Environment Statistics Self-Assessment Tool (ESSAT)

Part II: Statistics Level Assessment

in support of the Framework for the Development of Environment Statistics
(FDES 2013)

Prepared by the United Nations Statistics Division
28 August 2018
Version 1.1

Introduction

Part II of the ESSAT is based on the Basic Set of Environment Statistics of the FDES 2013. It serves as a tool to assess the national relevance, importance, availability and sources of the individual statistics contained in the Basic Set of Environment Statistics. It also helps to identify relevant quantitative and qualitative data gaps and develop a plan for filling in the gaps and strengthening environment statistics according to national priorities, needs and available resources. As indicated in the introduction to the ESSAT, Part II should be completed by the lead institution for environment statistics (National Statistical Office, Ministry of Environment or equivalent), in close collaboration with the relevant stakeholders that play an active role in the production of environment statistics, as part of a multi-stakeholder consultation.

Objectives and Use of Part II

The overarching objective of Part II of the ESSAT is to improve the capacity of countries to assess where they stand with respect to the development of environment statistics. It is a means for countries to assess their current position and set a basis from which they may construct and/or strengthen their environment statistics programmes within the national statistical systems, in collaboration with relevant partner agencies. Specific objectives of the ESSAT Part II include:

- Identifying and prioritizing those statistics that are of policy relevance in the country;
- Assessing data availability;
- Identifying sources of data and institutional partners;
- Identifying data gaps.

The Basic Set of Environment Statistics

The structure of the Basic Set of Environment Statistics follows the hierarchical structure of the FDES (in descending order: component, sub-component, statistical topic, statistic). The Basic Set of Environment Statistics includes three tiers of statistics. Tier 1 (the Core Set of Environment Statistics, in **bold font**) is the basic minimum set of environment statistics which all countries, at any stage of development, are recommended to consider collecting. Tier 2 (regular font) includes environment statistics that countries are highly encouraged to have if the situations apply. Tier 3 (*italic font*) includes environment statistics which, while still important and widely applicable, require a more significant investment in time, resources or technological development.

The table below displays the number of statistics per component.

Number of Statistics	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6	Total
Tier 1	32	30	19	4	12	3	100
Tier 2	58	51	34	11	22	24	200
Tier 3	51	43	5	16	20	23	158
Total	141	124	58	31	54	50	458

Instructions

An index is available with hyperlinks within Excel which can be used to go directly to the FDES 2013 component, sub-component or topic of interest. There are two methods of filling in the tool electronically. The first method is to fill individual cells directly. Drop-down menus can be used as appropriate. For the second method, Macros must be enabled in Microsoft Excel. (To enable Macros in Microsoft Excel 2010, go: File>Options>Trust Center>Trust Center Settings>Macro Settings>Check Enable all macros). Then one only needs to click on the cells containing the names of statistics within the component spreadsheets, and pop-ups will appear to help fill in the questionnaire. Both methods can be used at the same time. For each individual statistic of the Basic Set of Environment Statistics within the ESSAT the following should be addressed according to the specified columns:

Category of Measurement

This shows the type of dimension (e.g., volume, mass, height) corresponding to each statistic. This column has been pre-filled according to the categories contained in the Basic Set in the FDES 2013. If necessary, the category can be modified.

Potential Aggregations and Scales

Possible aggregations/disaggregations should be included here as presented below:

1. By relevant classifications (e.g., ISIC) or groupings
2. Spatial Aggregations (administrative [e.g., national/sub-national] and ecological [ecosystems, biomes, basins])
3. Temporal Aggregations (e.g., annual, biannual, monthly)

This column has been pre-filled according to potential aggregrations/scales contained in the Basic Set in the FDES 2013. If necessary, the information can be modified.

Relevance of Statistic at the National Level

In this context, relevance refers to the importance of the statistic for national environmental concerns or policy considerations. This column contains a drop-down menu to be used to indicate the relevance of each environment statistic. The values in this column which should be chosen are:

- Low (L)
- Medium (M)
- High (H)
- Not Relevant (NR)
- Not Applicable (NAp)

If a statistic is Not Applicable, proceed to the next statistic. For definitions of Not Relevant and Not Applicable, see below.

Not relevant: The environmental issue is so insignificant as to not be relevant to the country. For example, a country with an abundance of water resources and a relatively small and stable population, may not regard water scarcity as a relevant issue.

Not applicable: The environmental issue is not applicable to the country. For example, a land-locked country may regard marine water quality or sea level rise as not applicable.

Priority for National Data Collection

This column contains a drop-down menu to be used to indicate the priority of each environment statistic for national data collection. The values in this column which should be chosen are the following priority for national data collection:

- Low (L)
- Medium (M)
- High (H)
- Not a Priority (NP)

Availability of Statistic at the National Level

An indication of whether the statistic is available should be provided using the drop-down menu and inserting an X as appropriate. There are three options:

- Identical (I) - available according to the concepts, definitions, classifications and methodology recommended by the FDES 2013;
- Similar (S) - available but not according to the concepts, definitions, classifications and methodology recommended by the FDES 2013;
- Not Available (NAv) - the statistic is not available nationally. In this case, go to the last question (Main Reasons why Statistic is not Available).

Primary Institution(s) Responsible for Collecting Statistic

The name of the institution responsible for collecting, processing and storing the data from the reporting units should be included in this column (e.g., meteorological institution for weather data).

Type of Data Source

One of the following options should be chosen:

- (SS) Statistical surveys (e.g., censuses or sample surveys of population, housing, agriculture, enterprises, households, employment, and different aspects of environment management);
- (AR) Administrative records of government and non-government agencies in charge of natural resources as well as other ministries and authorities;
- (RS) Remote sensing (e.g., satellite imaging of land use, water bodies or forest cover);
- (MS) Monitoring systems (e.g., field-monitoring stations for water quality, air pollution or climate);
- (SR) Scientific research;
- (SP) Special projects undertaken to fulfil domestic or international demand.

Requirements or User Requests for Collection/Reporting on this Statistic

The level of requirement for collection/reporting on this statistic should be identified using the drop-down menu and inserting an X as appropriate.

- Sub-national
- National
- Regional (pertaining to a large geographic region, e.g., European Union, Caribbean Community, East African Community)
- International

Periodicity

This indicates the frequency of the collection of the statistic. One of the following options should be chosen:

- Annual (A)
- Monthly (M)
- Daily (D)
- Hourly (H)
- Other (specify)

Earliest Year Available

The earliest year for which the statistic is available should be indicated.

Latest Year Available

The latest year for which the statistic is available should be indicated.

Format of Statistic

This indicates the format in which the statistic is available. One of the following options should be chosen:

- Publication or report (P)
- Excel files (E)
- Database (D)
- Website (W)
- Individual records not readily useable (I)

Unit of Measurement

An actual measurement unit of the statistic (e.g., m^3, tonne, mm) should be indicated.

Main Reasons why Statistic is not Available

An indication of the main reasons why the statistic is not available should be provided using the drop-down menu and inserting an X as appropriate.

- Resource constraints

Both financial and staff resource constraints within the environment statistics units and/or in partner agencies involved in the production of each statistic.

- Methodological/Technical difficulty in data collection

Difficulty in collecting the data for methodological reasons (i.e., lack of methodologies including concepts, methods or classifications) or technical reasons (i.e., difficulties in the aggregation methods from voluminous primary data to environment statistics series; technical problems interpreting remote sensing, etc.).

- Insufficient quality

Data are of insufficient quality if they do not meet generally accepted statistical standards. Primarily, this may relate to any or all of the following conditions:

- Insufficient or non-existent metadata – does not allow for the assessment of the quality and comparability of the data set(s);
- Accuracy – the statistics do not correctly describe the phenomena they were designed to measure;
- Timeliness – delay between the reference point and the date the information becomes available is too lengthy to allow the data to be useful;
- Coherence – data are not collected using standards or internationally accepted concepts and classifications; or data are not collected using the relevant and same target phenomenon over time and/or space; or the data are not internally consistent.

