Session 1.1

International Requirements for Environment Statistics

Taller Nacional de Estadísticas Ambientales y de Cambio Climático en Perú

Lima, 13-15 Desembre 2022

United Nations Statistics Division

International Needs for Environment Statistics
FDES Alignment

Reporting on Multilateral Environmental Agreements

International data collection

Starting point for countries to develop national collections

Reporting by countries to SDGs and Multilateral Environmental Agreements

Examples of international Data Collection

❖ UNSD
- ▪ Energy statistics, industrial statistics, trade statistics, national accounts, demographic statistics, environment statistics (water and waste)

❖ FAO
- ▪ AQUASTAT (water)
- ▪ FAOSTAT (agriculture, nutrition, fisheries, forestry, food aid, land use and population)
- ▪ FISHSTAT (fisheries)
- ▪ FORIS (forests)
- ▪ GLIPHA (Global Livestock Production and Health Atlas)

❖ UNEP
- ▪ World Conservation Monitoring Centre (protected areas)
- ▪ GEMS-Water (water quality)

UNSD Environment Statistics Data Collection

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

Section: WASTE

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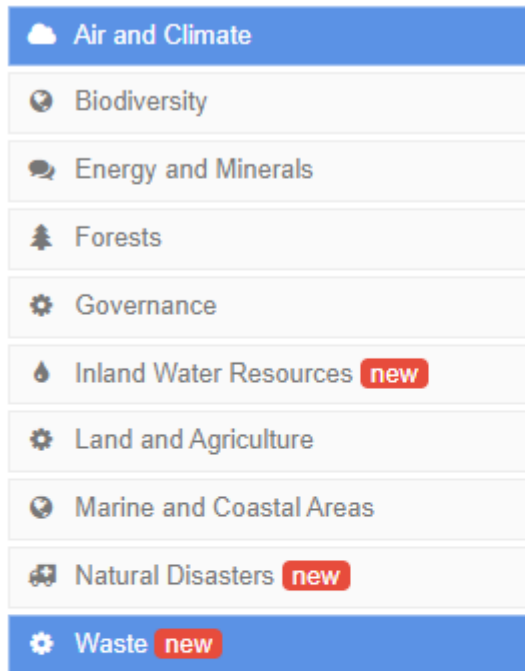## QUESTIONNAIRE 2022 ON ENVIRONMENT STATISTICS

Section: WATER

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❖UNSD/UNEP Questionnaire on Environment Statistics

United Nations Statistics Division

Dissemination: UNSD Environmental Indicators

Air and Climate

Biodiversity

Energy and Minerals

Forests

Governance

Inland Water Resources **new**

Land and Agriculture

Marine and Coastal Areas

Natural Disasters **new**

Waste new

Waste

- Composition of municipal waste (latest year) `XLS`
- Hazardous waste generated `XLS`
- Hazardous waste generated per capita `XLS`
- Hazardous waste incinerated `XLS`
- Hazardous waste landfilled `XLS`
- Hazardous waste recycled `XLS`
- Hazardous waste treated or disposed `XLS`
- Municipal waste collected `XLS`
- Municipal waste collection (latest year) `XLS`
- Municipal waste collection at city level in selected cities (latest year) `XLS`
- Municipal waste treatment (latest year) `XLS`
- Municipal waste treatment at city level in selected cities (latest year) `XLS`
- Percentage of hazardous waste treated or disposed relative to hazardous waste generated `XLS`
- Percentage of municipal waste collected which is recycled `XLS`
- Total ewaste collected `XLS`
- Total ewaste generated `XLS`
- Total population served by municipal waste collection `XLS`
- Links to other international data sources

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

Key Data Users

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

The Sustainable Development Goals

All but goals 10, 16 and 17, have corresponding FDES statistics:
https://unstats.un.org/unsd/envstats/fdes/SDGsInd_BasicSetMatrix.pdf

Example

SDG Indicators	Location in the FDES: Component Sub-Component and Topic	Statistics used in the SDG Indicator corresponding to BSES (SDG Indicator can be compiled either fully or partially from BSES statistics)

