras actividades económicas excepto las de la división 38 de la CIIU	1000 t								Other economic activities excluding ISIC 38
7	Hogares	1000 t								Households
8	Total generación de desechos (=1+2+3+4+5+6+7)	1000 t	1308.16	1353.79	1408.9	1459.27	1489.93	1544.68	1680.1	Total waste generation (=1+2+3+4+5+6+7)
	2016 - Linea Base Nacional de la Gestion de los Residuos en Honduras CNP+LH.									Validation failed or values not within expected rang
	Analisis Sectarial de residuos solidos Honduras 2010 (OPS).									

Observations on the country data provided over the past 10-15 years…

There is a strong case for pursuing a circular economy approach to waste management because:
i.   We commonly observe cases where 100% or nearly 100% of waste is being landfilled;
ii.   We also see from several countries in the region that well over 50% of the composition of waste is organic.
iii.   Other materials we see (e.g. paper, plastic, glass) are clearly recyclable.
iv.   Data gaps remain. If they can be filled in, we can better understand the issue and the value of a circular economy approach.

Use of UNSD/UNEP Questionnaire data to inform policy interests such as resource circularity

- Policy analysis, research papers by those analysing waste, flows of waste, material flows, etc. frequently reference the UNSD/UNEP Questionnaire and value the country-owned data within it.
- This is credit to the countries providing data and their collaboration with the United Nations.
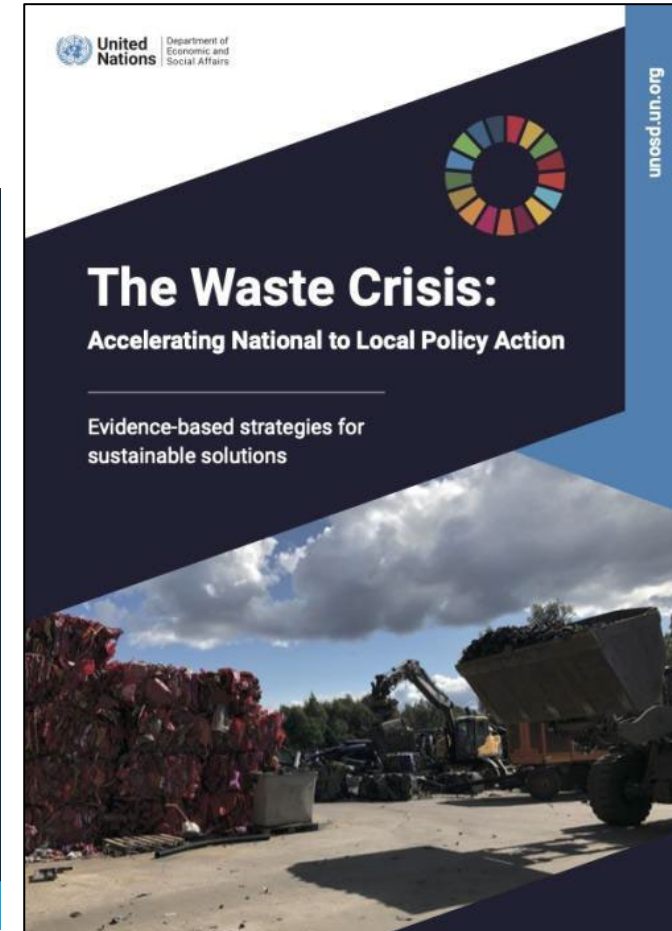
World Bank, 2018