- Inaccessibility

Data are considered inaccessible if they cannot be obtained with relative ease from the responsible agency or primary source or data cannot be provided in an appropriate format to allow them to be used.

- Lack of institutional set-up/coordination

Institutional or policy barriers could present difficulties in accessing and utilizing relevant primary data sets. This box should be checked if the collaboration among the necessary institutions is not sufficient to grant an adequate sharing of data sets and resulting environment statistics, and/or if there is insufficient institutionalization of environment statistics programmes/units. Both of these conditions would present obstacles to the systematic production of environment statistics.

- Other difficulties in data collection

Difficulties other than those described under the previous headings should be included.

Environment Statistics Self-Assessment Tool Part II

Identification Details

1. Name: _____
2. Contact (email address): _____
3. Name of the organization: _____
4. Start date (dd/mm/yyyy): _____
5. Completion date (dd/mm/yyyy): _____
6. Country: _____

Names and information of collaborating partners:

Name	Position, Institution	Telephone and email

Index of FDES 2013 Components, Sub-components and Topics

Component 3: Residuals
Sub-component 3.1: Emissions to Air
Topic 3.1.1: Emissions of greenhouse gases
Topic 3.1.2: Consumption of ozone depleting substances
Topic 3.1.3: Emissions of other substances
Sub-component 3.2: Generation and Management of Wastewater
Topic 3.2.1: Generation and pollutant content of wastewater
Topic 3.2.2: Collection and treatment of wastewater
Topic 3.2.3: Discharge of wastewater to the environment
Sub-component 3.3: Generation and Management of Waste
Topic 3.3.1: Generation of waste
Topic 3.3.2: Management of waste
Sub-component 3.4: Release of Chemical Substances
Topic 3.4.1: Release of chemical substances
Component 4: Extreme Events and Disasters
Sub-component 4.1: Natural Extreme Events and Disasters
Topic 4.1.1: Occurrence of natural extreme events and disasters
Topic 4.1.2: Impact of natural extreme events and disasters
Sub-component 4.2: Technological Disasters
Topic 4.2.1: Occurrence of technological disasters
Topic 4.2.2: Impact of technological disasters
Component 5: Human Settlements and Environmental Health
Sub-component 5.1: Human Settlements
Topic 5.1.1: Urban and rural population
Topic 5.1.2: Access to selected basic services
Topic 5.1.3: Housing conditions
Topic 5.1.4: Exposure to ambient pollution
Topic 5.1.5: Environmental concerns specific to urban settlements
Sub-component 5.2: Environmental Health
Topic 5.2.1: Airborne diseases and conditions
Topic 5.2.2: Water-related diseases and conditions
Topic 5.2.3: Vector-borne diseases
Topic 5.2.4: Health problems associated with excessive UV radiation exposure
Topic 5.2.5: Toxic substance- and nuclear radiation-related diseases and conditions

Component 6: Environmental Protection, Management and Engagement
Sub-component 6.1: Environmental Protection and Resource Management Expenditure
Topic 6.1.1: Government environmental protection and resource management expenditure
Topic 6.1.2: Corporate, non-profit institution and household environmental protection and resource management expenditure
Sub-component 6.2: Environmental Governance and Regulation
Topic 6.2.1: Institutional strength
Topic 6.2.2: Environmental regulation and instruments
Topic 6.2.3: Participation in MEAs and environmental conventions
Sub-component 6.3: Extreme Event Preparedness and Disaster Management
Topic 6.3.1: Preparedness for natural extreme events and disasters
Topic 6.3.2: Preparedness for technological disasters
Sub-component 6.4: Environmental Information and Awareness
Topic 6.4.1: Environmental information
Topic 6.4.2: Environmental education
Topic 6.4.3: Environmental perception and awareness
Topic 6.4.4: Environmental engagement

Component 1: Environmental Conditions and Quality

	Statistics and Related Information **Bold Text - Core Set/Tier 1** Regular Text - Tier 2 *Italicized Text - Tier 3*	**Category of Measurement**	**Potential Aggregations and Scales**	**Relevance of Statistic at the National Level (High /Medium /Low/Not Relevant/Not Applicable)**	**Priority for National Data Collection (High /Medium /Low/Not a Priority)**	**Availability of Statistic at the National Level (Identical/Similar/Not Available)**	**Primary Institution(s) Responsible for Collecting Statistic** Check all that apply			**Type of Data Source**	**Requirements or User Requests for Collection/ Reporting on this Statistic** Check all that apply				**Periodicity (Annual/Monthly/Daily/Hourly/Other [specify])**	**Earliest Year Available**	**Latest Year Available**	**Format of Statistic (Publication/Excel/Database/Website/Individual records)**	**Unit of Measurement**	**Main Reasons why Statistic is not Available** Check all that apply					
							NSO	Ministry of Environment or equivalent institution	Other (specify):		Sub-national	National	Regional	International						Resource constraints	Methodological/Technical difficulty in data collection	Insufficient quality	Inaccessibility	Lack of institutional set-up /coordination	Other (specify):
Sub-component 1.1: Physical Conditions																										
Topic 1.1.1: Atmosphere, climate and weather																										
a. Temperature	**1. Monthly average**	Degrees	▪ National ▪ Sub-national																							
	2. Minimum monthly average	Degrees																								
	3. Maximum monthly average	Degrees																								
b. Precipitation (also in 2.6.1.a)	**1. Annual average**	Height																								
	2. Long-term annual average	Height																								
	3. Monthly average	Height																								
	4. Minimum monthly value	Height																								
	5. Maximum monthly value	Height																								
c. Relative humidity	1. Minimum monthly value	Number																								
	2. Maximum monthly value	Number																								
d. Pressure	*1. Minimum monthly value*	Pressure unit	▪ National ▪ Sub-national ▪ By station																							
	2. Maximum monthly value	Pressure unit																								
e. Wind speed	*1. Minimum monthly value*	Speed	▪ National ▪ Sub-national																							
	2. Maximum monthly value	Speed																								
f. Solar radiation	*1. Average daily value*	Area, Energy unit	▪ National ▪ Sub-national																							
	2. Average monthly value	Area, Energy unit																								
	3. Number of hours of sunshine	Number	▪ National ▪ Sub-national ▪ By month and per year																							
g. UV radiation	*1. Maximum daily value*	Area, Energy unit	▪ National ▪ Sub-national																							
	2. Average daily value	Area, Energy unit																								
	3. Maximum monthly value	Area, Energy unit																								
	4. Average monthly value	Area, Energy unit																								
h. Occurrence of El Niño/La Niña events, when relevant	*1. Occurrence*	Number	▪ By location ▪ National ▪ Sub-national																							
	2. Time period	Time period																								

Topic 1.1.2: Hydrographical characteristics																															
a. Lakes	1. Surface area	Area	▪ By location ▪ By watershed/ river basin ▪ National ▪ Sub-national																												
	2. Maximum depth	Depth																													
b. Rivers and streams	1. Length	Length																													
c. Artificial reservoirs	*1. Surface area*	Area																													
	2. Maximum depth	Depth																													
d. Watersheds	**1. Description of main watersheds**	Area, Description																													
e. Seas	1. Coastal waters	Area	▪ By location ▪ National, within coastal waters or Exclusive Economic Zone (EEZ)																												
	2. Territorial sea	Area																													
	3. Exclusive Economic Zone (EEZ)	Area																													
	4. Sea level	Depth																													
	5. Area of sea ice	Area																													
f. Aquifers		Depth, Description	▪ By location ▪ By salinity levels ▪ By watershed ▪ National ▪ Sub-national ▪ Renewable ▪ Non-renewable																												
g. Glaciers		Area	▪ By location ▪ National ▪ Sub-national																												
Topic 1.1.3: Geological and geographical information																															
a. Geological, geographical and geomorphological conditions of terrestrial areas and islands	1. Length of border	Length	▪ National																												
	2. Area of country or region	Area, Location																													
	3. Number of islands	Number	▪ By location ▪ National																												
	4. Area of islands	Area																													
	5. Main geomorphological characteristics of islands	Description																													
	6. Spatial distribution of land relief	Description, Location																													
	7. Characteristics of landforms (e.g., plains, hills, plateaus, dunes, volcanoes, mountains, sea mounts)	Description, Area, Height																													
	8. Area by rock types	Area																													
	9. Length of fault lines	Length																													
b. Coastal waters (including area of coral reefs and mangroves)		Area, Description																													
c. Length of marine coastline		Length																													
d. Coastal area		Area																													
Topic 1.1.4: Soil characteristics																															
a. Soil characterization	**1. Area by soil types**	Area	▪ By location ▪ By soil type ▪ National ▪ Sub-national																												
b. Soil degradation	**1. Area affected by soil erosion**	Area																													
	2. Area affected by desertification	Area																													
	3. Area affected by salinization	Area																													
	4. Area affected by waterlogging	Area																													
	5. Area affected by acidification	Area																													
	6. Area affected by compaction	Area																													
c. Nutrient content of soil, measured in levels of:	1. Nitrogen (N)	Concentration	▪ By soil type ▪ By nutrient ▪ National ▪ Sub-national																												
	2. Phosphorous (P)	Concentration																													
	3. Calcium (Ca)	Concentration																													
	4. Magnesium (Mg)	Concentration																													
	5. Potassium (K)	Concentration																													
	6. Zinc (Zn)	Concentration																													
	7. Other	Concentration																													