15.3.1 Proportion of land that is degraded over total land area (Tier II)	Component 1: Environmental Conditions and Quality, Sub-component 1.1: Physical Conditions, Topic 1.1.4: Soil characteristics	1.1.4.a. Soil characterization
		    1.1.4.a.1. Area by soil types
		1.1.4.b. Soil degradation
		    1.1.4.b.1. Area affected by soil erosion
		    1.1.4.b.2. Area affected by desertification
		    1.1.4.b.3. Area affected by salinization
		    1.1.4.b.4. Area affected by waterlogging
		    1.1.4.b.5. Area affected by acidification
		    1.1.4.b.6. Area affected by compaction
		1.1.4.c. Nutrient content of soil, measured in levels of:
		    1.1.4.c.1. Nitrogen (N)
		    1.1.4.c.2. Phosphorous (P)
		    1.1.4.c.3. Calcium (Ca)
		    1.1.4.c.4. Magnesium (Mg)
		    1.1.4.c.5. Potassium (K)
		    1.1.4.c.6. Zinc (Zn)
		    1.1.4.c.7. Other

Multilateral Environmental Agreements

1. **Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal**
2. **Centre for Research on the Epidemiology of Disasters**
3. **Convention on Biological Diversity (CBD)**
4. **Convention on the Conservation of Migratory Species of Wild Animals (CMS)**
5. **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**
6. **The Convention on Wetlands of International Importance (The Ramsar Convention)**
7. **Food and Agriculture Organization of the United Nations (FAO); FAOSTAT**
8. **Food and Agriculture Organization of the United Nations (FAO); FISHSTAT**
9. **Food and Agriculture Organization of the United Nations (FAO); FRA Global Forest Resource Assessment**
10. **Food and Agriculture Organization of the United Nations (FAO); AQUASTAT**
11. **International Union for Conservation of Nature (IUCN)**
12. **Stockholm Convention on Persistent Organic Pollutants (POPs)**
13. **United Nations Children's Fund (UNICEF)**
14. **United Nations Convention to Combat Desertification (UNCCD)**
15. **United Nations Environment Programme (UNEP); Global Environment Monitoring System for Water**
16. **United Nations Environment Programme (UNEP); Ozone Secretariat**
17. **United Nations Environment Programme (UNEP); World Conservation Monitoring Centre (WCMC)**
18. **United Nations Framework Convention on Climate Change (UNFCCC)**
19. **UN-Habitat**
20. **United Nations Office for Disaster Risk Reduction (UNDRR)**
21. **United Nations Statistics Division (UNSD); Waste and water statistics**
22. **United Nations Statistics Division (UNSD); Energy statistics**
23. **World Bank**
24. **World Health Organization (WHO)**
25. **World Heritage Convention**
26. **UNESCO Man and Biosphere Programme (MAB)**

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Multilateral Environmental Agreements

[A] PAÍS	ACUERDOS AMBIENTALES INTERNACIONALES	Viena [h]	Diversidad biológica [i]	Cambio Climático [d]	Desertificación [c]	Kyoto [k]	Rotterdam [g]	Cartagena [j]	Estocolmo [e]	París [a]	Minamata [f]	Escazú [b]
	FIRMA, PARTE, ENTRADA EN VIGOR	Año de firma	Año de firma	Año de firma	Año de firma	Año de firma	Año de firma	Año de firma	Año de firma	Año de firma	Año de firma	Año de firma
Perú [h]		1985	1992	1992	1994	1998	1998	2000	2001	2016	2013	2018

Fuentes

A) CEPAL - Comisión Económica para América Latina y el Caribe: Sobre la base de información oficial de los países

Notas

a) Acuerdo de París en el marco de la Convención Marco de de las Naciones Unidas sobre el Cambio Climático (UNFCCC) (2015)

b) Acuerdo Regional (Escazú) sobre el Acceso a la Información, la Participación Pública y el Acceso a la Justicia en Asuntos Ambientales en América Latina y el Caribe (2018)

c) Convención de las Naciones Unidas de lucha contra la Desertificación en los Países Afectados por Sequía Grave o Desertificación, en particular en África (1994).

d) Convención Marco de las Naciones Unidas sobre el Cambio Climático (1992).

e) Convenio de Estocolmo sobre Contaminantes Orgánicos Persistentes (2001).

f) Convenio de Minamata sobre el Mercurio (2013)

g) Convenio de Rotterdam sobre el Procedimiento de Consentimiento Fundamentado Previo Aplicable a Ciertos Plaguicidas y Productos Químicos Peligrosos Objeto de Comercio Internacional (1998).

h) Convenio de Viena para la Protección de la Capa de Ozono (1985).

i) Convenio sobre la Diversidad Biológica (1992).

j) Protocolo de Cartagena sobre Seguridad de la Biotecnología (2000).

k) Protocolo de Kyoto de la Convención Marco de las Naciones Unidas sobre el Cambio Climático (1997).

