

Global Set of Climate Change Statistics and Indicators



**Eighth Meeting of the Expert Group on Environment Statistics
New York, 12-21 October 2021 (virtual)**

Session 1: Climate Change Statistics and Indicators: Global Set

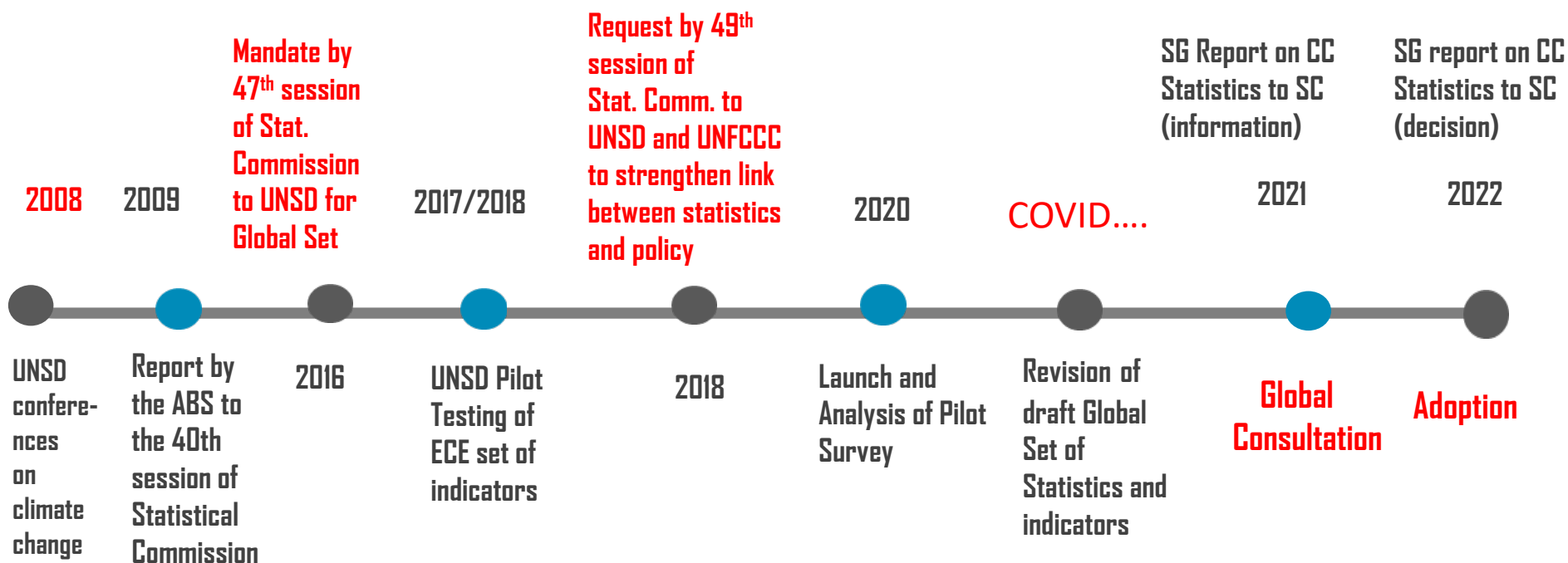


Outline

1. Background to UNSD Global Set of Climate Change Statistics and Indicators
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Background to UNSD work on development of Global Set of Climate Change Statistics and Indicators



More than a decade long process: 2008 - present



Report of the Secretary-General on Climate Change Statistics to the 47th session of the Statistical Commission in 2016

UNSD, in collaboration with UN-ECE, prepared the Report of the Secretary-General on Climate Change Statistics to the 47th session of the Statistical Commission (E/CN.3/2016/15) (New York, 8-10 March 2016).

http://unstats.un.org/unsd/environment/climatechange_docs_conf.html

Decision 47/112:

<http://unstats.un.org/unsd/statcom/47th-session/documents/Report-on-the-47th-session-of-the-statistical-commission-E.pdf>

Main decisions:

For countries: Use the FDES 2013 to guide the development of climate change statistics and indicators given the close interrelationship between environment statistics and climate change statistics.

