

SDG indicator metadata

(Harmonized metadata template - format version 1.1)

0. Indicator information (SDG_INDICATOR_INFO)

0.a. Goal (SDG_GOAL)

Goal 13: Take urgent action to combat climate change and its impacts

0.b. Target (SDG_TARGET)

Target 13.2: Integrate climate change measures into national policies, strategies and planning

0.c. Indicator (SDG_INDICATOR)

Indicator 13.2.2: Total greenhouse gas emissions per year

0.d. Series (SDG_SERIES_DESCR)

EN_ATM_GHGT_WLU - Total greenhouse gas emissions with LULUCF (Mt CO₂ equivalent) [13.2.2]

EN_ATM_GHGT_WOLU - Total greenhouse gas emissions without LULUCF (Mt CO₂ equivalent) [13.2.2]

0.e. Metadata update (META_LAST_UPDATE)

2025-12-12

0.f. Related indicators (SDG_RELATED_INDICATORS)

Not applicable

0.g. International organisations(s) responsible for global monitoring

(SDG_CUSTODIAN_AGENCIES)

United Nations Framework Convention on Climate Change (UNFCCC Secretariat)

1. Data reporter (CONTACT)

1.a. Organisation (CONTACT_ORGANISATION)

United Nations Framework Convention on Climate Change (UNFCCC Secretariat)

2. Definition, concepts, and classifications (IND_DEF_CON_CLASS)

2.a. Definition and concepts (STAT_CONC_DEF)

Definition, rationale and concepts:

The ultimate objective of the Climate Change Convention (UNFCCC) is to achieve the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Estimating the levels of greenhouse gas (GHG) emissions and removals is an important element of the efforts to achieve this objective.

A comprehensive measurement, reporting and verification (MRV) system was developed for the periodic submission of countries' relevant climate information and data. Under the Convention and its Kyoto Protocol, Parties are required to regularly provide climate information and data through the submission of specific transparency reports.

The Paris Agreement adopted in 2015 marks the latest step in the evolution of the UN climate change regime and builds on the work undertaken under the Convention. Its central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature

increase even further to 1.5 degrees Celsius. The Agreement also aims to strengthen the ability of countries to deal with the impacts of climate change.

With the adoption of the Paris Agreement, the MRV system is being replaced by the new Enhanced Transparency Framework (ETF), which has become operational with the submission of the first biennial transparency reports (BTRs) by the end of 2024. The BTRs are submitted every two years and include information on GHG emissions, policies and measures, progress towards targets, climate change impacts and adaptation, levels of support and capacity-building needs. Information in the BTR on the national GHG inventory, shall be made in accordance with the “ Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement”(MPGs) (decision 18/CMA.1) and the common reporting tables (CRT) adopted in 2021 (decision 5/CMA.3).

2.b. Unit of measure (UNIT_MEASURE)

Megatonne (JMt) of CO₂-equivalent

2.c. Classifications (CLASS_SYSTEM)

Not applicable

3. Data source type and data collection method (SRC_TYPE_COLL_METHOD)

3.a. Data sources (SOURCE_TYPE)

- Biennial transparency report(BTR) submissions from all Parties
- Common reporting tables (CRT) from all Parties

3.b. Data collection method (COLL_METHOD)

- BTRs and CRTs are currently submitted via email. Once the development of the submission portal is completed, the submission process will be more automated. The secretariat made available the ETF reporting tools to Parties in June 2024 which facilitate the reporting of the CRTs. Information are imported into the UNFCCC Climate Data Hub.

3.c. Data collection calendar (FREQ_COLL)

See above

3.d. Data release calendar (REL_CAL_POLICY)

The BTRs, and associated CRTs, are submitted every two years.

3.e. Data providers (DATA_SOURCE)

Parties to the UNFCCC

3.f. Data compilers (COMPILING_ORG)

United Nations Framework Convention on Climate Change (UNFCCC secretariat)

3.g. Institutional mandate (INST_MANDATE)

- Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement (decision 18/CMA.1) – <https://unfccc.int/documents/193408>
- Guidance for operationalizing the modalities, procedures and guidelines for the enhanced transparency framework referred to in Article 13 of the Paris Agreement (decision 5/CMA.3) – https://unfccc.int/sites/default/files/resource/CMA2021_L10a2E.pdf?download

4. Other methodological considerations (OTHER_METHOD)

4.a. Rationale (RATIONALE)

See 2a.

4.b. Comment and limitations (REC_USE_LIM)

Data is limited to Parties that submit their BTRs and CRTs. As the MPGs accord flexibility provisions to developing country Parties in terms of scope and level of detail of reporting, information for these Parties may not be as comprehensive as for developed country Parties.

4.c. Method of computation (DATA_COMP)

Total GHG emissions are calculated as the sum of emissions of seven GHGs: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃), measured in units of CO₂-equivalent, by using a common weighting factor, the so-called Global Warming Potentials (GWP). In accordance with the latest reporting guidelines, the GWP values to be used are those for the 100-year time horizon listed in Table 8.A.1 of the IPCC Fifth Assessment Report (https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf).

4.d. Validation (DATA_VALIDATION)

Not applicable

4.e. Adjustments (ADJUSTMENT)

Not applicable

4.f. Treatment of missing values (i) at country level and (ii) at regional level

(IMPUTATION)

- **At country level**

Availability of data depends only on what is received from Parties.

- **At regional and global levels**

Not applicable

4.g. Regional aggregations (REG_AGG)

Not applicable

4.h. Methods and guidance available to countries for the compilation of the data at the national level (DOC_METHOD)

- Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement (decision 18/CMA.1) – <https://unfccc.int/documents/193408>
- Guidance for operationalizing the modalities, procedures and guidelines for the enhanced transparency framework referred to in Article 13 of the Paris Agreement (decision 5/CMA.3) – <https://unfccc.int/documents/460951>
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories – <https://www.ipcc-nggip.iges.or.jp/public/2006gl/>
- 2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands – <https://www.ipcc.ch/publication/2013-supplement-to-the-2006-ipcc-guidelines-for-national-greenhouse-gas-inventories-wetlands/>

4.i. Quality management (QUALITY_MGMNT)

Not applicable

4.j Quality assurance (QUALITY_ASSURE)

Not applicable

4.k Quality assessment (QUALITY_ASSMNT)

Not applicable

5. Data availability and disaggregation (COVERAGE)

Data availability:

Based on the BTRs and CRTs submitted to the UNFCCC secretariat, total greenhouse gas (GHG) emissions with and without LULUCF in Gt CO₂ eq for the reported years in the period from 1990 until two years prior to the submission year.

Time series:

Data for developed country Parties are available from 1990 up to two years before the inventory is due. Data available for developing country Parties are usually only for selected years.

Disaggregation:

n/a

6. Comparability / deviation from international standards (COMPARABILITY)

Sources of discrepancies:

Not applicable

7. References and Documentation (OTHER_DOC)

- [Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement](#)
[Guidance for operationalizing the modalities, procedures and guidelines for the enhanced transparency framework referred to in Article 13 of the Paris Agreement](#)