Sub-component 1.2: Land Cover, Ecosystems and Biodiversity																										
Topic 1.2.1: Land cover																										
a. Area under land cover categories	**1. Area**	Area	• By location • By type of land cover (e.g., artificial surfaces including urban and associated areas; herbaceous crops; woody crops; multiple or layered crops; grassland; tree covered areas; mangroves; shrub covered areas; shrubs and/or herbaceous vegetation, aquatic or regularly flooded; sparsely natural vegetated areas; terrestrial barren land; permanent snow and glaciers; inland water bodies; and coastal water bodies and inter-tidal areas)[(a)] • National • Sub-national																							

Topic 1.2.2: Ecosystems and biodiversity

a. General ecosystem characteristics, extent and pattern	**1. Area of ecosystems**	Area	▪ By location ▪ By ecosystem (e.g., forest, cultivated, dryland, coastal, marine, urban, polar, inland water, island, mountain)[b]																								
	2. Proximity of ecosystem to urban areas and cropland	Distance																									
b. Ecosystems' chemical and physical characteristics	*1. Nutrients*	Concentration																									
	2. Carbon	Concentration																									
	3. Pollutants	Concentration																									
c. Biodiversity	**1. Known flora and fauna species**	Number	▪ By ecosystem (e.g., forest, cultivated, dryland, coastal, marine, urban, polar, inland water, island, mountain)[b] ▪ By status category (e.g., extinct, extinct in the wild, threatened, near threatened least concern) ▪ By class (e.g., mammals, fishes, birds, reptiles) ▪ National ▪ Sub-national																								
	2. Endemic flora and fauna species	Number																									
	3. Invasive alien flora and fauna species	Number																									
	4. Species population	Number																									
	5. Habitat fragmentation	Area, Description, Location, Number																									
d. Protected areas and species	**1. Protected terrestrial and marine area** (also in 1.2.3.a)	Number, Area	▪ By location ▪ By management category[c] ▪ By ecosystem (e.g., forest, cultivated, dryland, coastal, marine, urban, polar, inland water, island, mountain)[b] ▪ National ▪ Sub-national																								
	2. Protected flora and fauna species	Number	▪ By species ▪ By ecosystem (e.g., forest, cultivated, dryland, coastal, marine, urban, polar, inland water, island, mountain)[b] ▪ By status category ▪ National ▪ Sub-national																								

(a) SEEA land cover categories, based on FAO Land Cover Classification System (http://unstats.un.org/unsd/envaccounting/seeaRev/SEEA_CF_Final_en.pdf)
(b) Reporting categories used in the Millennium Ecosystem Assessment (http://www.millenniumassessment.org/documents/document.356.aspx.pdf)
(c) IUCN reporting categories: Strict nature reserves; Wilderness areas; National parks, Natural monuments or features; Habitat/species management areas; Protected landscapes/seascapes; and Protected areas with sustainable use of natural resources (http://www.iucn.org/theme/protected-areas/about/categories)

Topic 1.2.3: Forests

a. Forest area	**1. Total**	Area	▪ By forest type ▪ National ▪ Sub-national ▪ By dominant tree species ▪ By ownership category																								
	2. Natural	Area																									
	3. Planted	Area																									
	4. Protected forest area (also in 1.2.2.d)	Area																									
	5. Forest area affected by fire	Area																									
b. Forest biomass	1. Total	Volume																									
	2. Carbon storage in living forest biomass	Mass																									

Sub-component 1.3: Environmental Quality

Topic 1.3.1: Air quality

a. Local air quality	**1. Concentration level of particulate matter (PM_{10})**	Concentration	▪ By point measurement ▪ Sub-national ▪ Daily maximum ▪ Monthly maximum and average ▪ Yearly maximum and average																											
	2. Concentration level of particulate matter ($PM_{2.5}$)	Concentration																													
	3. Concentration level of tropospheric ozone (O_3)	Concentration																													
	4. Concentration level of carbon monoxide (CO)	Concentration																													
	5. Concentration level of sulphur dioxide (SO_2)	Concentration																													
	6. Concentration levels of nitrogen oxides (NO_X)	Concentration																													
	7. Concentration levels of heavy metals	Concentration																													
	8. Concentration levels of non-methane volatile organic compounds (NMVOCs)	Concentration																													
	9. Concentration levels of dioxins	Concentration																													
	10. Concentration levels of furans	Concentration																													
	11. Concentration levels of other pollutants	Concentration																													
	12. Number of days when maximum allowable levels were exceeded per year	Number	▪ By pollutant																												
b. Global atmospheric concentrations of greenhouse gases	1. Global atmospheric concentration levels of carbon dioxide (CO_2)	Concentration	▪ Global																												
	2. Global atmospheric concentration levels of methane (CH_4)	Concentration																													

Topic 1.3.2: Freshwater quality

a. Nutrients and chlorophyll	**1. Concentration level of nitrogen**	Concentration	▪ By water body ▪ By watershed/river basin ▪ By surface or groundwater ▪ By point measurement ▪ By type of water resource																											
	2. Concentration level of phosphorous	Concentration																													
	3. Concentration level of chlorophyll A	Concentration																													
b. Organic matter	**1. Biochemical oxygen demand (BOD)**	Concentration																													
	2. Chemical oxygen demand (COD)	Concentration																													
c. Pathogens	**1. Concentration levels of faecal coliforms**	Concentration																													
d. Metals (e.g., mercury, lead, nickel, arsenic, cadmium)	1. Concentrations levels in sediment and freshwater	Concentration																													
	2. Concentration levels in freshwater organisms	Concentration																													
e. Organic contaminants (e.g., PCBs, DDT, pesticides, furans, dioxins, phenols, radioactive waste)	1. Concentration levels in sediment and freshwater	Concentration																													
	2. Concentration levels in freshwater organisms	Concentration																													
f. Physical and chemical characteristics	1. pH/Acidity/Alkalinity	Level																													
	2. Temperature	Degrees																													
	3. Total suspended solids (TSS)	Concentration																													
	4. Salinity	Concentration																													
	5. Dissolved oxygen (DO)	Concentration																													
g. Plastic waste and other freshwater debris	1. Amount of plastic waste and other debris	Area, Mass																													

