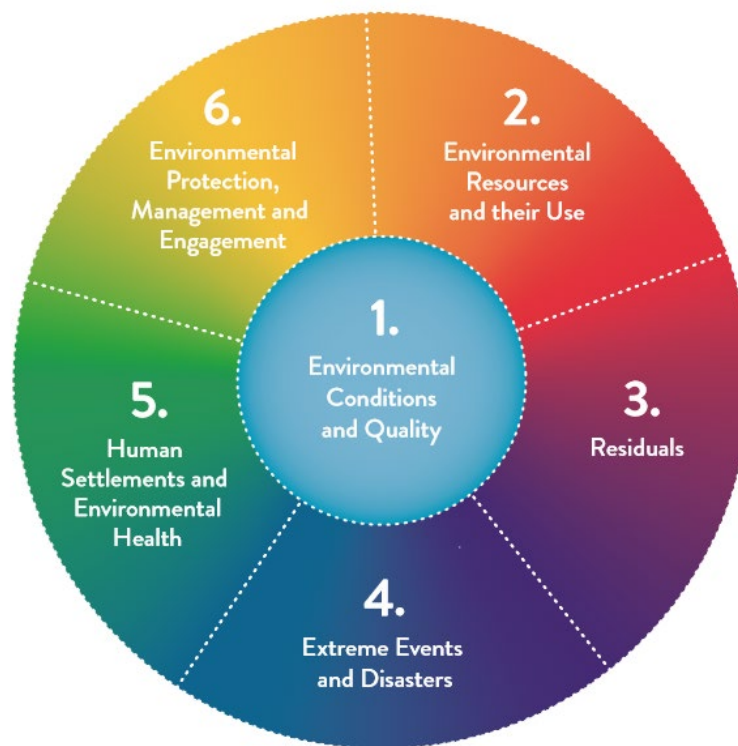


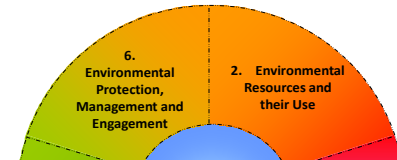
Session 1.2: Basic Set of Environment Statistics



Regional Workshop on Environment Statistics and Climate Change Statistics for the Caribbean Community (CARICOM) Region

St. George's, Grenada, 4-8 November 2019





Basic Set of Environment Statistics

28 August 2018

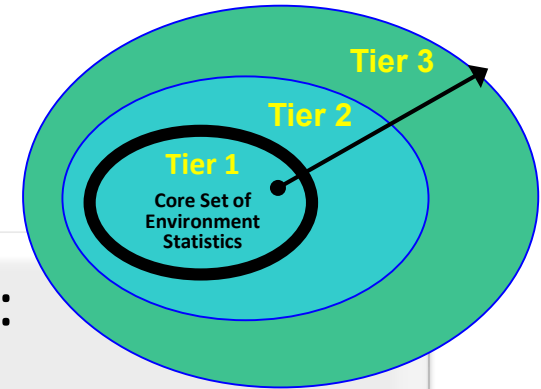
Component 1: Environmental Conditions and Quality

Sub-component 1.1: Physical Conditions

Topic	Statistics and Related Information (Bold Text - Core Set/Tier 1; Regular Text - Tier 2; <i>Italicized Text</i> - Tier 3)		Category of Measurement	Potential Aggregations and Scales	Methodological Guidance
Topic 1.1.1: Atmosphere, climate and weather	a.	Temperature		<ul style="list-style-type: none"> National Sub-national 	<ul style="list-style-type: none"> World Meteorological Organization (WMO) Intergovernmental Panel on Climate Change (IPCC) National Oceanic and Atmospheric Administration (NOAA)/National Aeronautics and Space Administration (NASA)
		1. Monthly average	Degrees		
		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		<ul style="list-style-type: none"> National Sub-national By station 	
		1. Minimum monthly value	Number		
		2. Maximum monthly value	Number		
	d.	Pressure			
		1. <i>Minimum monthly value</i>	Pressure unit		
		2. <i>Maximum monthly value</i>	Pressure unit		
	e.	Wind speed		<ul style="list-style-type: none"> National Sub-national By station 	
		1. <i>Minimum monthly value</i>			
	2. <i>Maximum monthly value</i>				
f.	Solar radiation				
	1. <i>Average daily value</i>				
	2. <i>Average monthly value</i>				

- BSES is available in all UN official languages: <https://unstats.un.org/unsd/envstats/fdes/basicset.cshtml>
- All statistical tables from chapter 3 included, on 44 pages document
- From Basic set to core set in chapter 4

Why do we need a Basic Set of Environment Statistics?



