

Draft Global Set of Climate Change Statistics and Indicators

Result of the Global Consultation - Part 1: Agencies



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



General remarks on Part 1

25 agencies responded to UNSD's Global Consultation on the draft Global Set of Climate Change Statistics and Indicators, of which, 21 provided a response to Part I.

- Caribbean Community (CARICOM)
- Economic Commission for Latin America and the Caribbean (ECLAC)
- European Environmental Agency (EEA)
- Eurostat
- Food and Agriculture Organization of the United Nations (FAO)
- Gulf Cooperation Council (GCC)
- Intergovernmental Panel on Climate Change (IPCC)
- International Energy Agency (IEA)
- International Monetary Fund (IMF)
- International Organization for Migration (IOM)
- Organisation for Economic Cooperation and Development (OECD)
- United Nations Conference on Trade and Development (UNCTAD)
- UN WOMEN
- United Nations Economic Commission for Europe (UNECE)
- United Nations Economic Commission for Europe (UNECE) – Transport
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Environment Programme
- United Nations Office on Drugs and Crime (UNODC)
- UNSD – Energy
- United Nations University (UNU)
- World Bank



General remarks on Part A– Data Collection and Production

Does your Agency collect any climate change related data directly from countries?

“Yes” answers provided by:

- Caribbean Community (CARICOM)
- European Environmental Agency (EEA)
- Eurostat
- Food and Agriculture Organization of the United Nations (FAO)
- Gulf Cooperation Council (GCC)
- International Energy Agency (IEA)
- International Monetary Fund (IMF)
- International Organization for Migration (IOM)
- Organisation for Economic Cooperation and Development (OECD)
- UN WOMEN
- United Nations Economic Commission for Europe (UNECE) – Transport
- United Nations Office on Drugs and Crime (UNODC)
- UNSD – Energy
- UNU
- World Bank



General remarks on Part A– Data Collection and Production

Climate change related data collected directly from countries

- Air Emissions & Air quality
- Areas impacted by climate change
- Biodiversity sectors
- Buildings and infrastructure vulnerable to climate change
- Climate change adaptation policies, strategies and plan
- Climate change and human health
- Climate change evidence
- Climate change impacts on transport and tourism
- Climate change mitigation policies, strategies and plans
- Climate change mitigation technology and practice
- Climate refugees, migrant and displaced persons by climate change associated disasters
- Distribution and status of ecosystems
- Energy: production, supply, consumption, Renewable energy, efficiency
- Environmental taxes, Government expenditure on environmental protection, Green bonds
- Food security and agriculture
- Hazardous events and disasters
- Impact of natural extreme events and disasters (on women/men, their livelihoods, their resources, etc)
- Land and agriculture
- Population
- Total greenhouse gas (GHG) emissions
- Transport; Vehicle fleet information, and transport volumes by mode
- Vulnerable population
- Waste