Topic 1.3.3: Marine water quality																											
a. Nutrients and chlorophyll	**1. Concentration level of nitrogen**	Concentration	▪ By coastal zone, delta, estuary or other local marine environment ▪ Sub-national ▪ National ▪ Supranational ▪ By point measurement ▪ By water resource																								
	2. Concentration level of phosphorous	Concentration																									
	3. Concentration level of chlorophyll A	Concentration																									
b. Organic matter	**1. Biochemical oxygen demand (BOD)**	Concentration																									
	2. Chemical oxygen demand (COD)	Concentration																									
c. Pathogens	1. Concentration levels of faecal coliforms in recreational marine waters	Concentration																									
d. Metals (e.g., mercury, lead, nickel, arsenic, cadmium)	1. Concentration levels in sediment and marine water	Concentration																									
	2. Concentration levels in marine organisms	Concentration																									
e. Organic contaminants (e.g., PCBs, DDT, pesticides, furans, dioxins, phenols, radioactive waste)	*1. Concentration levels in sediment and marine water*	Concentration																									
	2. Concentration levels in marine organisms	Concentration																									
f. Physical and chemical characteristics	*1. pH/Acidity/Alkalinity*	Level																									
	2. Temperature	Degrees																									
	3. Total suspended solids (TSS)	Concentration																									
	4. Salinity	Concentration																									
	5. Dissolved oxygen (DO)	Concentration																									
	6. Density	Density																									
g. Coral bleaching	**1. Area affected by coral bleaching**	Area																									
h. Plastic waste and other freshwater debris	*1. Amount of plastic waste and other debris in marine waters*	Area, Mass	▪ By coastal zone, delta, estuary or other local marine environment ▪ By location ▪ Sub-national ▪ National ▪ Supranational ▪ By point measurement																								
i. Red tide	*1. Occurrence*	Number																									
	2. Impacted area	Area																									
	3. Duration	Duration																									
j. Oil pollution	*1. Area of oil slicks*	Area																									
	2. Amount of tar balls	Area, Diameter, Number																									
Topic 1.3.4: Soil pollution																											
a. Sites affected by pollution	1. Contaminated sites	Area, Number	▪ By location ▪ Sub-national ▪ By type of pollutant ▪ By source																								
	2. Potentially contaminated sites	Area, Number																									
	3. Remediated sites	Area, Number																									
	4. Other sites	Area, Number																									
Topic 1.3.5: Noise																											
a. Noise levels from specific sources		Level	▪ By source ▪ By location ▪ Sub-national																								
b. Noise levels in specific locations		Level																									

Component 2: Environmental Resources and their Use

	Statistics and Related Information	Category of Measurement	Potential Aggregations and Scales	Relevance of Statistic at the National Level (High /Medium /Low/Not Relevant/Not Applicable)	Priority for National Data Collection (High /Medium /Low/Not a Priority)	Availability of Statistic at the National Level (Identical/Similar/Not Available)	Primary Institution(s) Responsible for Collecting Statistic Check all that apply			Type of Data Source	Requirements or User Requests for Collection/ Reporting on this Statistic Check all that apply				Periodicity (Annual/Monthly/Daily/Hourly/Other [specify])	Earliest Year Available	Latest Year Available	Format of Statistic (Publication/Excel/Database/Website/Individual records)	Unit of Measurement	Main Reasons why Statistic is not Available Check all that apply					
	Bold Text - Core Set/Tier 1 Regular Text - Tier 2 *Italicized Text - Tier 3*						NSO	Ministry of Environment or equivalent institution	Other (specify):		Sub-national	National	Regional	International						Resource constraints	Methodological/Technical difficulty in data collection	Insufficient quality	Inaccessibility	Lack of institutional set-up /coordination	Other (specify):
Sub-component 2.1: Mineral Resources																									
Topic 2.1.1: Stocks and changes of mineral resources																									
a. Mineral resources	**1. Stocks of commercially recoverable resources**	Mass, Volume	▪ By mineral (e.g., metal ores including precious metals and rare earths, coal, oil, gas, stone, sand and clay, chemical and fertilizer minerals, salt, gemstones, abrasive minerals, graphite, asphalt, natural solid bitumen, quartz, mica) ▪ National ▪ Sub-national																						
	2. New discoveries	Mass, Volume																							
	3. Upward reappraisals	Mass, Volume																							
	4. Upward reclassifications	Mass, Volume																							
	5. Extraction	Mass, Volume																							
	6. Catastrophic losses	Mass, Volume																							
	7. Downward reappraisals	Mass, Volume																							
	8. Downward reclassifications	Mass, Volume																							
	9. Stocks of potentially commercially recoverable resources	Mass, Volume																							
	10. Stocks of non-commercial and other known resources	Mass, Volume																							
Topic 2.1.2: Production and trade of minerals																									
a. Production of minerals		Mass, Volume	▪ By mineral (e.g., metal ores including precious metals and rare earths, coal, oil, gas, stone, sand and clay, chemical and fertilizer minerals, salt, gemstones, abrasive minerals, graphite, asphalt, natural solid bitumen, quartz, mica) ▪ National ▪ Sub-national																						
b. Imports of minerals		Currency, Mass, Volume																							
c. Exports of minerals		Currency, Mass, Volume																							

Sub-component 2.2: Energy Resources

Topic 2.2.1: Stocks and changes of energy resources

a. Energy resources	**1. Stocks of commercially recoverable resources**	Mass, Volume	▪ By resource (e.g., natural gas, crude oil and natural gas liquids, oil shale, and extra heavy oil (includes oil extracted from oil sands), coal and lignite, peat, non-metallic minerals except for coal or peat, uranium and thorium ores ▪ National ▪ Sub-national																									
	2. New discoveries	Mass, Volume																												
	3. Upward reappraisals	Mass, Volume																												
	4. Upward reclassifications	Mass, Volume																												
	5. Extraction	Mass, Volume																												
	6. Catastrophic losses	Mass, Volume																												
	7. Downward reappraisals	Mass, Volume																												
	8. Downward reclassifications	Mass, Volume																												
	9. Stocks of potentially commercially recoverable resources	Mass, Volume																												
	10. Stocks of non-commercial and other known resources	Mass, Volume																												

Topic 2.2.2: Production, trade and consumption of energy

a. Production of energy	**1. Total production**	Energy unit, Mass, Volume	▪ By non-renewable resource (e.g., petroleum, natural gas, coal, nuclear fuels, non-sustainable firewood, waste, other non-renewables) ▪ By renewable resource (e.g., solar, hydroelectric, geothermal, tidal action, wave action, marine, wind, biomass) ▪ National ▪ Sub-national																									
	2. Production from non-renewable sources	Energy unit, Mass, Volume																												
	3. Production from renewable sources	Energy unit, Mass, Volume																												
	4. Primary energy production	Energy unit, Mass, Volume	▪ By primary energy resource (e.g., petroleum, natural gas, coal, hydroenergy, geothermal, nuclear fuels, cane products, other primary) ▪ By secondary energy product (e.g., electricity, liquefied petroleum gas, gasoline/alcohol, kerosene, diesel oil, fuel oil, coke, charcoal, gases, other secondary) ▪ National ▪ Sub-national																									
	5. Imports of energy	Energy unit, Mass, Volume																												
	6. Exports of energy	Energy unit, Mass, Volume																												
	7. Secondary energy production	Energy unit, Mass, Volume																												
b. Total energy supply		Energy unit, Mass, Volume	▪ By energy product																											
c. Final consumption of energy		Energy unit, Mass, Volume	▪ By households ▪ By ISIC economic activity ▪ By tourists ▪ National ▪ Sub-national																									

Sub-component 2.3: Land																												
Topic 2.3.1: Land use																												
a. Area under land use categories		Area	▪ By type of land use (e.g., agriculture; forestry; land used for aquaculture; use of built-up and related areas; land used for maintenance and restoration of environmental functions; other uses of land not elsewhere classified; land not in use; inland waters used for aquaculture or holding facilities; inland waters used for maintenance and restoration of environmental functions; other uses of inland waters not elsewhere classified; inland water not in use; coastal waters (including area of coral reefs and mangroves); Exclusive Economic Zone (EEZ)) ▪ National ▪ Sub-national																								
b. Other aspects of land use	*1. Area of land under organic farming*	Area	▪ National ▪ Sub-national																								
	2. Area of land under irrigation	Area																									
	3. Area of land under sustainable forest management	Area																									
	4. Area of land under agroforestry	Area																									
c. Land ownership		Area	▪ By ownership category ▪ National ▪ Sub-national																								
Topic 2.3.2: Use of forest land																												
a. Use of forest land	**1. Area deforested**	Area	▪ By forest type ▪ National ▪ Sub-national ▪ By dominant tree species																								
	2. Area reforested	Area																									
	3. Area afforested	Area																									
	4. Natural growth	Area																									
b. Forest area by primary designated function		Area	▪ Production ▪ Protection of soil and water ▪ Conservation of biodiversity ▪ Social services ▪ Multiple use ▪ Other																								

Sub-component 2.4: Soil Resources

Topic 2.4.1: Soil resources

Further research is needed to develop the necessary statistics in this topic.

