



## OVERVIEW

1. The "environment" encompasses all natural and human-made elements external to an individual, along with their interrelationships, which hold value for humanity, either now or in the future. Environmental concerns arise from the degradation of these elements, primarily due to human activities. The environment serves as the foundation for all life and economic development on Earth, and its health and sustainability are crucial for the well-being of present and future generations. As human actions continue to place growing pressure on natural resources, the need to monitor and understand environmental trends has become increasingly important to support informed decision-making.

2. In this context, environment statistics play a vital role in systematically capturing, analyzing, and presenting data related to various aspects of the environment. They comprise a set of data and information that describe the natural environment, its quality, and its interactions with human activities. These statistics provide critical evidence to assess the condition of the environment, identify emerging challenges, and support policy development aimed at achieving sustainable development goals.

3. The scope of environment statistics covers all dimensions of the environment, including land, water, air, biotic and abiotic components of the natural world, and the diverse concerns arising from human impacts. A country's geographic characteristics and the nature of its economic development largely influence the breadth and focus of its environment statistics. Accordingly, environment statistics describe: (i) the quality and availability of natural resources; (ii) human activities and natural events affecting the environment; (iii) the impacts of these activities and events; and (iv) societal responses to these impacts.

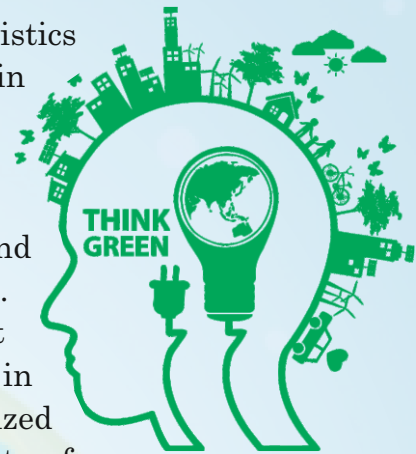
4. The primary objective of environment statistics is to deliver information on the environment, its changes over time and across different locations, and the key factors influencing these changes. Ultimately, environment statistics aim to enhance understanding of the environment, support evidence-based policymaking and decision-making, and provide valuable information for the general public as well as specific user groups. Overall, environment statistics play a critical role in assessing the state of the environment, evaluating environmental risks and impacts, and advancing the goals of sustainable development.

5. India has developed a well-established system for the collection and dissemination of





environment statistics. Since 2018, the National Statistics Office (NSO) has been publishing "EnviStats India" in alignment with the Framework for the Development of Environment Statistics (FDES) 2013. The data presented in the publication are compiled based on the data, sourced from various Ministries, Departments, Divisions, and Organizations of the Central and State Governments. Following the structure of framework for the Development of Environment Statistics (FDES) 2013, the tables in "EnviStats India 2025: Environment Statistics" are organized into six chapters, each corresponding to the components of FDES 2013. Related topics under each component have been grouped together to facilitate easier understanding and use.



6. India also participates in international initiatives aimed at developing and promoting environment statistics. For instance, India has adopted the System of Environmental-Economic Accounting (SEEA) framework and is working towards the development of environmental accounts based on this approach. Additionally, India is a member of the United Nations Environment Programme (UNEP) and regularly engages in international forums focused on environmental statistics and sustainable development.

7. To assess the availability of data for compiling environment statistics, identify indicators with multiple data sources, recommend measures for selecting appropriate indicators, address data gaps, and suggest ways to enhance the coverage and scope of the publication, an Expert Group on Environment Statistics was constituted on September 6, 2024. The Expert Group also provides guidance on expanding the publication's coverage and visibility, while offering technical support in key decision-making processes. Details of the Expert Group are provided in **Appendix-I**. The present edition i.e. 8th in the series has been developed based on the recommendations of the Expert Group, ensuring a more comprehensive, consistent, and insightful analysis of environment statistics.



