



Inventory of U.S. Greenhouse Gas Emissions and Sinks

About the Inventory of Greenhouse Gas Emissions and Sinks

EPA develops an annual report

<https://epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2022> called the Inventory of U.S. Greenhouse Gas Emissions and Sinks (Inventory), that tracks U.S. greenhouse gas emissions and sinks by source, economic sector, and greenhouse gas going back to 1990. EPA has prepared the Inventory of U.S. Greenhouse Gas Emissions and Sinks since the early 1990s. This annual report <https://epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2022>, provides a comprehensive accounting of total greenhouse gas emissions for all man-made sources in the United States, including carbon dioxide removal from the atmosphere by “sinks,” (e.g., through the uptake of carbon and storage in forests, vegetation, and soils) from management of lands in their current use or as lands are converted to other uses. The gases covered by the Inventory include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride.

The national greenhouse gas inventory is submitted to the United Nations in accordance with the Framework Convention on Climate Change [✕](https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/reporting-requirements)

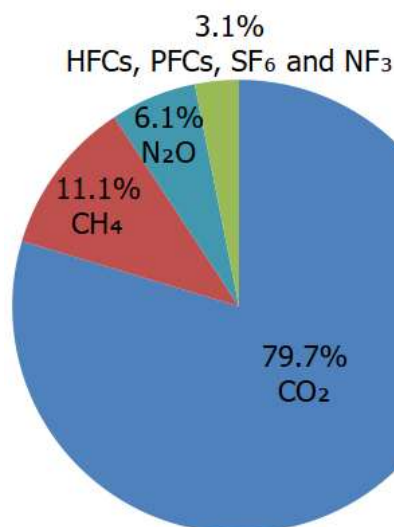
[<https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/reporting-requirements>](https://unfccc.int/process/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/reporting-requirements). In preparing the annual emissions and sinks 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. 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 [<https://epa.gov/ghgreporting>](https://epa.gov/ghgreporting).

Trends

Key findings from the latest Inventory

[<https://epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2022>](https://epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2022) include:

Overview of Greenhouse Gas Emissions



Related Links

- New!** 1990-2023 DRAFT Inventory Report is available for public comment per federal register notice (FRL-9448-04-OAR, FR Doc. 2024-31058 [✕](https://www.federalregister.gov/documents/2025/01/15/2024-31058/inventory-of-us-greenhouse-gas-emissions-and-sinks-1990-2023) [<https://www.federalregister.gov/documents/2025/01/15/2024-31058/inventory-of-us-greenhouse-gas-emissions-and-sinks-1990-2023>](https://www.federalregister.gov/documents/2025/01/15/2024-31058/inventory-of-us-greenhouse-gas-emissions-and-sinks-1990-2023)). The draft report will be uploaded to public docket EPA-HQ-OAR-2024-0591 [✕](https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2022) between January 15 and February 13, 2025. **Comments are due by March 17, 2025.**

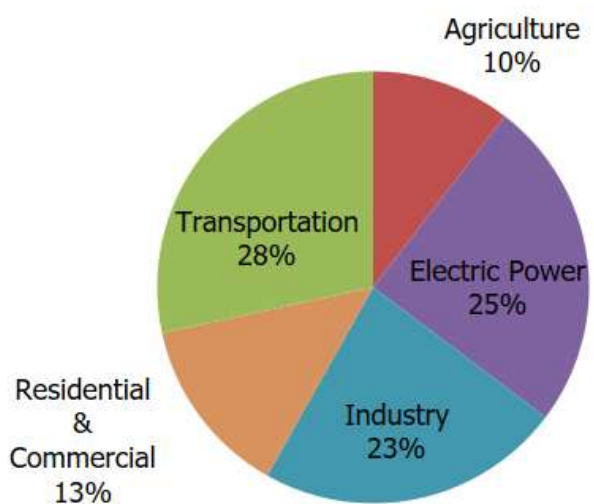
- In 2022, U.S. greenhouse gas emissions totaled 6,343 million metric tons of carbon dioxide equivalents, and 5,489 million metric tons of carbon dioxide equivalents after accounting for sequestration from the land sector.
- Emissions increased in 2022 by 1 percent (after accounting for sequestration from the land sector) compared to the previous year. The increase in total greenhouse gas emissions was driven largely by an increase in CO₂ emissions from fossil fuel combustion. In 2022, CO₂ emissions from fossil fuel combustion increased by 1 percent relative to the previous year. This increase in fossil fuel consumption emissions was from increased energy use, due in part to the continued rebound in economic activity after the height of the COVID-19 pandemic.
- Greenhouse gas emissions in 2022 (after accounting for sequestration from the land sector) were 17 percent below 2005 levels.

