



Climate Change

U.S. Greenhouse Gas Inventory Report: 1990-2013

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About the Emissions Inventory

EPA develops an annual report called the Inventory of U.S. Greenhouse Gas Emissions and Sinks (Inventory). This report tracks total annual U.S. emissions and removals by source, economic sector, and greenhouse gas going back to 1990. EPA uses national energy data, data on national agricultural activities, and other national statistics to provide a comprehensive accounting of total greenhouse gas emissions for all man-made sources in the United States. EPA also collects greenhouse gas emissions data from individual facilities and suppliers of certain fossil fuels and industrial gases through the [Greenhouse Gas Reporting Program](#).

The national greenhouse gas inventory is submitted to the United Nations in accordance with the [Framework Convention on Climate Change](#). [EXIT Disclaimer](#). In preparing the annual emissions inventory report, EPA collaborates with hundreds of experts representing more than a dozen U.S. government agencies, academic institutions, industry associations, consultants and environmental organizations.

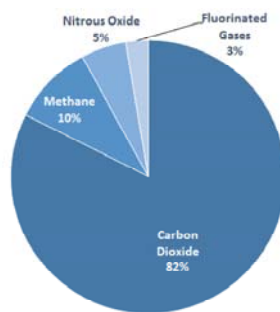
Overview of Greenhouse Gases and Sources of Emissions

Key findings from the 1990-2013 U.S. Inventory include:

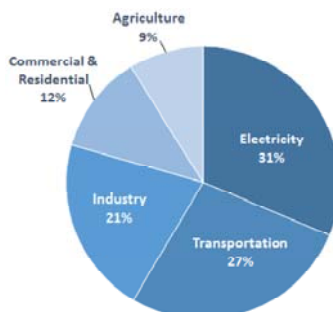
- In 2013, U.S. greenhouse gas emissions totaled 6,673 million metric tons of carbon dioxide equivalents.
- U.S. emissions increased by 2.0 percent from 2012 to 2013. Recent trends can be attributed to multiple factors including increased emissions from electricity generation, an increase in miles traveled by on-road vehicles, an increase in industrial production and emissions in multiple sectors, and year-to-year changes in the prevailing weather.
- Greenhouse gas emissions in 2013 were 9 percent below 2005 levels.

The graphs below provide an overview of greenhouse gas emissions in the United States based on information from the inventory. Click the links above each chart to learn more about each of these topics.

[Overview of Greenhouse Gases](#)



[Sources of Greenhouse Gas Emissions](#)



See the Data

EPA has developed an interactive tool that provides access to data from the national greenhouse gas inventory. Visit the [Greenhouse Gas Inventory Data Explorer](#) to create customized graphs, examine trends over time, and download the data.

The graphs below are examples from EPA's Greenhouse Gas Inventory Data Explorer. Click either image to enter the tool and explore an interactive version of the graph.

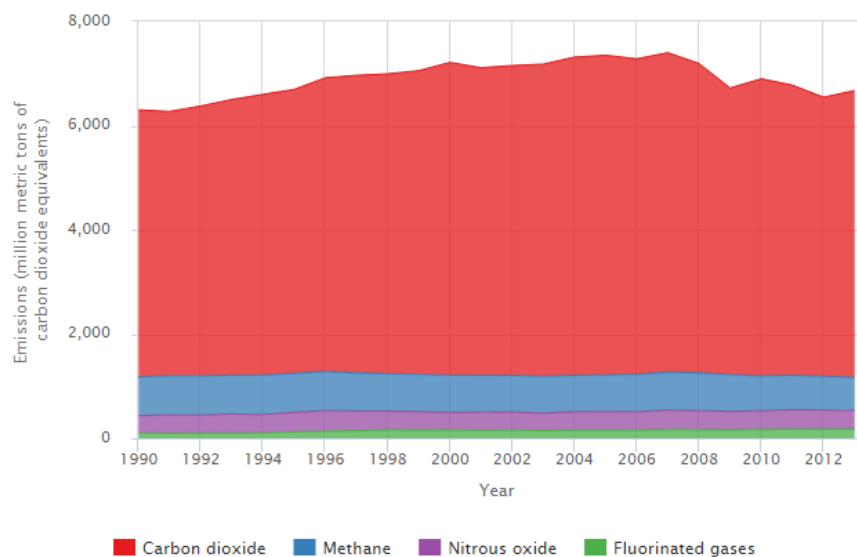


Explore emissions
data with EPA's
interactive tool

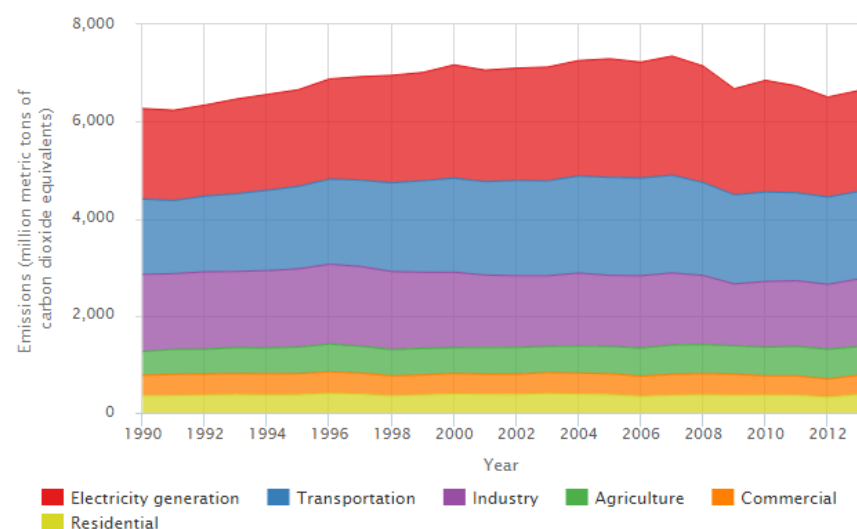
Related Links

- [11/19/15 Workshop on Petroleum and Natural Gas Systems](#)
- [Natural Gas Systems Data in the Inventory](#)
- [U.S. Greenhouse Gas Inventory Report Archives](#)
- [Greenhouse Gas Reporting Program](#)
- [Relationship between the Inventory and the Greenhouse Gas Reporting Program](#)

U.S. Greenhouse Gas Emissions by Gas, 1990-2013



U.S. Greenhouse Gas Emissions by Economic Sector, 1990-2013



Full Report

Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013 (April 2015):

[Read or download the entire Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013](#) (PDF, 564 pp., 11.1 MB). For faster access, individual report sections are posted below, for example the [Executive Summary](#) (PDF, 27 pp., 1.03 MB).

Individual sections:

[Upfront](#) (PDF) (5 pp., 345 KB) - Includes title page, acknowledgments and preface.

[Table of Contents](#) (PDF) (17 pp., 521 KB) - Contains the main inventory document's table of contents as well as the list of tables, figures, and boxes.

[Executive Summary \(PDF\)](#) (27 pp., 1.03 MB) - Provides a broad overview of all U.S. greenhouse gas emission sources and sinks, introduces key concepts and discusses the primary drivers for changes in emissions. All material in the Executive Summary is drawn from the following chapters.

[Introduction \(PDF\)](#) (24 pp., 1.22 KB) - Includes background information on greenhouse gas emission inventories, an introduction to climate change, a discussion of methodological issues and plans for QA/QC and an uncertainty analysis.

[Trends in Greenhouse Gas Emissions \(PDF\)](#) (35 pp., 1.38 MB) - Provides an overview of emission trends and discusses the primary drivers for changes in emissions.

[Energy \(PDF\)](#) (89 pp., 2.08MB) - Discusses and quantifies energy related emissions of all greenhouse gases resulting from stationary and mobile source activities including fuel combustion and fugitive fuel emissions.

[Industrial Processes \(PDF\)](#) (115 pp., 1.97 MB) - Addresses emissions from industrial processes not directly related to energy activities.

[Agriculture \(PDF\)](#) (44 pp., 2.31 MB) - Addresses anthropogenic emissions from agricultural activities (not including fuel combustion and sewage emissions, which are addressed in the Energy and Waste chapters).

[Land Use, Land-Use Change, and Forestry \(PDF\)](#) (91 pp., 3.39 MB) - Addresses emissions and removals from forest and land-use change activities, primarily carbon dioxide.

[Waste \(PDF\)](#) (34 pp., 1.01 MB) - Addresses emissions from waste management activities.

[Other \(PDF\)](#) (1 pp., 199 KB) - Addresses emissions from the "Other" IPCC sector.

[Recalculations and Improvements \(PDF\)](#) (9 pp., 557 KB) - Includes an overview of changes in this year's report, including historical data, methodology and other changes relative to the 1990-2011 report.

[References \(PDF\)](#) (71 pp., 887 KB) - Contains the list of references used in the main inventory document.

[All Annexes \(PDF\)](#) (452 pp., 13.9 MB) - Supplementary information, data tables, detailed emission calculations and methodological discussions.

[Annex Introduction and TOC \(PDF\)](#) (1 pp., 207 KB) - Contains the table of contents for the Annex.

[Annex 1 \(PDF\)](#) (27 pp., 1.09 MB) - Key Category Analysis.

[Annex 2 \(PDF\)](#) (97 pp., 2.02 MB) - Methodology and Data for Estimating CO₂ Emissions from Fossil Fuel Combustion.

[Annex 3 \(PDF\)](#) (264 pp., 6.54 MB) - Methodological Descriptions for Additional Source or Sink Categories.

[Annex 4 \(PDF\)](#) (10 pp., 386 KB) - IPCC Reference Approach for Estimating CO₂ Emissions from Fossil Fuel Combustion.

[Annex 5 \(PDF\)](#) (2 pp., 219 KB) - Assessment of the Sources and Sinks of Greenhouse Gas Emissions Not Included.

[Annex 6 \(PDF\)](#) (28 pp., 741 KB) - Additional Information.

[Annex 7 \(PDF\)](#) (19 pp., 467 KB) - Uncertainty.

[Annex 8 \(PDF\)](#) (4 pp., 345 KB) - QA/QC Procedures.

[Main Report Tables](#) (WinZip archive of CSV files, 240 KB) - Tables from the 1990-2013 Greenhouse Gas Inventory Report, in comma separated values (CSV) format.

[Annex Tables](#) (WinZip archive of CSV files, 277 KB) - Tables from the 1990-2013 Greenhouse Gas Inventory Report Annex, in comma separated values (CSV) format.

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