Sub-component 2.5: Biological Resources

Topic 2.5.1: Timber resources

a. Timber resources	**1. Stocks of timber resources**	Volume	▪ By type (e.g., natural or planted) ▪ National ▪ Sub-national																											
	2. Natural growth	Volume																												
	3. Fellings	Volume																												
	4. Removals	Volume																												
	5. Felling residues	Volume																												
	6. Natural losses	Volume																												
	7. Catastrophic losses	Volume																												
	8. Reclassifications	Volume																												
b. Amount used of:	1. Fertilizers (also in 3.4.1.a)	Area, Mass, Volume	▪ National ▪ Sub-national																											
	2. Pesticides (also in 3.4.1.b)	Area, Mass, Volume																												
c. Forest production		Volume	▪ By type of product (e.g., timber, industrial roundwood, fuelwood, pulp, chips) ▪ National																											
d. Fuelwood production		Volume	▪ National																											
e. Imports of forest products		Currency, Mass, Volume	▪ By type of product																											
f. Exports of forest products		Currency, Mass, Volume																												

Topic 2.5.2: Aquatic resources

a. Fish capture production		Mass	▪ By relevant freshwater and marine species ▪ National ▪ Sub-national																											
b. Aquaculture production		Mass																												
c. Imports of fish and fishery products		Currency, Mass, Volume	▪ By relevant freshwater and marine species																											
d. Exports of fish and fishery products		Currency, Mass, Volume	▪ By relevant freshwater and marine species ▪ By type of product ▪ By species																											
e. Amount used of:	*1. Pellets* (also in 3.4.1.c)	Mass, Volume	▪ By type of water (i.e., marine or freshwater) ▪ National ▪ Sub-national																											
	2. Hormones (also in 3.4.1.d)	Mass, Volume																												
	3. Colourants (also in 3.4.1.e)	Mass, Volume																												
	4. Antibiotics (also in 3.4.1.f)	Mass, Volume																												
	5. Fungicides	Mass, Volume																												
f. Aquatic resources	1. Stocks of aquatic resources	Mass	▪ By relevant freshwater and marine species ▪ By type (e.g., natural or cultivated) ▪ National ▪ Sub-national																											
	2. Additions to aquatic resources	Mass																												
	3. Reductions in aquatic resources	Mass																												

Topic 2.5.3: Crops																													
a. Main annual and perennial crops	**1. Area planted**	Area	▪ By crop ▪ By size ▪ National ▪ Sub-national																										
	2. Area harvested	Area																											
	3. Amount produced	Mass																											
	4. Amount of organic production	Mass																											
	5. Amount of genetically modified crops produced	Mass																											
b. Amount used of:	**1. Natural fertilizers**(e.g., manure, compost, lime) (also in 3.4.1.a)	Area, Mass, Volume	▪ By type of fertilizer ▪ By type of pesticide ▪ By crop ▪ National ▪ Sub-national																										
	2. Chemical fertilizers(also in 3.4.1.a)	Area, Mass, Volume																											
	3. Pesticides (also in 3.4.1.b)	Area, Mass, Volume																											
	4. Genetically modified seeds	Mass	▪ By crop ▪ National ▪ Sub-national																										
c. Monoculture/ resource-intensive farming systems	1. Area being used for production	Area	▪ By crop ▪ By size ▪ National ▪ Sub-national																										
	2. Amount produced	Mass																											
	3. Amount of genetically modified crops produced	Mass																											
d. Imports of crops		Currency, Mass																											
e. Exports of crops		Currency, Mass																											
Topic 2.5.4: Livestock																													
a. Livestock	**1. Number of live animals**	Number	▪ By type of animal ▪ National ▪ Sub-national																										
	2. Number of animals slaughtered	Number																											
b. Amount used of:	*1. Antibiotics* (also in 3.4.1.f)	Mass																											
	2. Hormones (also in 3.4.1.d)	Mass																											
c. Imports of livestock		Currency, Number																											
d. Exports of livestock		Currency, Number																											
Topic 2.5.5: Other non-cultivated biological resources																													
a. Permits for regulated hunting and trapping of wild animals	1. Number of permits issued per year	Number	▪ By type of animal ▪ By species																										
	2. Number of animal kills allowed by permits	Number																											
b. Imports of endangered species		Currency, Number																											
c. Exports of endangered species		Currency, Number																											
d. Reported wild animals killed or trapped for food or sale		Number																											
e. Trade in wildlife and captive-bred species		Description, Mass, Number	▪ By status category ▪ National ▪ Sub-national																										
f. Non-wood forest products and other plants		Mass, Volume	▪ By type of product ▪ National ▪ Sub-national																										

Sub-component 2.6: Water Resources

Topic 2.6.1: Water resources

a. Inflow of water to inland water resources	**1. Precipitation** (also in 1.1.1.b)	Volume	▪ National ▪ Sub-national ▪ By territory of origin and destination																								
	2. Inflow from neighbouring territories	Volume																									
	3. Inflow subject to treaties	Volume																									
b. Outflow of water from inland water resources	**1. Evapotranspiration**	Volume																									
	2. Outflow to neighbouring territories	Volume																									
	3. Outflow subject to treaties	Volume																									
	4. Outflow to the sea	Volume																									
c. Inland water stocks	1. Surface water stocks in artificial reservoirs	Volume	▪ National ▪ Sub-national																								
	2. Surface water stocks in lakes	Volume																									
	3. Surface water stocks in rivers and streams	Volume																									
	4. Surface water stocks in wetlands	Volume																									
	5. Surface water stocks in snow, ice and glaciers	Volume																									
	6. Groundwater stocks	Volume																									

Topic 2.6.2: Abstraction, use and returns of water

a. Total water abstraction		Volume	▪ By type of source ▪ National ▪ Sub-national																								
b. Water abstraction from surface water		Volume																									
c. Water abstraction from groundwater	**1. From renewable groundwater resources**	Volume																									
	2. From non-renewable groundwater resources	Volume																									
d. Water abstracted for own use		Volume	▪ By ISIC economic activity ▪ National ▪ Sub-national																								
e. Water abstracted for distribution		Volume																									
f. Desalinated water		Volume	▪ National ▪ Sub-national																								
g. Reused water		Volume																									
h. Water use		Volume	▪ By ISIC economic activity ▪ By tourists ▪ National ▪ Sub-national																								
i. Rainwater collection		Volume	▪ National ▪ Sub-national																								
j. Water abstraction from the sea		Volume																									
k. Losses during transport		Volume	▪ By ISIC economic activity ▪ National ▪ Sub-national																								
l. Exports of water		Volume	▪ National ▪ Sub-national																								
m. Imports of water		Volume																									
n. Returns of water		Volume	▪ By ISIC economic activity ▪ By destination (e.g., inland water, land, sea, ocean) ▪ National ▪ Sub-national																								