Published by UNEP, February 2024.   Published by UNITAR, 2024.   Published by UNEP, 2024.   Published by UNOSD, DESA, 2024.
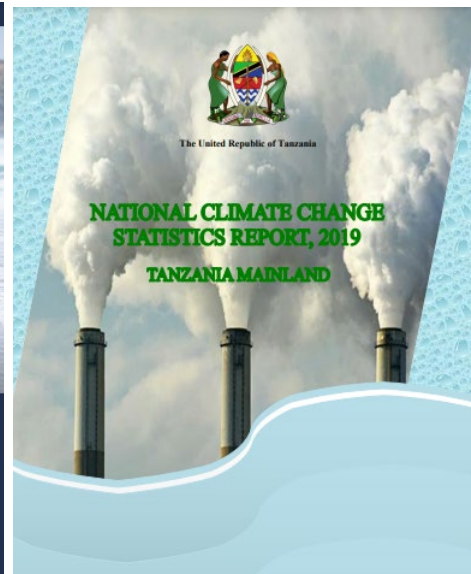
Use of Questionnaire data to apply to the Global Set of Climate Change Statistics and Indicators, and in turn, to a national Compendium on Climate Change Statistics

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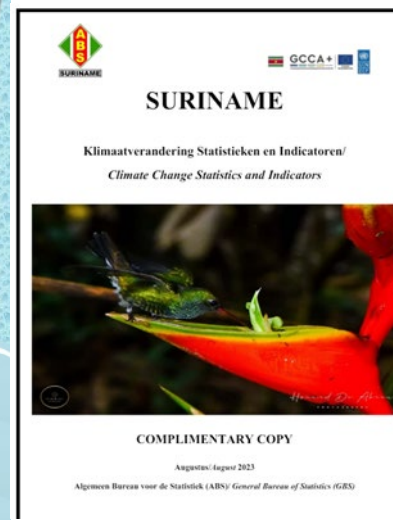
Use of Questionnaire data to apply to the Framework for the Development of Environment Statistics, and in turn, to a national Compendium on Environment Statistics

- 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

FRAMEWORK FOR THE DEVELOPMENT OF ENVIRONMENT STATISTICS (FDES 2013)
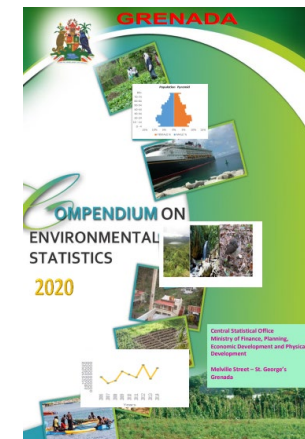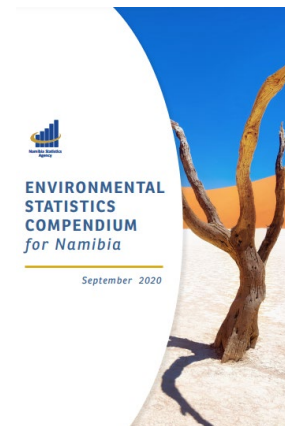
Country:

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

- 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 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	**Hazardous waste treated or disposed of during the year (=6+7+9+10)**	tonnes	
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		
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)**	1000 t	
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]

Section: WASTE

Country:

Table R4: Composition of Municipal Waste   Cuadro R4: Composición de desechos municipales

Line	Category	Unit	Categoría	2016	2017	2018	2019	2020	2021
1	Paper, paperboard	%	Papel, cartón						
2	Textiles	%	Textiles						
3	Plastics	%	Plásticos						
4	Glass	%	Vidrio						
5	Metals	%	Metales						
6	Other inorganic material	%	Otro material inorgánico						
7	Organic material	%	Material orgánico						
8	*of which* : food waste and garden waste	%	*del cual:* de alimentos y de jardín						
9	TOTAL	%	100	100	100	100	100	100	100	100

- 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.

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		
5	Municipal waste collected from other origins		
6	**Total amount of municipal waste collected (=4+5)**		
7	*Amounts going to:* **Recycling**		
8	**Composting**	1000 t	
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 R6: E-Waste Generation and Collection

Line	Category	Unit	2021
1	**Total E-waste Generated**		
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**	1000 t	
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]

Thank You!

UNSD Environment Statistics Section
Website: unstats.un.org/unsd/envstats
Email: envstats@un.org