- The Basic Set was developed in response to:
 - country demand;
 - relevance of the statistics to environmental policies/issues;
 - corresponding FDES topics.
- The statistics contained in the Set are useful for:
 - generating national sets or databases of environment statistics.
 - reporting on environment (MEAs) or sustainable development (SDGs).
 - calculating environmental indicators.
 - generating environmental-economic accounts.



Process

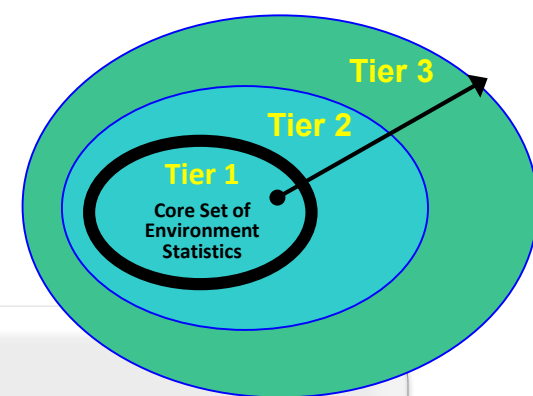
United Nations Statistics Division (1988). *Concepts and Methods of Environment Statistics: Human Settlements Statistics—A Technical Report*, available from http://unstats.un.org/unsd/publication/SeriesF/SeriesF_51e.pdf

United Nations Statistics Division (1991). *Concepts and Methods of Environment Statistics: Statistics of the Natural Environment—A Technical Report*, available from http://unstats.un.org/unsd/publication/SeriesF/SeriesF_57E.pdf

- The development of the Basic Set of Environment Statistics began in **2010** with a review of the UNSD List of **Environmental Indicators, adopted by the United Nations Statistical Commission in 1995**, and the lists of environment statistics contained in the **two technical reports which accompanied the 1984 FDES**.
- The process also involved assessing **international data** collection efforts, including major global or regional indicator initiatives. The selection of statistics also took into account the relevant data needed to **respond to global environmental conventions and MEAs**.

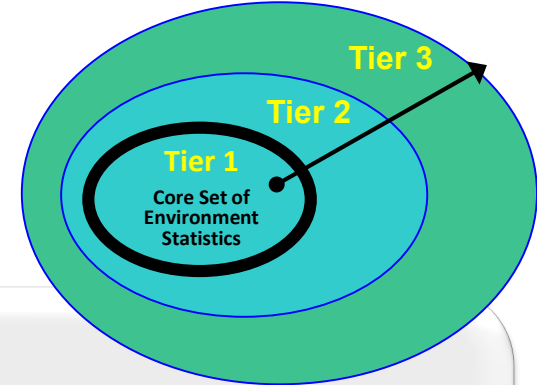


Process of developing the Basic Set



- The process included a review of **2,575** environmental indicators and statistics.
- Indicators and statistics were reviewed from **37 sources and 65 lists/sets** from international, regional and inter-governmental institutions, global environmental conventions, academia and NGOs.
- These indicators and statistics were then organized around **preliminary themes and subthemes**. By indicating global, regional and thematic priorities, this approach helped to determine the FDES component structure. It also provided the opportunity to identify those closely related fields that, due to their importance, should be included in the scope of the FDES.
- The contents of the Basic Set were then tested, on a pilot basis, **in 25 countries** from all regions of the world at various stages of developing their national environment statistics.
- The pilot test in each country consisted primarily of assessing the **relevance and availability of the statistics**. The countries were also asked to indicate the **priority of each statistic for national policymaking**.
- The results of this pilot test have helped to prioritize and determine the appropriate set of statistics to be included in the Core Set (Tier 1), Tier 2 and Tier 3.