Component 3: Residuals

	Statistics and Related Information	Category of Measurement	Potential Aggregations and Scales	Relevance of Statistic at the National Level (High /Medium /Low/Not Relevant/Not Applicable)	Priority for National Data Collection (High /Medium /Low/Not a Priority)	Availability of Statistic at the National Level (Identical/Similar/Not Available)	Primary Institution(s) Responsible for Collecting Statistic Check all that apply			Type of Data Source	Requirements or User Requests for Collection/ Reporting on this Statistic Check all that apply				Periodicity (Annual/Monthly/Daily/Hourly/Other [specify])	Earliest Year Available	Latest Year Available	Format of Statistic (Publication/Excel/Database/Website/Individual records)	Unit of Measurement	Main Reasons why Statistic is not Available Check all that apply					
	Bold Text - Core Set/Tier 1 Regular Text - Tier 2 *Italicized Text - Tier 3*						NSO	Ministry of Environment or equivalent institution	Other (specify):		Sub-national	National	Regional	International						Resource constraints	Methodological/Technical difficulty in data collection	Insufficient quality	Inaccessibility	Lack of institutional set-up /coordination	Other (specify):
Sub-component 3.1: Emissions to Air																									
Topic 3.1.1: Emissions of greenhouse gases																									
a. Total emissions of direct greenhouse gases (GHGs), by gas:	**1. Carbon dioxide (CO_2)**	Mass	• By ISIC economic activity • By tourists • National • Sub-national • By IPCC source categories																						
	2. Methane (CH_4)	Mass																							
	3. Nitrous oxide (N_2O)	Mass																							
	4. Perfluorocarbons (PFCs)	Mass																							
	5. Hydrofluorocarbons (HFCs)	Mass																							
	6. Sulphur hexafluoride (SF_6)	Mass																							
b. Total emissions of indirect greenhouse gases (GHGs), by gas:	**1. Sulphur dioxide (SO_2)**	Mass																							
	2. Nitrogen oxides (NO_x)	Mass																							
	3. Non-methane volatile organic compounds (NM-VOCs)	Mass																							
	4. Other	Mass																							
Topic 3.1.2: Consumption of ozone depleting substances																									
a. Consumption of ozone depleting substances (ODSs), by substance:	1. Chlorofluorocarbons (CFCs)	Mass	• By ISIC economic activity • By tourists • National • Sub-national • By IPCC source categories																						
	2. Hydrochlorofluorocarbons (HCFCs)	Mass																							
	3. Halons	Mass																							
	4. Methyl chloroform	Mass																							
	5. Carbon tetrachloride	Mass																							
	6. Methyl bromide	Mass																							
	7. Other	Mass																							

Topic 3.1.3: Emissions of other substances																										
a. Emissions of other substances:	1. Particulate matter (PM)	Mass	▪ By ISIC economic activity ▪ By tourists ▪ National ▪ Sub-national ▪ By IPCC source categories																							
	2. Heavy metals	Mass																								
	3. Other	Mass																								
Sub-component 3.2: Generation and Management of Wastewater																										
Topic 3.2.1: Generation and pollutant content of wastewater																										
a. Volume of wastewater generated		Volume	▪ By ISIC economic activity ▪ By tourists ▪ National ▪ Sub-national																							
b. Pollutant content of wastewater		Mass	▪ By pollutant or pollution parameter (e.g., biochemical oxygen demand (BOD), chemical oxygen demand (COD), Nitrogen (N), Phosphorus (P), total suspended solids (TSS)) ▪ By ISIC economic activity ▪ National ▪ Sub-national																							

Topic 3.2.2: Collection and treatment of wastewater																										
a. Volume of wastewater collected		Volume	▪ National ▪ Sub-national																							
b. Volume of wastewater treated		Volume	▪ By treatment type (e.g., primary, secondary, tertiary) ▪ National ▪ Sub-national																							
c. Total urban wastewater treatment capacity	1. Number of plants	Number																								
	2. Capacity of plants	Volume																								
d. Total industrial wastewater treatment capacity	1. Number of plants	Number																								
	2. Capacity of plants	Volume																								
Topic 3.2.3: Discharge of wastewater to the environment																										
a. Wastewater discharge	**1. Total volume of wastewater discharged to the environment after treatment**	Volume	▪ By treatment type (e.g., primary, secondary, tertiary) ▪ By recipient (e.g., surface water, groundwater, wetland, sea, land) ▪ By ISIC economic activity ▪ National ▪ Sub-national ▪ By source (point / non-point source)																							
	2. Total volume of wastewater discharged to the environment without treatment	Volume																								
b. Pollutant content of discharged wastewater		Mass	▪ By pollutant or pollution parameter (e.g., BOD, COD, N, P) ▪ National ▪ Sub-national ▪ Net emission by ISIC economic activity ▪ By source (point /non-point source)																							

Sub-component 3.3: Generation and Management of Waste																												
Topic 3.3.1: Generation of waste																												
a. Amount of waste generated by source		Mass	▪ By ISIC economic activity ▪ By households ▪ By tourists ▪ National ▪ Sub-national																									
b. Amount of waste generated by waste category		Mass	▪ By waste category (e.g., chemical waste, municipal waste, food waste, combustion waste) ▪ National ▪ Sub-national																									
c. Amount of hazardous waste generated		Mass	▪ By ISIC economic activity ▪ National ▪ Sub-national																									
Topic 3.3.2: Management of waste																												
a. Municipal waste	**1. Total municipal waste collected**	Mass	▪ By type of treatment and disposal (e.g., reuse, recycling, composting, incineration, landfilling, other) ▪ By type of waste, when possible ▪ National ▪ Sub-national																									
	2. Amount of municipal waste treated by type of treatment and disposal	Mass																										
	3. Number of municipal waste treatment and disposal facilities	Number																										
	4. Capacity of municipal waste treatment and disposal facilities	Volume																										
b. Hazardous waste	**1. Total hazardous waste collected**	Mass																										
	2. Amount of hazardous waste treated by type of treatment and disposal	Mass																										
	3. Number of hazardous waste treatment and disposal facilities	Number																										
	4. Capacity of hazardous waste treatment and disposal facilities	Volume																										
c. Other/industrial waste	1. Total other/industrial waste collected	Mass																										
	2. Amount of other/industrial waste treated by type of treatment and disposal	Mass																										
	3. Number of other/industrial treatment and disposal facilities	Number																										
	4. Capacity of other/industrial waste treatment and disposal facilities	Volume																										
d. Amount of recycled waste		Mass	▪ By specific waste streams (e.g., e-waste, packaging waste, end of life vehicles) ▪ By waste category ▪ National ▪ Sub-national																									
e. Imports of waste		Mass	▪ By waste category (e.g., chemical waste, municipal waste, combustion waste)																									
f. Exports of waste		Mass																										
g. Imports of hazardous waste		Mass																										
h. Exports of hazardous waste		Mass																										

Sub-component 3.4: Release of Chemical Substances

Topic 3.4.1: Release of chemical substances

a. Total amount of fertilizers used	1. Natural fertilizers (also in 2.5.1.b and 2.5.3.b)	Area, Mass, Volume	▪ National ▪ Sub-national ▪ By ISIC economic activity (forestry, agriculture) ▪ By type of fertilizer ▪ By type of pesticide																												
	2. Chemical fertilizers (also in 2.5.1.b and 2.5.3.b)	Area, Mass, Volume																													
b. Total amount of pesticides used (also in 2.5.1.b and 2.5.3.b)		Area, Mass, Volume																													
c. Total amount of pellets used (also in 2.5.2.e)		Mass, Volume	▪ National ▪ Sub-national ▪ By ISIC economic activity (aquaculture)																														
d. Total amount of hormones used (also in 2.5.2.e and 2.5.4.b)		Mass, Volume	▪ National ▪ Sub-national ▪ By ISIC economic activity (aquaculture, livestock production)																														
e. Total amount of colourants used (also in 2.5.2.e)		Mass, Volume	▪ National ▪ Sub-national ▪ By ISIC economic activity (aquaculture)																														
f. Total amount of antibiotics used (also in 2.5.2.e and 2.5.4.b)		Mass, Volume	▪ National ▪ Sub-national ▪ By ISIC economic activity (aquaculture, livestock production)																														