For UNSD: Review and consider UN-ECE set of climate change-related statistics and indicators as a basis for **developing a global set of climate change statistics and indicators, applicable to countries at various stages of development.**



Report of the Secretary-General on Climate Change Statistics to the 49th session of the Statistical Commission in 2018

UNSD, in collaboration with UN-ECE and UNFCCC, prepared the Report of the Secretary-General on Climate Change Statistics to the 49th session of the Statistical Commission (E/CN.3/2018/14) (New York, 6-9 March 2018).

<https://unstats.un.org/unsd/statcom/49th-session/documents/2018-14-ClimateChange-E.pdf>

Decision: 49/113

<https://unstats.un.org/unsd/statcom/49th-session/documents/Report-on-the-49th-session-E.pdf>

Main decisions

For countries: (i) Participate in the Pilot Survey on Climate Change-related Statistics and Indicators currently being undertaken by UNSD, as well as in the planned Global Consultation on Climate Change Statistics and Indicators; (ii) Enhance collaboration between NSOs and national authorities responsible for reporting climate change related information to UNFCCC Secretariat;

For UNSD and UNFCCC: **Strengthen the link between statistics and policy**, for example, by: (i) undertaking joint initiatives in the development of climate change statistics and indicators; (ii) encouraging joint capacity building efforts and trainings with other partners, and exploring ways to encourage NSOs to be more involved in the preparation of data submissions to the UNFCCC secretariat, for supporting the implementation of the Paris Agreement.



Report of the Secretary-General on Climate Change Statistics to the 52nd session of the Statistical Commission in 2021 (information)

UNSD, in collaboration with UN-ECE and UNFCCC, prepared the Report of the Secretary-General on Climate Change Statistics to the 52nd session of the Statistical Commission (E/CN.3/2021/20) (New York, 1 to 3 and 5 March 2021).

<https://unstats.un.org/unsd/statcom/52nd-session/documents/2021-20-ClimateChange-E.pdf>

Agenda item 4(c)

Items for information: Climate change statistics

E/CN.3/2021/20

Report of the Secretary-General on climate change statistics

Arabic

Chinese

English

Español

Français

Russian



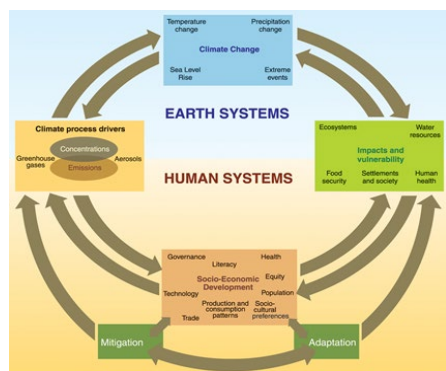
Collaboration between UNSD and UNFCCC to strengthen link between statistics and policy

- Joint reports on Climate Change Statistics to Statistical Commission
- Joint Side Events at the Statistical Commission
- UNFCCC participation in UNSD-led Expert Group on Env. Stats.
- UNSD participation in a Side Event at the High-Level Political Forum in July 2019 organized by UNFCCC, UNSD, etc.
- UNFCCC participation in UNSD organized regional workshops on environment (including climate change statistics) statistics [e.g., Arab region in 2018, CARICOM region in 2019]
- UNSD participation in UNFCCC stakeholders' dialogues on building the Enhanced Transparency Framework (2020)
- Online information sessions by UNSD/UNFCCC for the Global Consultation - support from Regional Commissions (June/July 2021)
- UNSD participation in 3 UNFCCC organized regional webinars on "Embedding climate reporting in national statistics" (Aug-Sep 2021)

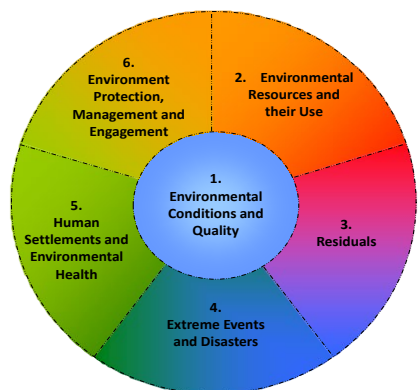


Global Set: Foundation

- 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 has been working closely with UNFCCC to develop such a framework explicitly for climate change.
- Global Set, being developed in close collaboration with UNFCCC, is structured according to the IPCC framework and FDES.
- Relevant articles of the Paris Agreement (PA) and the decisions under the PA Work Programme adopted in Katowice, as well as related SDG and Sendai Framework indicators, are also referenced to strengthen the link between statistics and policy.

