

The background of the cover is a light blue sky with white clouds. Overlaid on this are several diamond-shaped images: a landfill with a yellow excavator, a rural landscape with green fields and a road, an industrial refinery with tall distillation columns, a traffic jam on a highway, a wastewater treatment plant with circular tanks, a blue tractor in a field, a black and white cow in a barn, a steel mill with glowing orange molten metal, and a forest of tall trees. In the bottom right corner, there are two industrial smokestacks emitting white smoke.

**EPA** United States  
Environmental Protection  
Agency  
EPA 430-D-23-001

# DRAFT Inventory of U.S. Greenhouse Gas Emissions and Sinks

**1990-2021**

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Front cover photo credit for cow and digester: Vanguard Renewables.

1 HOW TO OBTAIN COPIES

2 You can electronically download this document on the U.S. EPA's homepage at  
3 <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>.

4 All data tables of this document for the full time series 1990 through 2021, inclusive, will be made available with  
5 the final report published by April 15, 2023 at the internet site mentioned above.

6

7 RECOMMENDED CITATION

8 EPA (2023) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021. U.S. Environmental Protection  
9 Agency, EPA 430-D-23-001. [https://www.epa.gov/ghgemissions/draft-inventory-us-greenhouse-gas-emissions-](https://www.epa.gov/ghgemissions/draft-inventory-us-greenhouse-gas-emissions-and-sinks-1990-2021)  
10 [and-sinks-1990-2021](https://www.epa.gov/ghgemissions/draft-inventory-us-greenhouse-gas-emissions-and-sinks-1990-2021).

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12 FOR FURTHER INFORMATION

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15 For more information regarding climate change and greenhouse gas emissions, see the EPA web site at  
16 <https://www.epa.gov/ghgemissions>.

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# Preface

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The United States Environmental Protection Agency (EPA) prepares the official U.S. Inventory of Greenhouse Gas Emissions and Sinks to fulfill annual existing commitments under the United Nations Framework Convention on Climate Change (UNFCCC). Under UNFCCC Article 4 and decisions at the First, Second, Fifth and Nineteenth Conference of Parties, national inventories for UNFCCC Annex I parties should be provided to the UNFCCC Secretariat each year by April 15.

In an effort to engage the public and researchers across the country, the EPA has instituted an annual public review and comment process for this document. The availability of the draft document on the EPA Greenhouse Gas Emissions web site was announced via [Federal Register Notice](#). The public comment period covers a 30-day period from February 15 through March 17, 2023, and comments received during the public review period will be posted to the docket EPA-HQ-OAR-2023-0001. Comments received after the closure of the public comment period are accepted and will be considered for the next edition of this annual report. Responses to comments are typically posted to EPA’s website 2-4 weeks following publication of the final report in April 2023.