Component 4: Extreme Events and Disasters

	Statistics and Related Information	Category of Measurement	Potential Aggregations and Scales	Relevance of Statistic at the National Level (High /Medium /Low/Not Relevant/Not Applicable)	Priority for National Data Collection (High /Medium /Low/Not a Priority)	Availability of Statistic at the National Level (Identical/Similar/Not Available)	Primary Institution(s) Responsible for Collecting Statistic Check all that apply			Type of Data Source	Requirements or User Requests for Collection/ Reporting on this Statistic Check all that apply				Periodicity (Annual/Monthly/Daily/Hourly/Other [specify])	Earliest Year Available	Latest Year Available	Format of Statistic (Publication/Excel/Database/Website/Individual records)	Unit of Measurement	Main Reasons why Statistic is not Available Check all that apply					
	Bold Text - Core Set/Tier 1 Regular Text - Tier 2 *Italicized Text - Tier 3*						NSO	Ministry of Environment or equivalent institution	Other (specify):		Sub-national	National	Regional	International						Resource constraints	Methodological/Technical difficulty in data collection	Insufficient quality	Inaccessibility	Lack of institutional set-up /coordination	Other (specify):
Sub-component 4.1: Natural Extreme Events and Disasters																									
Topic 4.1.1: Occurrence of natural extreme events and disasters																									
a. Occurrence of natural extreme events and disasters:	**1. Type of natural extreme event and disaster** (geophysical, meteorological, hydrological, climatological, biological)	Description	• By event • National • Sub-national																						
	2. Location	Location																							
	3. Magnitude (where applicable)	Intensity																							
	4. Date of occurrence	Date																							
	5. Duration	Time Period																							
Topic 4.1.2: Impact of natural extreme events and disasters																									
a. People affected by natural extreme events and disasters	**1. Number of people killed**	Number	• By event • National • Sub-national																						
	2. Number of people injured	Number																							
	3. Number of people homeless	Number																							
	4. Number of people affected	Number																							
b. Economic losses due to natural extreme events and disasters (e.g., damage to buildings, transportation networks, loss of revenue for businesses, utility disruption)		Currency	• By event • By ISIC economic activity • National • Sub-national																						
c. Physical losses/damages due to natural extreme events and disasters (e.g., area and amount of crops, livestock, aquaculture, biomass)		Area, Description, Number	• By direct and indirect damage																						
d. Effects of natural extreme events and disasters on integrity of ecosystems	*1. Area affected by natural disasters*	Area	• By event • National • Sub-national																						
	2. Loss of vegetation cover	Area																							
	3. Area of watershed affected	Area																							
	4. Other	Description																							
e. External assistance received		Currency	• By event • National																						

Sub-component 4.2: Technological Disasters																															
Topic 4.2.1: Occurrence of technological disasters																															
a. Occurrence of technological disasters:	1. Type of technological disaster (industrial, transportation, miscellaneous)	Description	▪ By event ▪ By ISIC economic activity ▪ National ▪ Sub-national																												
	2. Location	Location																													
	3. Date of occurrence	Date																													
	4. Duration	Time Period																													
Topic 4.2.2: Impact of technological disasters																															
a. People affected by technological disasters	1. Number of people killed	Number	▪ By event ▪ National ▪ Sub-national																												
	2. Number of people injured	Number																													
	3. Number of people homeless	Number																													
	4. Number of people affected	Number																													
b. Economic losses due to technological disasters (e.g., damage to buildings, transportation networks, loss of revenue for businesses, utility disruption)		Currency	▪ By event ▪ By ISIC economic activity ▪ National ▪ Sub-national ▪ By direct and indirect damage																												
c. Physical losses/damages due to technological disasters (e.g., area and amount of crops, livestock, aquaculture, biomass)		Area, Description, Number																													
d. Effects of technological disasters on integrity of ecosystems	*1. Area affected by technological disasters*	Area	▪ By event ▪ National ▪ Sub-national																												
	2. Loss of vegetation cover	Area																													
	3. Area of watershed affected	Area																													
	4. Other (e.g., for oil spills: volume of oil released into the environment, impact on ecosystem)	Description																													
e. External assistance received		Currency	▪ By event ▪ National																												

Component 5: Human Settlements and Environmental Health

	Statistics and Related Information **Bold Text - Core Set/Tier 1** Regular Text - Tier 2 *Italicized Text - Tier 3*	Category of Measurement	Potential Aggregations and Scales	Relevance of Statistic at the National Level (High /Medium /Low/Not Relevant/Not Applicable)	Priority for National Data Collection (High /Medium /Low/Not a Priority)	Availability of Statistic at the National Level (Identical/Similar/Not Available)	Primary Institution(s) Responsible for Collecting Statistic Check all that apply			Type of Data Source	Requirements or User Requests for Collection/ Reporting on this Statistic Check all that apply				Periodicity (Annual/Monthly/Daily/Hourly/Other [specify])	Earliest Year Available	Latest Year Available	Format of Statistic (Publication/Excel/Database/Website/Individual records)	Unit of Measurement	Main Reasons why Statistic is not Available Check all that apply					
							NSO	Ministry of Environment or equivalent institution	Other (specify):		Sub-national	National	Regional	International						Resource constraints	Methodological/Technical difficulty in data collection	Insufficient quality	Inaccessibility	Lack of institutional set-up /coordination	Other (specify):
Sub-component 5.1: Human Settlements																									
Topic 5.1.1: Urban and rural population																									
a. Population living in urban areas		Number	• Urban • Rural																						
b. Population living in rural areas		Number																							
c. Total urban area		Area																							
d. Total rural area		Area																							
e. Population living in coastal areas		Number																							
Topic 5.1.2: Access to selected basic services																									
a. Population using an improved drinking water source		Number	• Urban • Rural • National • Sub-national																						
b. Population using an improved sanitation facility		Number																							
c. Population served by municipal waste collection		Number																							
d. Population connected to wastewater collecting system		Number	• By treatment type (e.g., primary, secondary, tertiary) • National • Sub-national																						
e. Population connected to wastewater treatment		Number																							
f. Population supplied by water supply industry		Number	• National • Sub-national																						
g. Price of water		Currency	• By source (e.g., piped, vendor)																						
h. Population with access to electricity		Number																							
i. Price of electricity		Currency																							

Topic 5.1.3: Housing conditions																										
a. Urban population living in slums		Number																								
b. Area of slums		Area																								
c. Population living in hazard-prone areas		Number	• Urban • Rural • National • Sub-national																							
d. Hazard prone-areas		Area																								
e. Population living in informal settlements		Number																								
f. Homeless population		Number																								
g. Number of dwellings with adequacy of building materials defined by national or local standards		Number																								
Topic 5.1.4: Exposure to ambient pollution																										
a. Population exposed to air pollution in main cities		Number	• By pollutant (e.g., SO_2, NO_x, O_3)																							
b. Population exposed to noise pollution in main cities		Number																								
Topic 5.1.5: Environmental concerns specific to urban settlements																										
a. Extent of urban sprawl		Area																								
b. Available green spaces		Area																								
c. Number of private and public vehicles		Number	• By type of engine or type of fuel																							
d. Population using public modes of transportation		Number																								
e. Population using hybrid and electric modes of transportation		Number																								
f. Extent of roadways		Length																								
g. Existence of urban planning and zoning regulations and instruments in main cities		Description																								
h. Effectiveness of urban planning and zoning regulations and instruments in main cities		Description																								
Sub-component 5.2: Environmental Health																										
Topic 5.2.1: Airborne diseases and conditions																										
a. Airborne diseases and conditions	1. Incidence	Number	• By disease or condition • National • Sub-national • Urban • Rural • By gender • By age group • By time period																							
	2. Prevalence	Number																								
	3. Mortality	Number																								
	4. Loss of work days	Number																								
	5. Estimates of economic cost in monetary terms	Currency																								
Topic 5.2.2: Water-related diseases and conditions																										
a. Water-related diseases and conditions	**1. Incidence**	Number	• By disease or condition • National • Sub-national • Urban • Rural • By gender • By age group • By time period																							
	2. Prevalence	Number																								
	3. Mortality	Number																								
	4. Loss of work days	Number																								
	5. Estimates of economic cost in monetary terms	Currency																								