The Basic Set of Environment Statistics

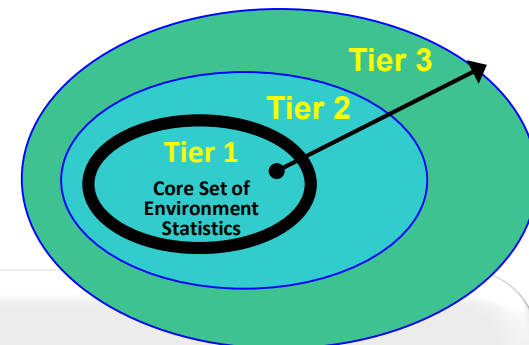


The **Basic Set of Environment Statistics** is:

- a **comprehensive**, but not exhaustive, set of statistics designed to support countries developing environment statistics programmes according to their national priorities for statistical development.
 - **flexible** enough to be adapted to individual countries' environmental concerns, priorities and resources.
- The **Basic Set** thus features a progression of three tiers, based on the level of **relevance, availability and methodological development** of the statistics, where **Tier 1** corresponds to the **Core Set of Environment Statistics**. As national priorities require and data availability and resources permit, the scope may be widened gradually to include the statistics in Tiers 2 and 3.



The Basic Set and its three tiers of statistics



The three tiers of statistics are defined as follows:

- Tier 1, corresponding to the Core Set of Environment Statistics, includes **100** statistics which are **of high priority and relevance to most countries** and have a **sound methodological foundation**. It is recommended that countries consider producing them in the **short-term**.
- Tier 2 includes **200** environment statistics which are of **priority and relevance to most countries** but require greater investment of time, resources or methodological development. It is recommended that countries consider producing them in the **medium-term**.
- Tier 3 includes **158** environment statistics which are either of **lower priority or require significant methodological development**. It is recommended that countries consider producing them in the **long-term**.



Do you remember what the components are?

Component 1: Environmental Conditions and Quality

Component 2: Environmental Resources and their Use

Component 3: Residuals

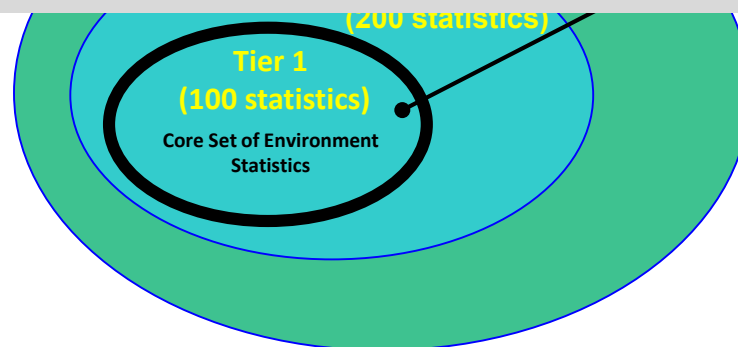
Component 4: Extreme Events and Disasters