## Framework for the Development of Environment Statistics

To ensure consistency in the environmental statistics compiled by different countries, the United Nations Statistical Division (UNSD) introduced a Framework for Development of Environment Statistics (FDES) in 1984. The updated FDES 2013 serves as a flexible, multi-purpose conceptual and statistical framework that is both comprehensive and integrative. It defines the scope of environment statistics and offers a structured approach to guide their collection and compilation at the national level. By incorporating data from a wide range of subject areas and sources, it provides a broad and holistic perspective, addressing key environmental issues relevant to policy analysis and decision-making, including cross-cutting concerns like climate change.

2. The main objective of the FDES is to guide the formulation of environment statistics programmes by (i) clearly defining the scope and components of environment statistics; (ii) helping to evaluate data needs, sources, availability, and existing gaps; (iii) guiding the development of multipurpose data collection processes and databases; and (iv) facilitating the coordination and organization of environment statistics, recognizing the involvement of multiple institutions in this field.

3. The FDES encompasses the biophysical environment, human factors that affect environmental quality, and the effects of environmental changes on humans. It addresses the interactions between the environment, human activities, and natural events. Central to the framework are changes in environmental conditions, which reflect the combined impacts of human actions and natural processes over time. While some environmental changes are gradual or unaffected by human influence, others respond more rapidly. Direct cause-effect links are often hard to establish due to the complex and cumulative nature of these influences.

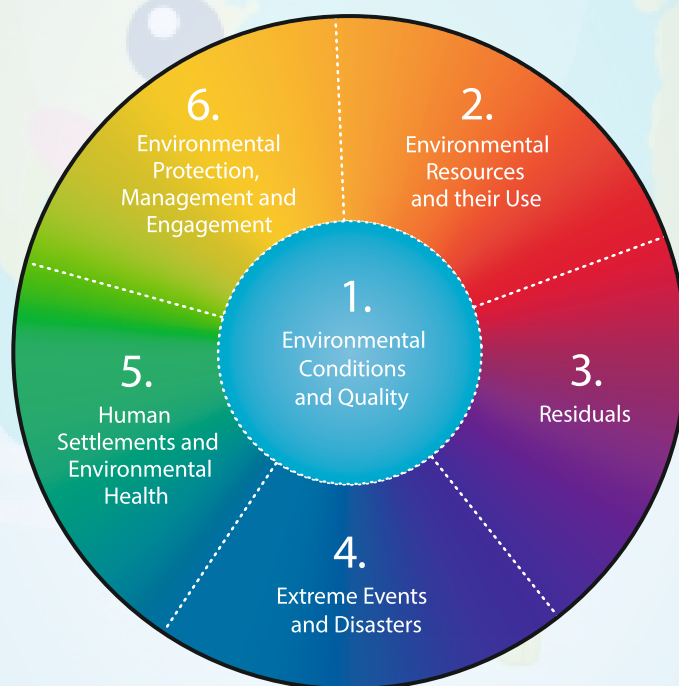
4. The FDES 2013 organizes environment statistics using a multi-level structure that includes components, subcomponents, statistical topics, and individual statistics. The first level of the structure consists of six fundamental components that follow the FDES conceptual framework. **Figure B.1** shows the six components of FDES 2013.

- **Component 1: Environmental Conditions and Quality** focuses on statistics concerning the state and quality of the natural environment, as well as how these conditions change over time. The Component 1 forms the core of the FDES, with the remaining five components structured around their connection to this central element.
- **Component 2: Environmental Resources and Their Use** encompasses statistics on the availability and utilization of environmental resources, such as ecosystem provisioning services, land, and subsoil resources.



- **Component 3: Residuals** covers statistics related to the use of regulating services of the environment for the discharge of residuals from production and consumption processes.
- **Component 4: Extreme Events and Disasters** includes statistics on the occurrence and impact of both natural and technological disasters.
- **Component 5: Human Settlements and Environmental Health** brings together statistics that link environmental factors with living conditions and public health in human settlements.
- **Component 6: Environmental Protection, Management and Engagement** focuses on statistics that reflect societal responses, including economic and policy measures, aimed at environmental protection and sustainable resource management.