Topic 5.2.3: Vector-borne diseases																											
a. Vector-borne diseases	**1. Incidence**	Number	▪ By disease or condition ▪ National ▪ Sub-national ▪ Urban ▪ Rural ▪ By gender ▪ By age group ▪ By time period																								
	2. Prevalence	Number																									
	3. Mortality	Number																									
	4. Loss of work days	Number																									
	5. Estimates of economic cost in monetary terms	Currency																									
Topic 5.2.4: Health problems associated with excessive UV radiation exposure																											
a. Problems associated with excessive UV radiation exposure	*1. Incidence*	Number	▪ By disease or condition ▪ National ▪ Sub-national ▪ Urban ▪ Rural ▪ By gender ▪ By age group ▪ By time period																								
	2. Prevalence	Number																									
	3. Loss of work days	Number																									
	4. Estimates of economic cost in monetary terms	Currency																									
Topic 5.2.5: Toxic substance- and nuclear radiation-related diseases and conditions																											
a. Toxic substance- and nuclear radiation-related diseases and conditions	1. Incidence	Number	▪ By category of toxic substance ▪ By disease or condition ▪ National ▪ Sub-national ▪ Urban ▪ Rural ▪ By gender ▪ By age group																								
	2. Prevalence	Number																									
	3. Loss of work days	Number																									
	4. Estimates of economic cost in monetary terms	Currency																									

Component 6: Environmental Protection, Management and Engagement

	Statistics and Related Information	Category of Measurement	Potential Aggregations and Scales	Relevance of Statistic at the National Level (High /Medium /Low/Not Relevant/Not Applicable)	Priority for National Data Collection (High /Medium /Low/Not a Priority)	Availability of Statistic at the National Level (Identical/Similar/Not Available)	Primary Institution(s) Responsible for Collecting Statistic Check all that apply			Type of Data Source	Requirements or User Requests for Collection/ Reporting on this Statistic Check all that apply				Periodicity (Annual/Monthly/Daily/Hourly/Other [specify])	Earliest Year Available	Latest Year Available	Format of Statistic (Publication/Excel/Database/Website/Individual records)	Unit of Measurement	Main Reasons why Statistic is not Available Check all that apply					
	Bold Text - Core Set/Tier 1 Regular Text - Tier 2 *Italicized Text - Tier 3*						NSO	Ministry of Environment or equivalent institution	Other (specify):		Sub-national	National	Regional	International						Resource constraints	Methodological/Technical difficulty in data collection	Insufficient quality	Inaccessibility	Lack of institutional set-up /coordination	Other (specify):
Sub-component 6.1: Environmental protection and resource management expenditure																									
Topic 6.1.1: Government environmental protection and resource management expenditure																									
a. Government environmental protection and resource management expenditure	**1. Annual government environmental protection expenditure**	Currency	▪ By environmental activity ▪ By type of expenditure: current, investment ▪ By ministry ▪ National ▪ Sub-national ▪ By funding																						
	2. Annual government resource management expenditure	Currency																							
Topic 6.1.2: Corporate, non-profit institution and household environmental protection and resource management expenditure																									
a. Private sector environmental protection and resource management expenditure	1. Annual corporate environmental protection expenditure	Currency	▪ By environmental activity ▪ By type of expenditure: current, investment ▪ By ISIC economic activity ▪ National ▪ Sub-national																						
	2. Annual corporate resource management expenditure	Currency																							
	3. Annual non-profit institution environmental protection expenditure	Currency																							
	4. Annual non-profit institution resource management expenditure	Currency																							
	5. Annual household environmental protection expenditure	Currency																							
	6. Annual household resource management expenditure	Currency																							

Sub-component 6.2: Environmental Governance and Regulation																																
Topic 6.2.1: Institutional strength																																
a. Environmental institutions and their resources	1. Name of main environmental authority and year of establishment	Description	• National • Sub-national																													
	2. Annual budget of the main environmental authority	Currency																														
	3. Number of staff in the main environmental authority	Number																														
	4. List of environmental departments in other authorities and year of establishment	Description																														
	5. Annual budget of environmental departments in other authorities	Currency																														
	6. Number of staff of environmental departments in other authorities	Number																														
b. Other institutions and their resources	1. Name of institution and year of establishment	Description																														
	2. Annual budget of the institution	Currency																														
	3. Number of staff in the institution	Number																														
Topic 6.2.2: Environmental regulation and instruments																																
a. Direct regulation	**1. List of regulated pollutants and description** (e.g., by year of adoption and maximum allowable levels)	Description, Number	• By media (e.g., water, air, land, soil, oceans) • By ISIC economic activity • National • Sub-national																													
	2. Description (e.g., name, year established) of licensing system to ensure compliance with environmental standards for businesses or other new facilities	Description																														
	3. Number of applications for licences received and approved per year	Number																														
	4. List of quotas for biological resource extraction	Number																														
	5. Budget and number of staff dedicated to enforcement of environmental regulations	Currency, Number																														
b. Economic instruments	*1. List and description* (e.g., year of establishment) of green/environmental taxes	Description, Currency																														
	2. List and description (e.g., year of establishment) *of environmentally relevant subsidies*	Description, Currency																														
	3. List of eco-labelling and environmental certification programmes	Description																														
	4. Emission permits traded	Number, Currency																														
Topic 6.2.3: Participation in MEAs and environmental conventions																																
a. Participation in MEAs and other global environmental conventions	**1. List and description** (e.g., country's year of participation[(d)]) **of MEAs and other global environmental conventions**	Description, Number																														
(d) Participation means that the country or area has become party to the agreements under the treaty or convention, which is achieved through various means depending on the country's circumstances, namely: accession, acceptance, approval, formal confirmation, ratification and succession. Countries or areas that have signed but not become party to the agreements under a given convention or treaty are not considered to be participating.																																

Sub-component 6.3: Extreme Event Preparedness and Disaster Management																											
Topic 6.3.1: Preparedness for natural extreme events and disasters																											
a. National natural extreme event and disaster preparedness and management systems	1. Existence of national disaster plans/programmes	Description	• National • Sub-national																								
	2. Description (e.g., number of staff) of national disaster plans/programmes	Description																									
	3. Number and type of shelters in place or able to be deployed	Description, Number																									
	4. Number and type of internationally certified emergency and recovery management specialists	Description, Number																									
	5. Number of volunteers	Number																									
	6. Quantity of first aid, emergency supplies and equipment stockpiles	Number																									
	7. Existence of early warning systems for all major hazards	Description																									
	8. Expenditure on disaster prevention, preparedness, clean-up and rehabilitation	Currency																									
Topic 6.3.2: Preparedness for technological disasters																											
a. National technological disaster preparedness and management systems	*1. Existence and description* (e.g., number of staff) *of public disaster management plans/programmes* (and private when available)	Description	• National • Sub-national																								
	2. Expenditure on disaster prevention, preparedness, clean-up and rehabilitation	Currency																									
Sub-component 6.4: Environmental Information and Awareness																											
Topic 6.4.1: Environmental Information																											
a. Environmental information systems	1. Existence of publicly accessible environmental information system	Description	• National • Sub-national																								
	2. Annual number of visits/users of specific environmental information programmes or environmental information systems	Number																									
b. Environment statistics	1. Description of national environment statistics programmes (e.g., existence, year of establishment, lead agency, human and financial resources)	Description																									
	2. Number and type of environment statistics products and periodicity of updates	Description, Number																									
	3. Existence and number of participant institutions in inter-agency environment statistics platforms or committees	Number																									

Topic 6.4.2: Environmental Education																												
a. Environmental education	*1. Allocation of resources by central and local authorities for environmental education*	Currency	• National • Sub-national																									
	2. Number and description of environmental education programmes in schools	Description, Number																										
	3. Number of students pursuing environment-related higher education (e.g., science, management, education, engineering)	Number																										
Topic 6.4.3: Environmental Perception and Awareness																												
a. Public environmental perception and awareness	*1. Knowledge and attitudes about environmental issues or concerns*	Description	• National • Sub-national																									
	2. Knowledge and attitudes about environmental policies	Description																										
Topic 6.4.4: Environmental engagement																												
a. Environmental engagement	1. Existence of pro-environmental NGOs (number of NGOs and their respective human and financial resources)	Currency, number	• National • Sub-national																									
	2. Number of pro-environmental activities	Number																										
	3. Number of pro-environmental programmes	Number																										

Comments:

Comments:

Comments: