

EEA GHG data viewer

<https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer>

EU Legal basis

The European Environment Agency (EEA) supports the European Commission with the compilation of the EU GHG inventory and the implementation of the initial quality checks (QA/QC) of the GHG inventories of Member States (see section on institutional arrangements for the preparation of the EU GHG inventory, below).

The data shown in the GHG data viewer is based on national GHG inventories reported to the EU according to Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 (EU MMR) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02013R0525-20181224>

International reporting requirements

The GHG emissions data included in the GHG data viewer are fully consistent with the international requirements for GHG inventories reported to UNFCCC according to Decision 24/CP.19 (UNFCCC reporting guidelines)

<https://unfccc.int/resource/docs/2013/cop19/eng/10a03.pdf>

According to the UNFCCC reporting guidelines, the methods used to estimate GHG emissions and removals shall be those of the 2006 IPCC Guidelines for national GHG inventories (IPCC Guidelines) <https://www.ipcc-nppgiges.or.jp/public/2006gl/>

Geographical coverage

The GHG data viewer includes emissions data from EU Member States reported under the EU MMR, and also reported in the EU's GHG inventory submission to UNFCCC. The United Kingdom and Iceland also report GHG inventories to the EU according to the EU MMR, and their inventories are also part of the EU's GHG inventory reported to UNFCCC under the Kyoto Protocol until the end of 2022. As members of the EEA, the inventories of Norway, Liechtenstein, Switzerland, and Turkey are also included in the GHG data viewer.

EU-aggregates

There are three EU aggregates: EU-27+UK ('EUA' in the database, consistent with the EU GHG inventory submission under the UNFCCC); EU-KP ('EUC' in the database, consistent with the EU GHG inventory submission under the Kyoto Protocol), and EU-27 ('EUX in the database, current European Union, and based on the sum of the inventories of its 27 Member States).

Key data sources:

- EU GHG emission inventory reported under the UNFCCC and the Kyoto Protocol (<https://www.eea.europa.eu/themes/climate/eu-greenhouse-gas-inventory>);
- EU ETS data from the European Commission and available in the EEA ETS viewer (<https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1>);
- GDP from the European Commission' AMECO database (https://ec.europa.eu/info/business-economy-euro/indicators-statistics/economic-databases/macro-economic-database-ameco/ameco-database_en);
- Energy consumption from Eurostat's energy statistics (<https://ec.europa.eu/eurostat>); and,
- Average population from Eurostat's population statistics (<https://ec.europa.eu/eurostat>).

GDP, energy consumption and population are used to estimate the indicators of emissions per GDP (in 2015 market prices), emissions per energy consumption (gross inland consumption), and emissions per capita (average population), respectively, as included in the GHG data viewer.

Sectoral breakdown

The GHG data viewer shows sectors according to the CRF classification used for reporting GHG inventories according to IPCC 2006 Guidelines, as well as a pre-defined sectoral aggregation that supports the analysis of GHG emission trends by EEA. The EEA pre-defined sectoral classification has been done according to the following mapping to the CRF inventory categories:

- Energy supply: CRF 1A1 (energy industries) + 1B (fugitives);
- Industry: CRF 1A2 (manufacturing industries and construction) + CRF 2 (industrial processes and product use);
- Domestic transport: CRF 1.A.3;
- Residential and commercial: CRF 1A4a (commercial) + CRF 1A4b (residential);
- Agriculture: CRF 1A4c (agriculture, forestry and fishing) + CRF 3 (agriculture);

- Waste: CRF 5 (waste);
- LULUCF: CRF 4 (LULUCF);
- International aviation (CRF 1D1a);
- International shipping (CRF 1D1b);

National GHG totals

There are six national totals shown in the data viewer (see also table below):

- ‘Total emissions (UNFCCC)’: Total GHG emissions excluding LULUCF, as reported in the CRF tables to UNFCCC.
- ‘Total emissions with international aviation (EU 2020)’: Total GHG emissions excluding LULUCF and including international aviation. This total has been used to track progress towards the EU’s 2020 target.
- ‘Total emissions with international transport (EEA)’: Total GHG emissions excluding LULUCF and including international aviation and international navigation. This total has been created to account for all GHG emissions as reported to UNFCCC, noting that international transport is excluded from the current targets under the Kyoto Protocol.
- ‘Total net emissions (UNFCCC)’: Total GHG emissions including LULUCF, as reported in the CRF tables to UNFCCC.
- ‘Total net emissions with international aviation (EU NDC)’: Total GHG emissions including LULUCF and including international aviation. This total has been included to track progress towards the EU’s 2030 target (NDC under the Paris Agreement), and the climate neutrality objective by 2050.
- ‘Total net emissions with international transport (EEA)’: Total GHG emissions including LULUCF and including international aviation and international navigation. This total has been created to account for all net GHG emissions as reported to UNFCCC, noting that international transport is excluded from the current targets under the Kyoto Protocol.