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Institution	United Nations Statistics Division (UNSD); Energy statistics				
Website	https://unstats.un.org/home/				
Description of data collection	Topics include: production, trade and final consumption of primary and secondary energy products from renewable and non-renewable energy sources. Data collection instrument at: http://unstats.un.org/unsd/energy/quest.htm				
Periodicity of data collection	Annual	**Geographical coverage**	Worldwide, including 229 countries and areas. Data for OECD and EU countries collected through the IEA questionnaire.	**Temporal coverage**	6 years, with possibility of historic revisions.
SDG coverage	7.2.1 Renewable energy share in the total final energy consumption (Tier I) 7.3.1 Energy intensity measured in terms of primary energy and GDP (Tier I)				

Institution	United Nations Statistics Division (UNSD); Waste and water statistics				
Website	https://unstats.un.org/home/				
Description of data collection	UNSD/UNEP Questionnaire on Environment Statistics. Waste: the share of economic activities and households in the generation of waste, the generation and treatment of hazardous waste, and the generation, collection, treatment and composition of municipal waste. Water: renewable freshwater resources, freshwater abstraction and use, the water supply industry (ISIC 36), wastewater generation and treatment, and population connected to wastewater treatment. Data collection instrument at: http://unstats.un.org/unsd/environment/questionnaire.htm				
Periodicity of data collection	Biennial	**Geographical coverage**	For waste and water: Global (excluding respondents of Joint OECD/EUROSTAT Questionnaire on the State of the Environment) For energy: Global (excluding OECD member states)	**Temporal coverage**	Varies (e.g. water and waste from 1990 to 2017)
SDG coverage	6.3.1 Proportion of wastewater safely treated (Tier II) 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) 12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment (Tier III) 12.5.1 National recycling rate, tons of material recycled (Tier III)				

Data quality issues
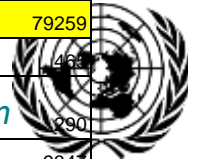
FORESTS FRA

15.1.1 Forest area (thousands of hectares)

	1990	2000	2005	2010	2015	2020
		75,298		74,050	73,195	72,330

Land cover, 1000 Ha (Climate Change Initiative)

	1990	2000	2005	2010	2015	2020
Artificial surfaces (including urban and associated areas) [6970]		149	155	167	186	221
Grassland [6983]		16573	16690	16706	16671	16509
Herbaceous crops [6971]		2515	2519	2408	2408	2435
Inland water bodies [6981]		1375	1502	1509	1519	1521
Mangroves [6975]		4	4	5	5	5
Shrub-covered areas [6976]		10081	10063	10037	10045	9899
Shrubs and/or herbaceous vegetation, aquatic or regularly flooded [6977]		269	382	381	382	393
Sparsely natural vegetated areas [6978]		6214	5907	5921	5962	6311
Terrestrial barren land [6979]		9431	9749	9672	9625	9194
Tree-covered areas [6974]		82421	81934	82002	81993	82310
Woody crops [6972]		546	674	770	784	781

Land cover, 1000 Ha (MODIS land cover type)

	1990	2000	2005	2010	2015	2020
Artificial surfaces (including urban and associated areas)[6970]			460	462	464	469
Grassland [6983]			32303	32206	32187	32761
Herbaceous crops [6971]			970	1105	1159	1175
Inland water bodies [6981]			1560	1546	1548	1545
Shrub-covered areas [6976]			3622	3591	3790	3964
Tree-covered areas [6974]			78963	79405	79157	79259
Mangroves [6975]			429	439	465	468
Shrubs and/or herbaceous vegetation, aquatic or regularly flooded [6977]			254	254	297	290
Terrestrial barren land [6979]			10319	10224	9941	9347

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Data quality issues

Possible reasons for discrepancies:
- Different definitions
- Classifications
- Timing of data-collection
- Several focal points/institutions producing same data (for example land use)
- Methods of interpretation/mapping

Thank you for your attention!

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