Note: All emission estimates are from the *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2022* <<https://epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2022>>. Land Use, Land-Use Change, and Forestry in the United States is a net sink and offsets 13% of these greenhouse gas emissions. The net sink is not shown in the above diagram.

See the Data Highlights <<https://epa.gov/ghgemissions/data-highlights>> to learn more about the latest inventory findings.

- 1990–2022 Inventory Report <<https://epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2022>> and its Data Highlights <<https://epa.gov/ghgemissions/data-highlights>>
- Greenhouse Gas Inventory Data Explorer <<https://cfpub.epa.gov/ghgdata/inventoryexplorer/>>
- Natural Gas Systems Data in the Inventory <<https://epa.gov/ghgemissions/natural-gas-and-petroleum-systems>>
- Stakeholder Webinar: Waste Sector Data and Methodology in the Inventory <<https://epa.gov/ghgemissions/stakeholder-webinar-waste-sector-data-and-methodology-us-greenhouse-gas-inventory>>

Total U.S. Greenhouse Gas Emissions by Economic Sector in 2022

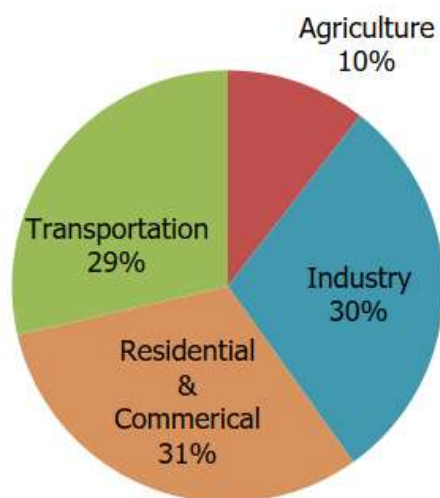


Total U.S. Greenhouse Gas Emissions by Economic Sector

Image to save or print

<https://epa.gov/system/files/images/2024-04/total-ghg-2024.png>

- Greenhouse Gas Reporting Program (GHGRP)
<<https://epa.gov/ghgreporting>>
- GHGRP and the U.S. Inventory of Greenhouse Gas Emissions and Sinks
<<https://epa.gov/ghgreporting/ghgrp-and-us-inventory-greenhouse-gas-emissions-and-sinks>>
- USDA's USFS Resource Bulletin 
<<https://research.fs.usda.gov/treearch/66035>>
- U.S. Greenhouse Gas Inventory Report Archives
<<https://epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-archive>>