	Energy, IPPU, agriculture, waste, indirect CO ₂	LULUCF	International aviation	International navigation
Total emissions (UNFCCC)	✓			
Total emissions with international aviation (EU 2020)	✓		✓	
Total emissions with international transport (EEA)	✓		✓	✓
Total net emissions (UNFCCC)	✓	✓		
Total net emissions with international aviation (EU NDC)	✓	✓	✓	
Total net emissions with international transport (EEA)	✓	✓	✓	✓

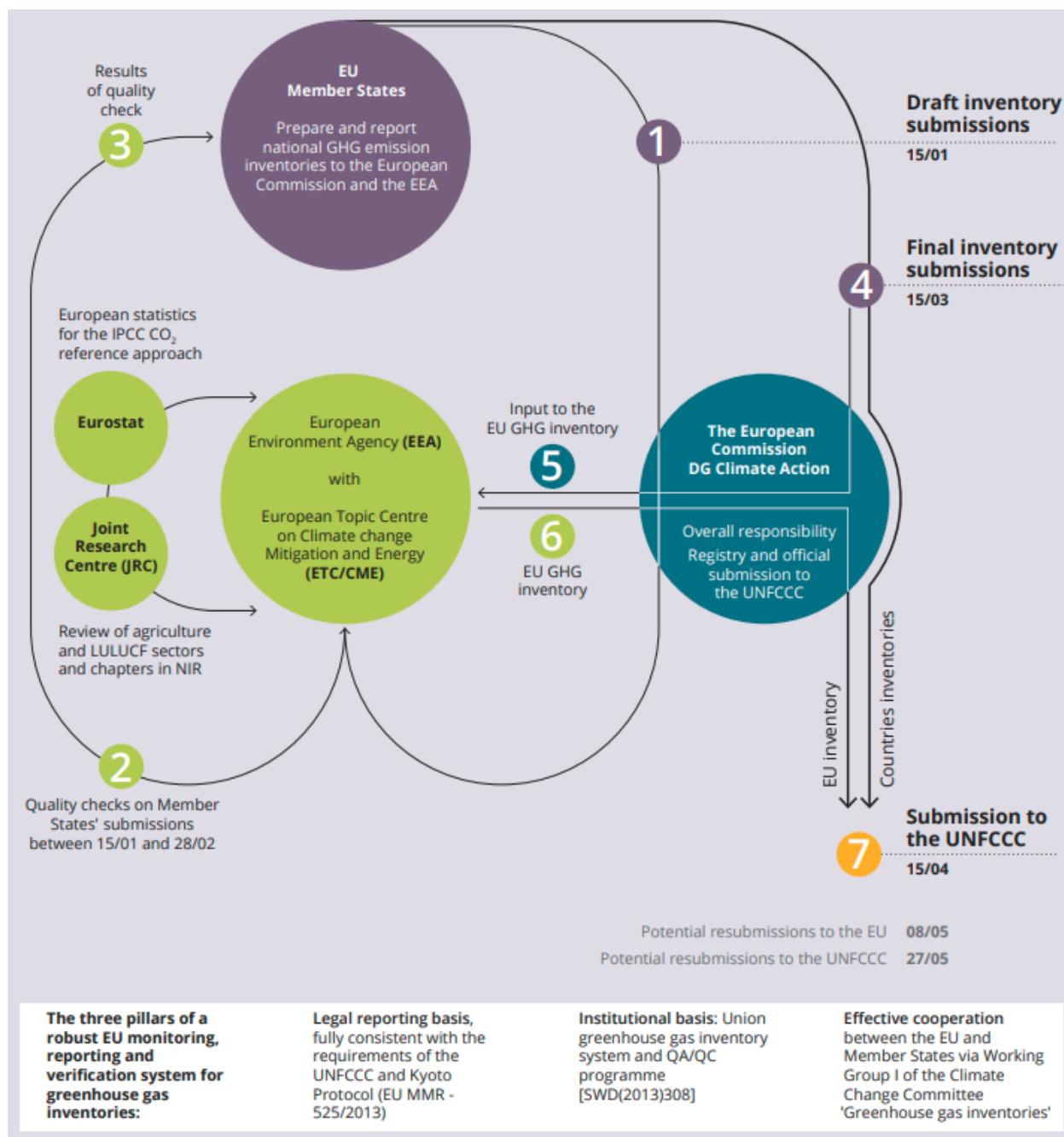
Additional information

More detailed information, including activity data and emission factors, as well as methodological descriptions for EU key categories can be found in the EU's national inventory report and the underpinning CRF tables, available from the EEA website <https://www.eea.europa.eu/themes/climate/eu-greenhouse-gas-inventory> For EEA member countries not included in the EU's GHG inventory, additional information can be found on the UNFCCC website <https://unfccc.int/ghg-inventories-annex-i-parties/2021>

Institutional arrangements for the preparation of the EU GHG inventory

The EU GHG inventory is a collective effort between the different EU institutions involved in the preparation and quality assurance/quality control (QA/QC) of Member States' GHG inventories: The EEA and its ETC/CME, DG CLIMA, JRC and Eurostat (see figure below).

The EU's GHG inventory system, and process regarding the compilation of EU GHG inventory



Source: EEA, <https://www.eea.europa.eu/publications/trends-and-drivers-of-eu-ghg> For more information see the latest EU NIR <https://www.eea.europa.eu/themes/climate/eu-greenhouse-gas-inventory>