**Figure B.1: Component of FDES**



*Source: FDES 2013, Department of Economic and Social Affairs, United Nations*

5. The FDES follows a multilevel framework. At the first level, it identifies six core components. Each of these components is further detailed into subcomponents at the second level and into statistical topics at the third level. These statistical topics capture the measurable dimensions of each component. Together, the components, subcomponents, statistical topics, and individual statistics outline the scope and limits of environment statistics. They serve as a structured framework for compiling and presenting data in a comprehensive, consistent, and coherent way. The final level consists of the specific individual environmental statistics. The main structure of the FDES (two-digit level) is presented in the **Table B.1:**



Table B.1 Components and Subcomponents of the FDES	
Component	Subcomponent
1.Environmental Conditions and Quality	1.1: Physical Conditions
	1.2: Land Cover, Ecosystems and Biodiversity
	1.3: Environmental Quality
2.Environmental Resources and their Use	2.1: Mineral Resources
	2.2: Energy Resources
	2.3: Land
	2.4: Soil Resources
	2.5: Biological Resources
	2.6: Water Resources
3. Residuals	3.1: Emissions to Air
	3.2: Generation and Management of Wastewater
	3.3: Generation and Management of Waste
	3.4: Release of Chemical Substances
4. Extreme Events and Disasters	4.1: Natural Extreme Events and Disasters
	4.2: Technological Disasters
5. Human Settlements and Environmental Health	5.1: Human Settlements
	5.2: Environmental Health
6. Environmental Protection, Management and Engagement	6.1. Environmental Protection and Resource Management Expenditure
	6.2: Environmental Governance and Regulation
	6.3 Extreme Event Preparedness and Disaster Management
	6.4: Environmental Information and Awareness

6. The FDES 2013 sets out a comprehensive (though not exhaustive) list of statistics (the Basic Set of Environment Statistics, **Appendix-II**) that can be used to measure the statistical topics related to environment and to develop national environment statistics programmes. This Basic Set of Environment Statistics is designed with enough flexibility to be adapted to individual countries' environmental concerns, priorities and resources and it follows a progression of three tiers:



- (a) Tier 1 is the Core Set of Environment Statistics with 100 indicators, which are of high priority and relevance to most countries and have a sound methodological foundation.
- (b) Tier 2 includes 200 environment statistics that are of priority and relevance to most countries but need more investment of time, resources or methodological development.
- (c) Tier 3 includes 158 environment statistics which are either of lower priority or require significant methodological development.

7. The Core Set of Environment Statistics (i.e. Tier 1) represents a broad consensus of opinion; as such, it is intended to foster collection, coordination and harmonization of environment statistics at the national, regional and global levels in the short-term. Consequently, depending on their priorities and resources, countries are encouraged to consider producing Tier 2 and Tier 3 statistics in the medium- and in the long-term respectively. The distribution of indicators of EnviStats India 2025: Environment Statistics vis-à-vis FDES 2013 is given in **Table B.2**.

**Table B.2: Distribution of Tier-wise Indicators of EnviStats India 2025: Environment Statistics vis-à-vis FDES 2013**

Level of Tier	FDES/Envi Stats 2025	Component 1	Component 2	Component 3	Component 4	Component 5	Component 6	Total
I	FDES 2013	32	30	19	4	12	3	100
	EnviStats 2025	25	25	10	4	11	1	76
II	FDES 2013	58	51	34	11	22	24	200
	EnviStats 2025	13	22	21	3	13	1	73
III	FDES 2013	51	43	5	16	20	23	158
	EnviStats 2025	1	5	0	0	4	2	12
Total	FDES 2013	141	124	58	31	54	50	458
	EnviStats 2025	39	52	31	7	28	4	161