Total U.S. Greenhouse Gas Emissions by Economic Sector and Electricity End-Use

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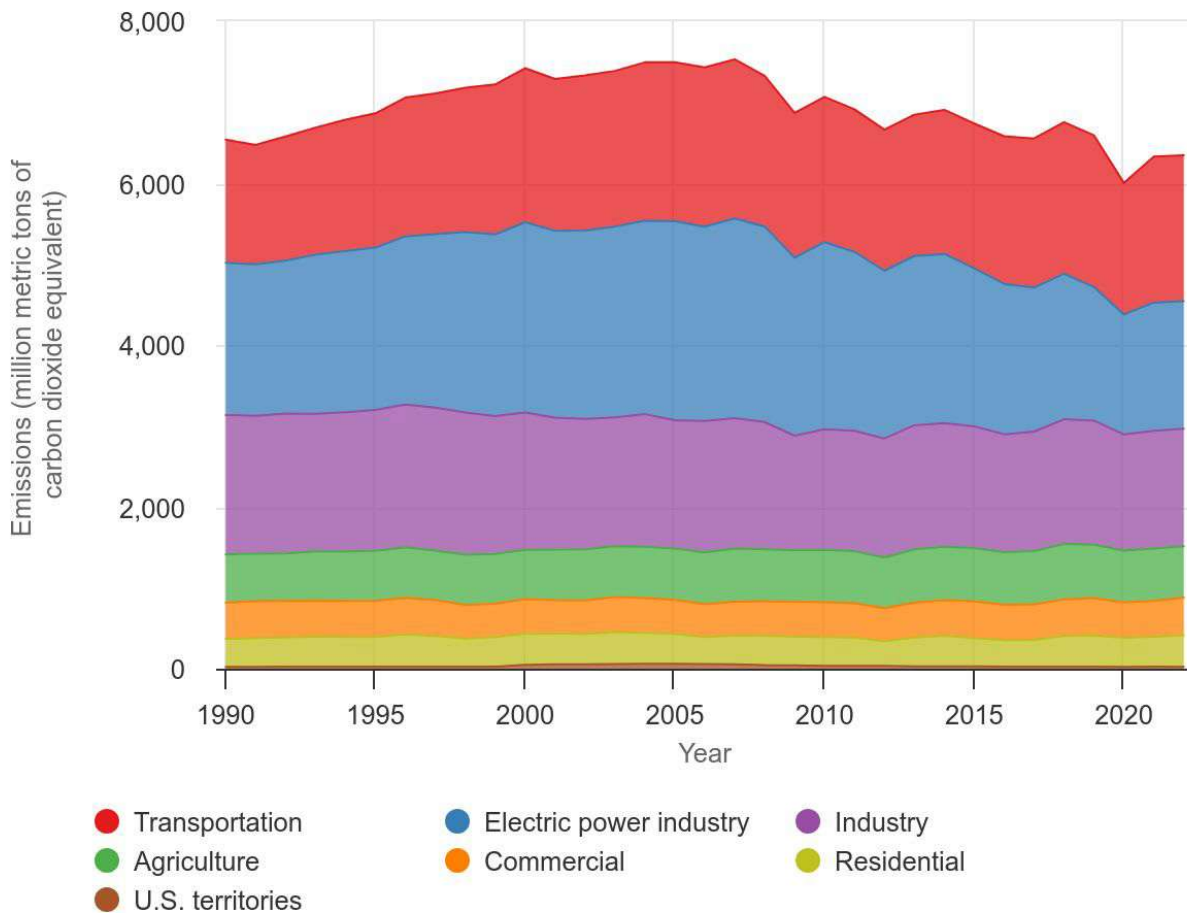
<https://epa.gov/system/files/images/2024-04/total-2024.png>

Note: All emission estimates are sourced from the *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2022* <https://epa.gov/ghgemissions-and-sinks-1990-2022>. Greenhouse gas emissions from residential buildings increase substantially when emissions from electricity use <https://epa.gov/ghgemissions#electricity-end-use> are included, due to the relatively large share of electricity use for space heating, ventilation, and air conditioning; lighting; and appliances. Emissions from electricity use are allocated to the industrial sector. Industrial activities account for a much larger share of U.S. greenhouse gas emissions than land use, land-use change, and forestry in the United States. This net sink is r

Explore 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 <<https://cfpub.epa.gov/ghgdata/inventoryexplorer>> to create customized graphs, examine trends over time, and download the data. The graph below is an example from EPA's Greenhouse Gas Inventory Data Explorer. Click the image to enter the tool and explore an interactive version of the graph.

U.S. Greenhouse Gas Emissions by Economic Sector, 1990–2022



Source: U.S. EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2022. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

Last updated on July 1, 2025