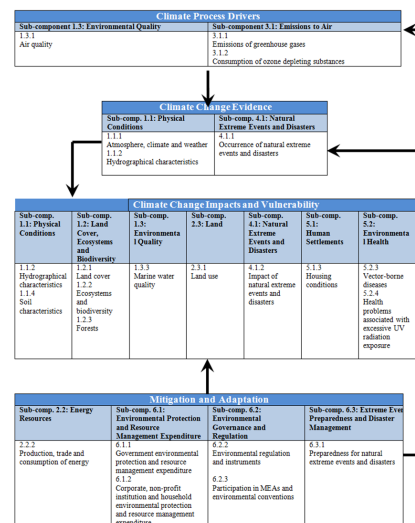


IPCC, 2007, Fourth Assessment Report



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



Goal 13



Global Set: Methodology

The Global Set is based on:

- systematic review of climate change statistics and indicators from 130 countries, with representative regional coverage, and identification of most commonly repeated statistics/indicators;
- discussions at several meetings of the UNSD-led Expert Group on Environment Statistics (EGES);
- bilateral consultations with specialized agencies and in-depth discussions with selected countries; and
- inputs from an extensive Pilot Survey that took place in 2020.

More information:

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

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



Global Set: Output

- The Global Set:
 - will provide a **comprehensive statistical framework with statistics, indicators and metadata**, designed to support countries in preparing their own sets of climate change statistics and indicators according to their individual concerns, priorities and resources.
 - will support the reporting requirements of countries under the Enhanced Transparency Framework and the Global Stocktake of the Paris Agreement, as well as climate-related SDG indicators.
 - will assist those countries embarking on the development of climate change statistics by providing the scope and coverage as to what may be considered climate change. It can also assist countries already involved in this area of statistics by providing a check list to see what may be already covered or added to national sets.
 - is flexible enough, with a tiering system, to be applied based on regions', as well as countries', priorities and data availability. It is recommended to promote complementarity among global, regional and national sets of climate indicators, to encourage harmonization across all levels.



Global Consultation on draft Global Set

Part I:

- **Institutional Dimension of Climate Change Statistics and Indicators** (in countries): aims at collecting general information on the institutional dimensions of climate change statistics through an online survey.
- **International Agency's Activities on Climate Change Statistics and Indicators**: aims at collecting general information on the main activities led by international Agencies (data collection, methodology development and capacity development), through an online survey.

Part II:

- **Draft Global Set of Climate Change Statistics and Indicators** (Excel file: *Part II_DraftGlobalSet.xls*) which allows respondents to provide comments on each individual indicator or statistic in the Excel file;
- **Metadata** (Word file: *Part II_Metadata.doc*) which allows respondents to provide detailed comments on the metadata in the Word file.

35 ECE: Armenia, Azerbaijan, Belarus, Bulgaria, Canada, Croatia, Cyprus, Denmark, Estonia, Finland, France, Georgia, Hungary, Ireland, Italy, Kazakhstan, Lithuania, Luxembourg, North Macedonia, Moldova, Montenegro, Netherlands, Norway, Poland, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, Ukraine, USA.

14 ESCAP: Australia, Bangladesh, Bhutan, China, India, Indonesia, Japan, Malaysia, Mongolia, Myanmar, Nepal, Philippines, Thailand, Vietnam.

14 ECA: Botswana, Burundi, Cabo Verde, Guinea, Côte d'Ivoire, Kenya, Madagascar, Mali, Mauritius, Senegal, South Africa, Tanzania, Zambia, Zimbabwe.

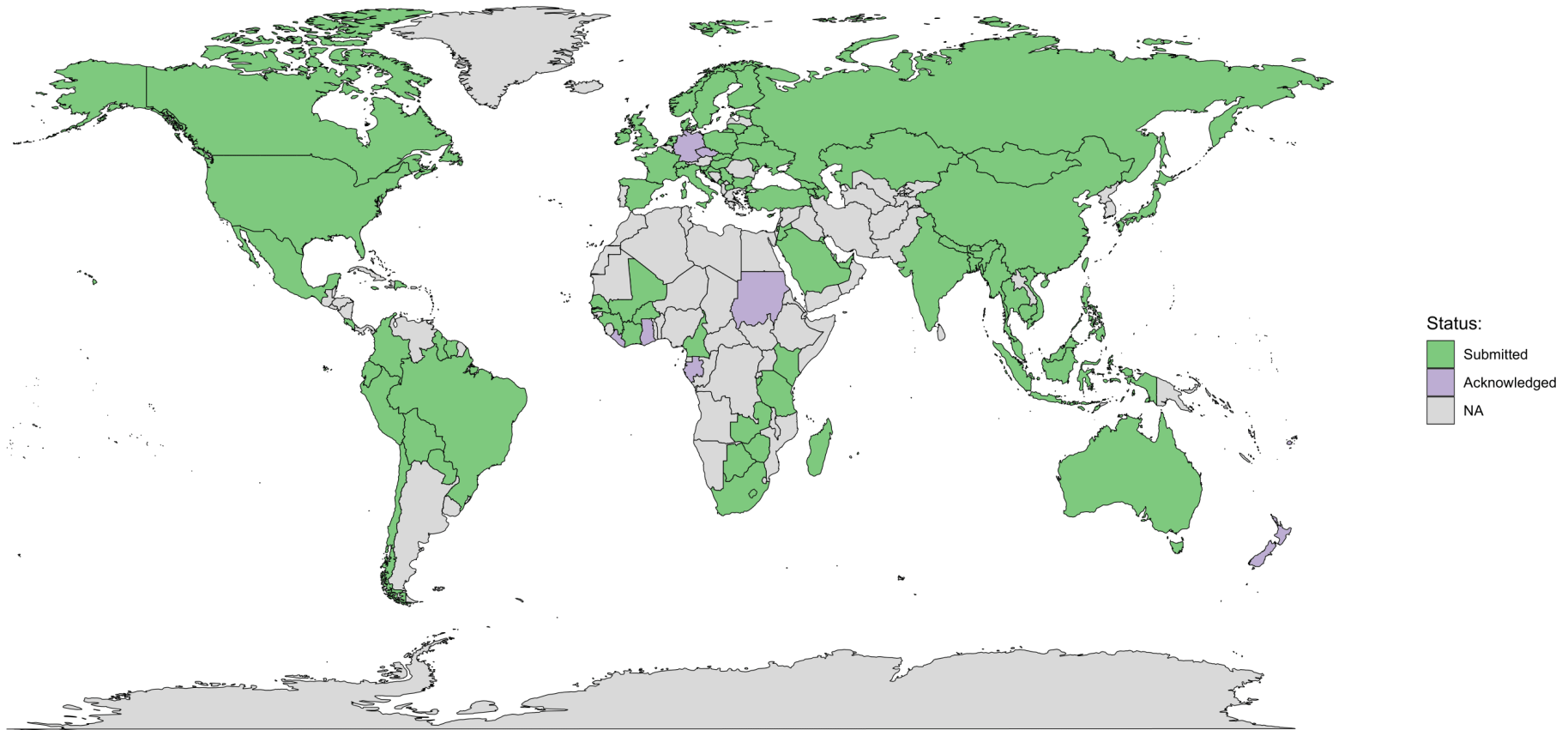
6 ESCWA: Jordan, Kuwait, Qatar, Saudi Arabia, State of Palestine, United Arab Emirates

16 ECLAC: Bermuda, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Grenada, Guyana, Jamaica, Mexico, Paraguay, Peru, Saint Lucia, Suriname.

25 agencies: EEA, Eurostat, CARICOM, IPCC, GCC-STAT, IEA, IMF, IOM, ESCAP, ECLAC, ECA, ECE, ESCWA, FAO, OECD, UNCTAD, UNESCO, UNEP, UNEP-WCMC, UNU, UN-HABITAT, UNFCCC, UNODC, UNSD – Energy Statistics Section, UN-Women



Responses from the Global Consultation



- 85 member states have **submitted** Part 1 and/or 2.
 - 72 Part 1, 74 Part 2.
- 14 member states **acknowledged**.
- 25 agencies also submitted.

"Acknowledged" means that the national statistical offices of the countries (to whom we sent out the invitations to participate) communicated with us regarding the Global Consultation after we sent out our invitation, but that they did not submit a response.