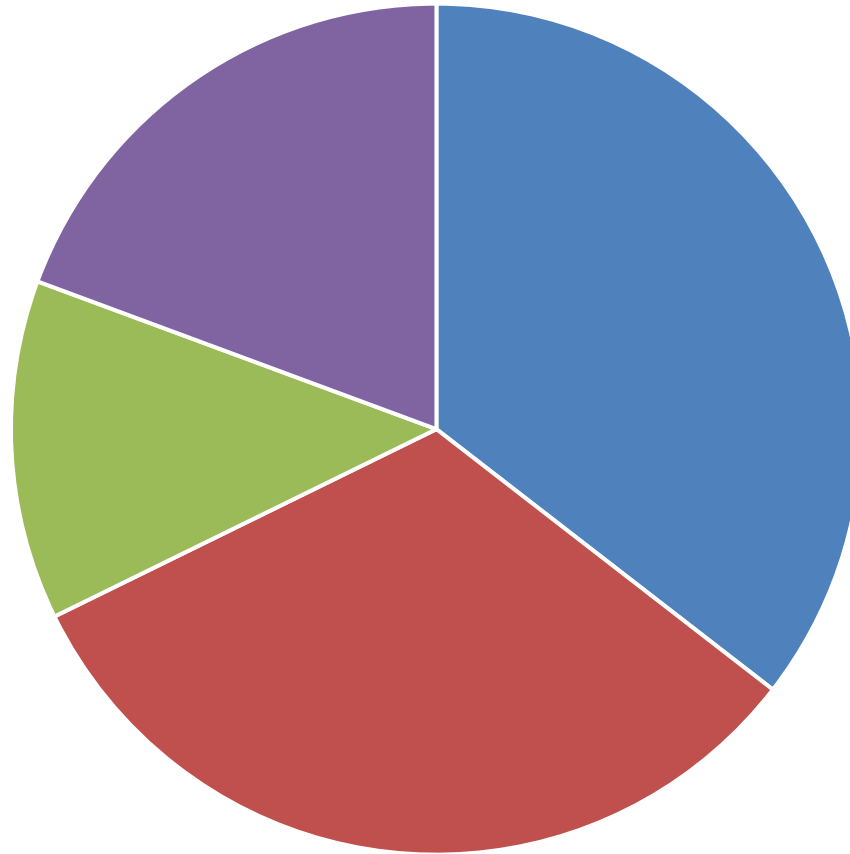


General remarks on Part A– Data Collection and Production

What are the main sources for the climate change related data that your Agency collects directly from countries?

Other includes:

- Central banks
- Financial sector
- Private vendors
- National Oceanographic Data Centers and Associated Data Units
- Climate assessments and reports



■ NSO (11)

■ Line Ministry (10)

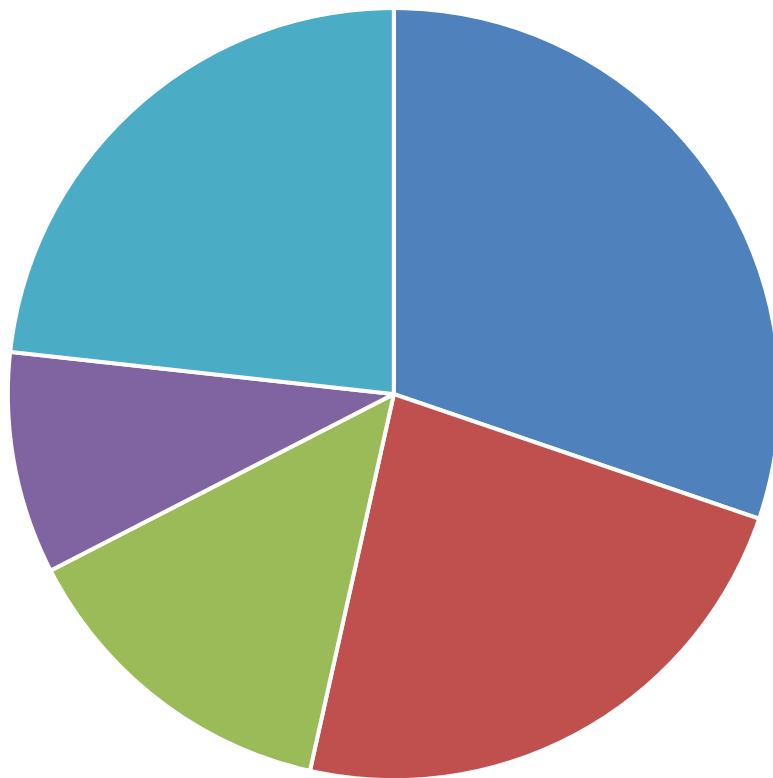
■ Meteorological Office (4)

■ Other (6)



General remarks on Part A – Data Collection and Production

Climate change related data produced



■ Secondary data (13)

■ Estimated country data (10)

■ Modelled (6)

■ Big data (4)

■ Other (10)

- Data produced from remote sensing and Earth Observation data
- Data collected directly from countries through our questionnaires
- Administrative data on environmental crime offenses- environmental pollution or degradation
- Climate Change Knowledge Portal (CCKP) includes climate indicators derived from CMIP global climate model



General remarks on Part A– Data Collection and Production

What is the data quality control/validation process for the climate change data your Agency collects, produces or disseminates?

- Application of a statistics quality assurance framework (FAO)
- Via two independent processes then validated by a statistician and an expert in the substantive area (UNCTAD)
- Validated internally and re-sent to focal points in NSOs (CARICOM)
- Per quality assurance and control of EU regulations (EEA)
- Iterations with data providers, consultation with subject matter experts (IEA)
- Use of an editorial board; documentation (accessibility to technical references) (IPCC)



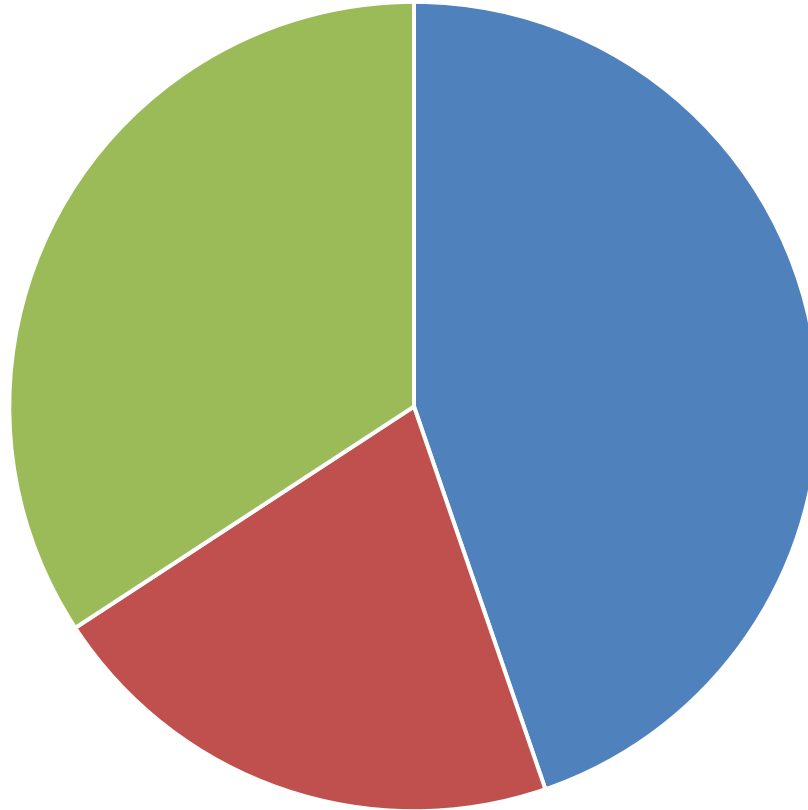
General remarks on Part A– Data Collection and Production

What are the main challenges that your Agency observes or foresees when it comes to climate change data that are collected, produced and/or disseminated?

- Lack of resources, lack of coordination among NSO and agencies
- Absence of dedicated staff in NSOs working on climate change
- Difficult to obtain data on mitigation and adaptation
- Ensuring consistency across international statistical standards
- Promoting use of climate-related data toward policy-makers
- Data availability at country level
- Data access and confidentiality
- Mining data from relevant publications is labour-intensive; web-scraping, etc.
- Comparability across countries
- Use of multiple sources leading to duplications and inconsistencies
- Different definitions across sources



General remarks on Part B – Methodology



- Produces or maintains a list of indicator/statistics that pertain to climate change, or some related topics/themes in the Draft Global Set (17)
- Convenes an inter-agency technical/expert working group to engage in climate change statistics and indicators (8)
- Develops methodological guidelines for climate change statistics or indicators (13)



General remarks on Part B– Methodology

Does your Agency produce or maintain a list of indicator/statistics that pertain to climate change, or some related topics (35 topics in the Draft Global Set) / themes (47 themes in the Draft Global Set)?

- **ECLAC:** GHG emissions, GHG concentration, Energy, Fossil fuels, Population, Transport, Forests, Agriculture, Urban areas, Snow and ice, Water resources, Sea and coasts, Water quality, Disasters, Health, Air quality, Temperature, Soil, Species, Ecosystems, Fisheries, Food, Infrastructure, Energy, Electricity, Waste, Sanitation, Poverty, Indigenous population, Disability, Governance, Expenditures, Taxes, Funding, Prices, Technology, Education, Land, Protected areas, Biodiversity, Meteorology, Water.
- **European Environmental Agency:** Many themes within Drivers, Impacts, Vulnerability, Mitigation and Adaptation (all catalogued).
- **EUROSTAT** publishes statistics related to climate change within the climate change database (Database - Climate change - Eurostat (europa.eu)). These statistics are classified according to: Greenhouse gas emissions, Drivers (Energy, Transport, Industrial Processes and product use, Waste, Agriculture, and Land use, land use change and forestry), Mitigation, Impact and Adaptation, and Climate action initiatives. The classification is quite close to the Area classification of the Draft Global Set.
- **FAO:** Climate change adaptation indicators, Temperature change statistics, Emissions Shares, by sector, Emissions intensities.
- **IEA:** Energy indicators (common to Draft Global Set), global emissions indicators (from energy sector, all gases), global number of vehicle 13 (selected countries), temperature and precipitation by countries.
- **IOM:** disaster displacement, migration, and movement of pastoralists, Migration, Environment and Climate Change country profiles, Migration Governance Indicators
- **OECD:** Housed in a climate repository and per forthcoming IPAC platform.
- **UN-WOMEN:** Gender-environment indicators.
- **UNECE:** CES Set of Core Climate Change-related Indicators and Statistics Using the SEEA.
- **UNEP:** Fossil fuels, Water quality, National Integrated Coastal Zone Management (ICZM), Climate change public awareness and education.
- **World Bank:** Country Climate and Development Report, World Development Indicators tagged as “Climate Change ”



General remarks on Part B– Methodology

Does your Agency develop methodological guidelines for climate change statistics or indicators?

- **CARICOM:** “Methodology document was prepared for Environment Statistics which includes climate change statistics or indicators. Generally, however, these are based on international methodological frameworks such as the FDES.”
- **Eurostat:** Extensive methodological references available at: <https://ec.europa.eu/eurostat/web/environment/methodology>
- **FAO:** A range of links to methodologies related to AQUASTAT, agriculture, animal populations and livestock units, GHG emissions, SDG metadata, integrated coastal area management, soils, forests and SEEA ecosystem accounting.
- **IEA:** Links to energy efficiency indicators and International Recommendations on Energy Statistics provided.
- **IPCC:** reference to The Task Force on National Greenhouse Gas Inventories (TFI) which, “develops and refines an internationally-agreed methodology and software for the calculation and reporting of national GHG emissions and removals and encourages the use of this methodology by countries participating in the IPCC and by signatories of the UNFCCC”
- **OECD:** Links provided: patents (http://stats.oecd.org/Index.aspx?DataSetCode=PAT_DEV); and Production- and Demand-based CO2 emissions from the OECD dataset on Carbon Dioxide Embodied in International Trade (<https://www.oecd.org/sti/ind/carbondioxideemissionsembodiedininternationaltrade.htm>)
- **UN-WOMEN:** A compendium of metadata, a model questionnaire and an enumerator’s manual under development (for release in October 2021) for the gender-environment survey.
- **UNECE:** CES Recommendations on climate change- related statistics on how to improve the usefulness of existing official statistics for climate analyses and greenhouse gas (GHG) inventories endorsed by the Conference of European Statisticians in 2014: <https://unece.org/statistics/publications/recommendations-climate-change-related-statistics>



General remarks on Part B– Methodology

Does your Agency convene an inter-agency technical/expert working group to engage in climate change statistics and indicators?

- **CARICOM:** Technical Working Group for Environment Statistics
- **EUROSTAT:** Inter-agency task team to develop quarterly estimates of greenhouse gas emissions by country (participation with other organisations, namely IMF, OECD, IEA, UNSD). Climate change related matters are also discussed in the working group Environmental accounts and working group Monetary environmental statistics and accounts
- **FAO's** Interdepartmental Working Group on Statistics.
- **IMF:** bilateral meetings with OECD, World Bank, BIS and FSB.
- **IOM:** Platform on Disaster Displacement
- **OECD:** Technical Expert Group of the IPAC
- **UNECE:** Expert Forum for Producers and Users of Climate Change Related Statistics
- **UNECE - Transport:** Working Party on Transport Statistics



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.cshhtml>

