

Uses of the Global Set of Climate Change Statistics and Indicators and updates on international climate change programmes



Twelfth Meeting of the Expert Group on Environment and Climate Change Statistics

(in-person and hybrid)

London, 23-25 September 2025



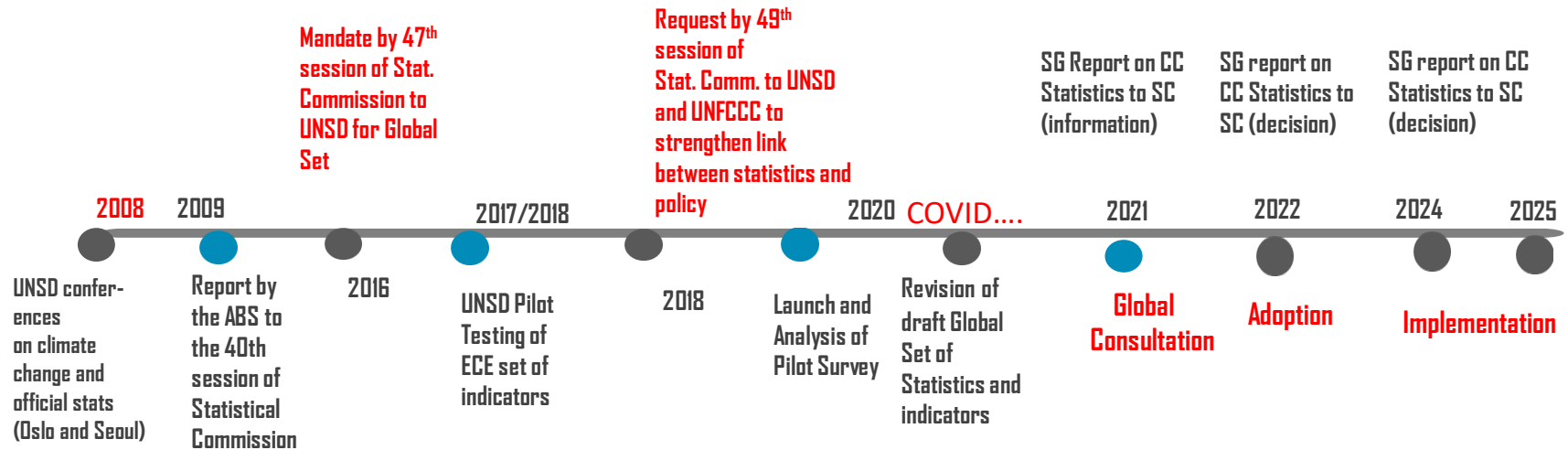
Outline

- Background and process
- Adoption and uses of the Global Set
- International climate programmes
- Examples of national applications
- Survey under development



Background and process:

Collaboration between UNSD, UNFCCC and the Expert Group on Environment and Climate Change Statistics



UNSD programme on climate change statistics supports countries with less developed statistical systems to start and advance work in this area, special attention to SIDS and least developed countries, guidance tailored to their needs.



Background and process:

Collaboration between UNSD, UNFCCC and the Expert Group on Environment and Climate Change Statistics

Decisions of the Statistical Commission:

- **Decision 47/112 (2016)**, UNSD requested to develop a global set of climate change statistics and indicators, applicable to countries at various stages of development: <http://unstats.un.org/unsd/statcom/47th-session/documents/Report-on-the-47th-session-of-the-statistical-commission-E.pdf>
- **Decision: 49/113 (2018)**, UNSD and UNFCCC to strengthen the link between statistics and policy: <https://unstats.un.org/unsd/statcom/49th-session/documents/Report-on-the-49th-session-E.pdf>
- **Decision 53/116 (2022)**, the Global Set was adopted at the 53rd session of the Statistical Commission: <https://unstats.un.org/unsd/statcom/53rd-session/documents/2022-41-FinalReport-E.pdf>
- **Decision 55/118 (2024)** focuses on implementation of the Global Set including investment in climate change statistics, use of administrative data, and including climate change questions in relevant censuses and surveys. : https://unstats.un.org/UNSDWebsite/statcom/session_55/documents/2024-36-FinalReport-E.pdf
- **Decision 56/124 (2025)** the Commission supported the restructuring of the expert group based on its expanded scope of work covering environment and climate change statistics: https://unstats.un.org/UNSDWebsite/statcom/session_56/documents/2025-37-FinalReport-E.pdf

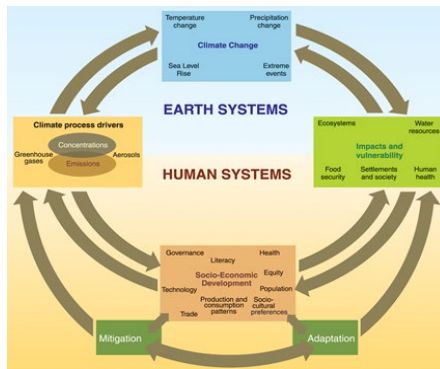
Global Set of Climate Change Statistics and Indicators

1. The Global Set was adopted at the 53rd session of the Statistical Commission ([Decision 53/116 \(2022\)](#))
2. Contains 158 indicators (and 190 statistics) which link policy targets (drivers, impacts, vulnerability, mitigation, adaptation) and statistical indicator frameworks across:
 - Paris Agreement
 - Sendai Framework
 - Sustainable Development Goals
3. The aim is to contribute to:
 - **independent** national policies evaluation
 - **comparable** reporting to UNFCCC
 - **advance** of climate change and environment statistics
4. The Global Set helps to define the scope and content of:
 - National programmes, countries use the Global Set to develop their own sets
 - Regional approaches, indicators were adapted/selected by ECLAC and ESCWA
5. Helps to frame and steer:
 - further methodology development in prioritized areas such as gender and health
 - capacity development by UNSD, UNEP, Regional Commissions, CARICOM, COMESA

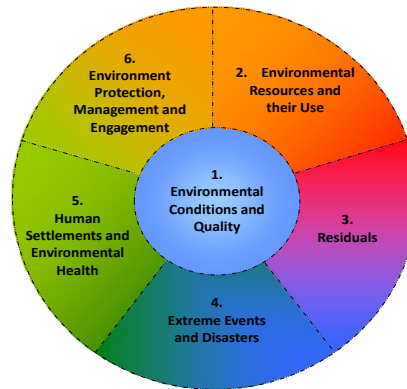


Methodological foundation

- Given that there was no underlying framework linking the reporting requirements stemming from the Paris Agreement and the necessary statistics or indicators to support climate policy action, UNSD worked closely with UNFCCC to develop such a framework explicitly for climate change.
- The Global Set, developed in close collaboration with UNFCCC, is structured according to the IPCC framework and FDES, with a tiering system as in the FDES and the SDG indicators.

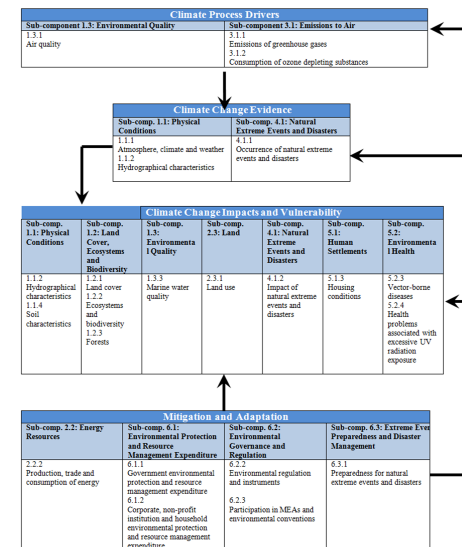


IPCC, 2007, Fourth Assessment Report



Framework for the Development of Environment Statistics (FDES 2013)

Relevant chapters of the Manual of the BSES
https://unstats.un.org/unsd/envstats/fdes/manual_bses.cshml



FDES cross-cutting application (Chapter 5) links climate change and environment statistics based on the IPCC Framework

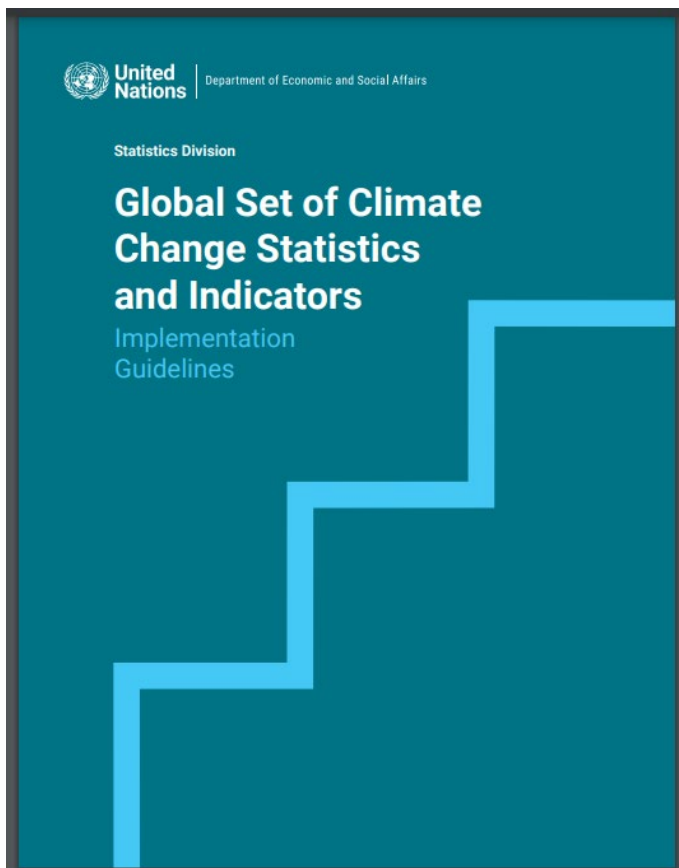


Connections with indicators from:

The Sendai Framework 2030 Agenda for Sustainable Development

- A** Mortality
- B** People affected
- C** Economic loss
- D** Critical infrastructure & services
- E** Disaster risk reduction strategies
- F** International cooperation
- G** Early warning and risk information





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Through support from the Development Account (DA14) project on Statistics and Data, and in collaboration with UNEP and all the regional commissions, the Implementation Guidelines are available in the following languages:

- [Arabic](#)
- [English](#)
- [Chinese](#)
- [French](#)
- [Russian](#)
- [Spanish](#)



Climate Change Statistics and Indicators Self-Assessment Tool (CISAT)

UNSD, in collaboration with the United Nations Framework Convention on Climate Change (UNFCCC) and the Expert Group on Environment Statistics (EGES), has developed the Climate Change Statistics and Indicators Self-Assessment Tool (CISAT) to support the implementation of the Global Set of Climate Change Statistics and Indicators. The CISAT gives United Nations Member States an opportunity to undertake a thorough and detailed assessment of the statistics and indicators in the Global Set which will allow the country to prioritize the nationally relevant indicators and statistics.

Introduction

Part I: Institutional Dimensions of Climate Change Statistics and Indicators

Part II: Statistics and Indicators Assessment

- Instructions for Part II
- Global Set of Climate Change Statistics and Indicators *
- Metadata *

* Each indicator in the Excel file is linked with its metadata in the Word file via hyperlinks. Both the Excel and the Word files need to be downloaded and saved in the same folder for this feature to work; also the name of the Word file should not be changed.



Global set, metadata [covers 26 fields]

36. Renewable freshwater resources per capita

Field	Description			
Indicator	Renewable freshwater resources per capita			
Statistics		Precipitation	Evapotranspiration	Inflow
Area	Impacts			
Topic	Freshwater resources			
Themes	Water resources			
Paris Agreement article	7; 13.8	7; 13.8	7; 13.8	7; 13.8
PAWP-Katowice	Decision 18/CMA.1, chapter IV; Decision 9/CMA.1	Decision 18/CMA.1, chapter IV; Decision 9/CMA.1	Decision 18/CMA.1, chapter IV; Decision 9/CMA.1	Decision 18/CMA.1, chapter IV; Decision 9/CMA.1
FDES		1.1.1.b	2.6.1.b.1	2.6.1.a.2 [similar to]
SDG				
Sendai Framework				
Tier	2	1	2	2
Definition	<p>The indicator measures the renewable freshwater resources divided by the population of the country.</p> <p>Renewable freshwater resources = Internal flow + Inflow of surface and groundwaters from neighbouring countries.</p> <p>Renewable freshwater (surface and groundwater) resources are replenished by precipitation (less evapotranspiration) falling over the territory of the country that ends up as runoff to rivers and recharge to aquifers (internal flow), and by surface waters and groundwater flowing in from</p>	<p>Total volume of atmospheric wet precipitation (rain, snow, hail, dew, etc.) falling on the territory of the country over one year, in millions of cubic metres.</p> <p>[UNSD/UNEP Questionnaire, https://unstats.un.org/unsd/en/vstats/Questionnaires/2020/q2020_Water_English.pdf]</p> <p>[FDES BSES manual, Water resources, p.11, https://unstats.un.org/unsd/en/vironment/FDES/MS%202.6%20Water%20Resources.pdf]</p>	<p>Actual evapotranspiration: Total actual volume of evaporation from the ground, wetlands and natural water bodies and transpiration of plants. According to the definition of this concept in Hydrology, the evapotranspiration generated by all human interventions is excluded, except unirrigated agriculture and forestry. The 'actual evapotranspiration' is calculated using different types of mathematical models, ranging from very simple algorithms (Budyko, Turn Pyke, etc.) to schemes that represent the hydrological cycle in detail.</p>	<p>Total volume of river run-off and groundwater generated over the period of a year, in natural conditions, exclusively by precipitation into a country. The internal flow is equal to precipitation less actual evapotranspiration and can be calculated or measured. If the river and groundwater generation are measured separately, transfers between surface and groundwater should be</p>



Climate change data and statistics in international programmes

From last two Newsletter contributions:

- **UNOSD** strengthens Member State capacities for evidence-based policy and data quality for Climate and Waste
- **Partnership in Statistics for Development in the 21st Century (PARIS21):** supports countries to build Climate Change Data Ecosystems (CCDE)
- **UNEP:** Enhancing Disaster Risk Reduction in Sub-Saharan Africa; Environment and climate statistics in various countries
- **FAO:** FAOSTAT agrifood systems emissions data; Temperature Change, Bioenergy, Land Use and Land Cover
- **DRR:** Strengthening Disaster-related Statistics
- **UN-Women:** Gender and Environment Statistics: available tools, data and uses
- **OECD:** 4th edition of the [Annual Climate Action Monitor](#). Developed by the International Programme for Action on Climate (IPAC); IPAC Climate Action [Dashboard](#)
- **EUROSTAT:** [climate change related statistics](#)
- **Pacific Community; ESCAP, ECE and ECLAC, CARICOM, European Environment Agency**



New national experiences shared via the EnvStats newsletter

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Vanuatu Launches First Land Accounts Using Big Data and Satellite Imagery	
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A satellite image of Nauru, 2002



New experiences shared via the Survey on Big Data

1	Armenia	16	Mexico
2	Brazil	17	Nepal
3	Cabo Verde	18	New Zealand
4	Cameroon	19	Norway
5	Canada	20	Palestine
6	Colombia	21	Peru
7	Dominican Republic	22	Poland
8	Germany	23	Republic of Korea
9	Ghana	24	Slovenia
10	Hungary	25	Spain
11	Indonesia	26	Suriname
12	Ireland	27	Switzerland
13	Japan	28	Tunisia
14	Jordan	29	United Arab Emirates
15	Mauritius	30	United Kingdom



United Nations Statistics Division

Review of climate change data collection via big data and novel data sources



Examples from work on climate questions

Annex 1. Climate Change Related Topics Covered by PHCs (2000-2025)

Africa

- Cameroon (2005) – Climate change impacts / disasters
- Djibouti (2024) – Climate change impacts / disasters
- Equatorial Guinea (2015) – Climate change impacts / disasters
- Mauritius (2022) – Climate change impacts / disasters
- Senegal (2023) – Climate change impacts / disasters
- South Africa (2022) – Climate change impacts / disasters
- Uganda (2024) – Climate change impacts / disasters
- United Republic of Tanzania (2022) – Climate change impacts / disasters

Americas

- Belize (2022) – Agriculture & environment

- Saint Vincent and the Grenadines (2023) – Climate change impacts / disasters
- Trinidad and Tobago (2025) – Climate change planning
- Uruguay (2023) – Disasters, Housing & settlements

Asia

- Nepal (2021) – Climate change impacts / disasters

Europe

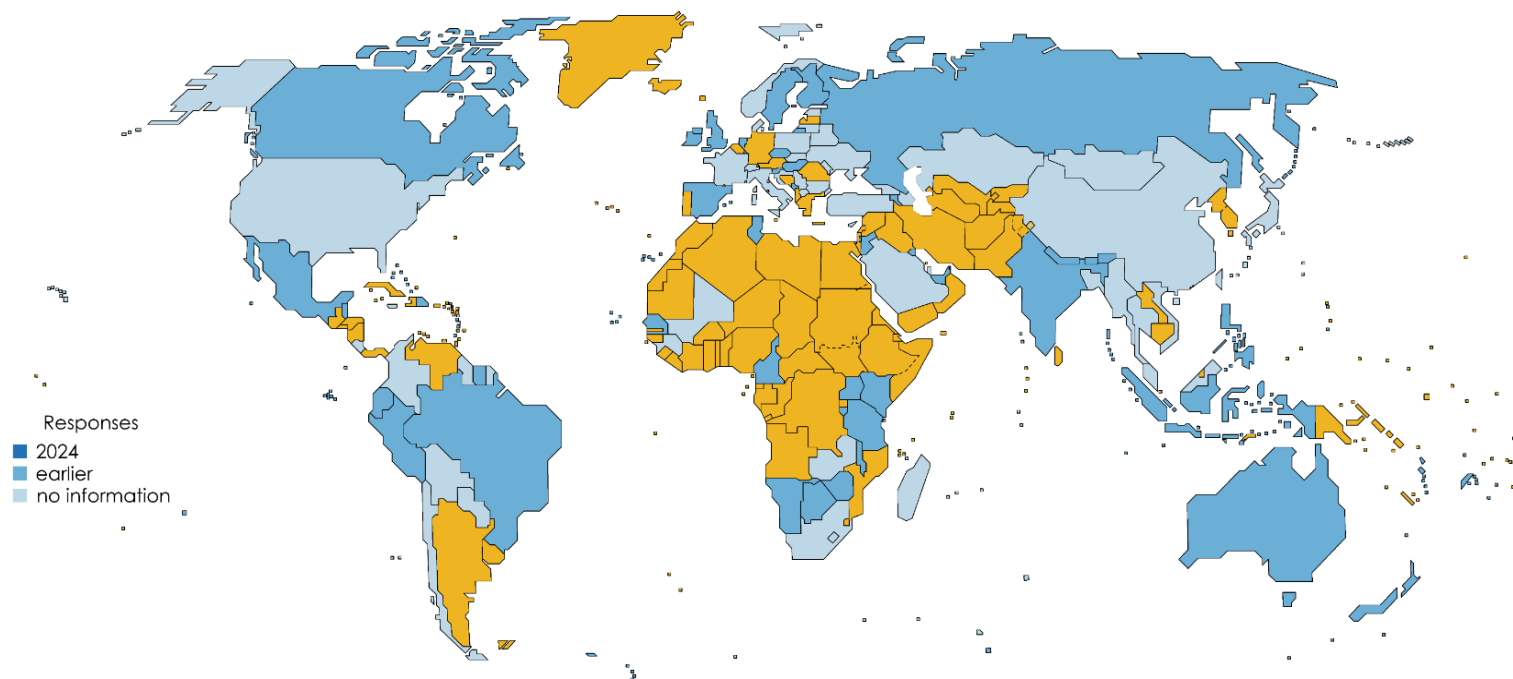
- Ireland (2022) – Energy use/access

Oceania

- Nauru (2021) – Climate change impacts / disasters
- Solomon Islands (2019) – Energy use/access
- Tokelau (2019) – Climate change impacts / disasters
- Vanuatu (2022) – Climate change impacts / disasters



Growing engagement of countries and responses to surveys in 2024 (98 out 215 countries and territories)



The boundaries shown and used on this map do not imply official endorsement or acceptance by the United Nations.



Conclusions and questions

- Implementation support was prioritised for countries, and is now available and translated, the Guidelines into the 6 UN languages and the CISAT into Spanish and French.
- Should we prioritise further translation and application/promotion work on the Guidelines and CISAT (there is another/deeper level of support to actual data collection)?
- National engagement in climate change statistics is wide and still growing, the survey on implementation will help to assess the status in conjunction with UNFCCC reporting outcomes



Thank you for your attention!

For more information please contact the Environment Statistics Section
at the United Nations Statistics Division:

E-mail: envstats@un.org

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

Climate Change Statistics Website

<https://unstats.un.org/unsd/envstats/climatechange.cshtml>

and

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