Global Consultation: overall summary

- Countries recognized the importance of the Global Set, its relevance to their national statistical and climate change systems, and its potential to serve as a keystone for further climate related data development.
- Invaluable inputs were received from countries with regard to assessing the relevance, methodological soundness and data availability for the 134 indicators and 194 underlying statistics contained in the Global Set.
- Based on these results all indicators and statistics are expected to remain in the list demonstrating its overall robustness.
- Countries and agencies provided comments on the indicators and the metadata, including its structure.
- Very few countries and agencies proposed new indicators, while there were some suggestions for modification of existing indicators, especially those at Tier 3.
- **More details will be presented covering Parts 1 and 2 separately.**



Global Consultation: general comments

- **Number of indicators currently in the Global Set**
 - UNSD had many discussions at the annual EGES meetings, Pilot Surveys (2017/2018 and 2020), expert reviews, online information sessions (2021) etc., and it was felt that the list should be kept manageable, but there was never any magic number.
 - given that the Global Set is intended to be applicable to all countries, it is expected that not all indicators will apply to every single country. Prioritization is proposed via the tiering approach based on relevance, methodological soundness and data availability. Countries may prepare their own sets according to their individual concerns, priorities and resources, and may add any number of national indicators as they wish.
 - the Global Set, as with most global indicator processes such as the SDG indicator framework, will be revisited at an appropriate time for review (maybe 3-5 years). In particular, Tier 3 indicators, which as for the SDG indicators, will undergo a review as while it is clear for these cases that the topic or proposed indicator (even if not formulated very precisely) is relevant, UNSD also knows that more work needs to be done.



Global Consultation: general comments

- **Relationship between the Global Set and the CES set of climate change-related indicators**
 - the Global Set and the CES indicator set are complementary. The Global Set is tailored for all countries while ensuring that the needs of countries with less developed statistical systems are taken into account.
 - the CES set focuses on the areas of climate change that are considered highly relevant for the CES member countries and is based on the SEEA to the extent possible. Both indicator sets provide guidance for NSOs to implement national indicator sets in an internationally comparable way. Countries are welcome to choose those indicators that are considered relevant in their context, may combine indicators from both sets, and add some national indicators.
 - the Global Set also contains indicators that can be derived from the SEEA that are not included in the CES indicator set, e.g. indicator 102 (GHG removals (Carbon sequestration) by ecosystems). Furthermore, there are several indicators/statistics in the Global Set that are not contained in the CES set, e.g. sea level rise or those related to coasts, that could be relevant to CES member countries. Countries may therefore find it useful to draw upon such indicators/statistics from the Global Set for national purposes.
 - most of the CES indicators are either directly included or included in a form which is very similar. For those indicators that were considered similar the differences were purely semantic so appropriate referencing will be added. UNSD and ECE are also collaborating on some of the Tier 3 indicators and the placeholders in the CES set, in order to maximize harmonization between the two sets.



Global Consultation: general comments

- **Relationship between the Global Set and other indicator initiatives**
 - there are also other processes in developing climate change indicators. For example, there is the OECD IPAC initiative and the IMF climate dashboard. Such initiatives serve specific purpose for these institutions which UNSD fully supports. UNSD is working closely with these institutions, who have provided very valuable comments/inputs to the Global Set on alignment and cross-referencing among the various initiatives. Part 1 of the Global Consultation (agencies) has more details.
 - given that the Global Set is flexible enough, with a tiering system, to be applied based on regions', as well as countries', priorities and data availability it is recommended to promote complementarity among global, regional and national sets of climate indicators, to encourage harmonization across all levels.
 - for enhanced international comparability longer-term processes are needed, including identification of the reporting requirements under the Enhanced Transparency Framework and the Global Stocktake of the Paris Agreement, to which this Global Set will contribute. Further discussions are taking place on this matter with UNFCCC to ensure that countries understand the linkages between the Global Set and these processes in the implementation of the Paris Agreement.



Planned actions of UNSD

- Update Global Set and related metadata for submission to the 53rd session of the Statistical Commission, in March 2022, for adoption (Secretary-General report and Background Report), subject to a review after 3-5 years.
- Provide continuous support to countries to carry on activities beyond the Global Consultation, including capacity development/information sessions on climate change statistics, in collaboration with UN regional commissions and other partners.
- Develop training materials and implementation guidelines/strategy for capacity development based on information received via the Global Consultation after the adoption of the Global Set.
- Further explore ways, in collaboration with UNFCCC, to strengthen the relationship between NSOs and national authorities reporting climate change information.



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