Component 5: Human Settlements and Environmental Health

Component 6: Environmental Protection, Management and Engagement

Core Set or Tier 1 = 100 statistics

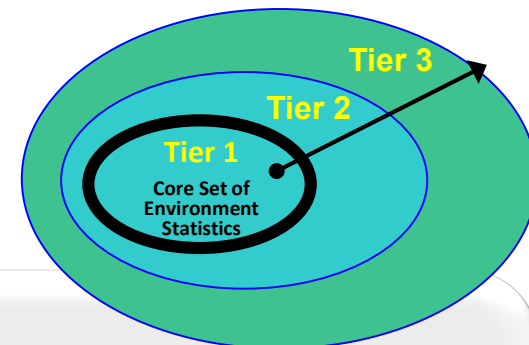
Basic Set = 458 statistics



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



From Basic Set to Core set

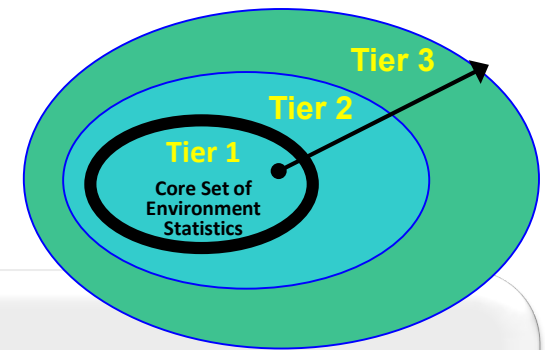


The main selection criteria for the Core Set of Environment Statistics (Tier 1) were relevance, measurability and methodological soundness, described further as follows:

- i. **Relevance:** Core statistics should meet the needs of the broad variety of users and be responsive to changes in the environment and related human activities;
- ii. **Measurability:** Core statistics should have sufficient supporting data and metadata readily available, be of accepted quality and be updated regularly, or it should be possible to compile them in the near term;
- iii. **Methodological soundness:** Core statistics should adhere to professional and scientific methods, as well as to internationally agreed concepts and definitions to the extent possible.



The Core Set of Environmental Statistics



- The Core Set represents a broad **consensus** of opinion on the pertinence and feasibility of these statistics.
- well suited to provide **guidance** in determining priorities for countries at **early stages of developing** environment statistics
- can also help to **identify data gaps** in established national environment statistics programmes and systems
- It incorporates the most pertinent statistics needed to report on global environmental conventions and **MEAs**



Core set statistics

- Temperature, precipitation, watersheds
- Coastal waters, coastlines, coastal areas
- Soil types, erosion, desertification
- Ecosystems and their extent, flora and fauna
- Protected areas, forest area, land cover types extent
- Air quality, freshwater quality, marine water quality

ing water source
 tion facility
 e collection
 treatment
 event and
 on
 prevalence,
 and
 (quality)
 f MEAs

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



The Basic Set is presented in the FDES structure, supplemented with additional guidance

Component 4: Extreme Events and Disasters					
Sub-component 4.1: Natural Extreme Events and Disasters					
Topic	Statistics and Related Information		Category of Measurement	Potential Aggregations and Scales	Methodological Guidance
	(Bold Text - Core Set/Tier 1; Regular Text - Tier 2; <i>Italicized Text - Tier 3</i>)				
Topic 4.1.1: Occurrence of natural extreme events and disasters	a.	Occurrence of natural extreme events and disasters		<ul style="list-style-type: none"> By event National Sub-national 	<ul style="list-style-type: none"> Centre for Research on the Epidemiology of Disasters Emergency Events Database (CRED EMDAT) UN Economic Commission for Latin America and the Caribbean (UNECLAC) Handbook for Estimating the Socio-economic and Environmental Effects of Disasters The United Nations Office for Disaster Risk Reduction (UNISDR)
		1. Type of natural extreme event and disaster (geophysical, meteorological, hydrological, climatological, biological)	Description		
		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		<ul style="list-style-type: none"> By event By ISIC economic activity National Sub-national By direct and indirect damage 	
		1. Number of people killed	Number		
		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		
	c.	Physical losses/damages due to natural extreme events and disasters (e.g., area and amount of crops, livestock, aquaculture, biomass)	Area, Description, Number		
	d.	Effects of natural extreme events and disasters on integrity of ecosystems		<ul style="list-style-type: none"> By event By ecosystem National Sub-national 	
		1. <i>Area affected by natural disasters</i>	Area		
		2. <i>Loss of vegetation cover</i>	Area		
		3. <i>Area of watershed affected</i>	Area		
		4. <i>Other</i>	Description		
e.	<i>External assistance received</i>	Currency	<ul style="list-style-type: none"> By event National 		

The complete Basic Set can be found at: <https://unstats.un.org/unsd/envstats/fdes/basicset.cshtml>



Thank you for your attention!

For more information please contact
the Environment Statistics Section
at the UN Statistics Division:
E-mail: envstats@un.org

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

