Inventory of U.S. Greenhouse Gas Emissions and Sinks:

1990 – 1997

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Preface

The United States Environmental Protection Agency (EPA) prepares the official *U.S. Inventory of Greenhouse Gas Emissions and Sinks* to comply with existing commitments under the United Nations Framework Convention on Climate Change (UNFCCC). Under a decision of the UNFCCC Conference of the Parties, national inventories for most 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 is announced via Federal Register Notice, and the draft document is posted on the EPA web page.[1] Copies are also mailed upon request. The public comment period is limited to 30 days; however, comments received after the closure of the public comment period are accepted and considered for the next edition of this annual report. The EPA's policy is to allow at least 60 days for public review and comment when proposing new regulations or documents supporting regulatory development (unless statutory or judicial deadlines make a shorter time necessary), and 30 days for non-regulatory documents of an informational nature such as the Inventory document.

[1] See http://www.epa.gov/globalwarming/inventory

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Changes in This Year's U.S. Greenhouse Gas Inventory Report

Each year the EPA not only revises the estimates presented in the official *U.S. Greenhouse Gas Inventory of Emissions and Sinks* but also attempts to improve the analyses themselves through the use of better methods or data. A summary of the latest changes and additions to this report is provided below:

- An expanded discussion of emissions from International Bunker Fuels has been included in the Energy chapter. Emissions of CH_4, N_2O, CO, NO_x, and NMVOCs from these fuels have been estimated for the first time. Carbon dioxide emissions from aircraft have nearly doubled because of the inclusion of fuels consumed by foreign flagged air carriers for the first time. Previously, only U.S. flagged air carriers were able to be included. A new source of data for consumption of fuels for marine bunkers has also resulted in minor changes in the estimates from ships and boats.
- Nitrous oxide emissions from the combustion of jet fuel in aircraft were estimated for the first time using a simplified methodology based on the emission factors presented in IPCC/UNEP/OECD/IEA (1997).
- A new comparison of recent trends in various environmental and economic variables related to U.S. greenhouse gas emissions is presented in Box 1-1.
- An new analysis of sectoral (i.e., residential, commercial, industrial, transportation, and electric utility) carbon intensities and emission trends from CO_2 Emissions from Fossil Fuel Combustion is presented in Box 2-1.
- Carbon stored through the non-energy uses of fossil fuels was given a more detailed treatment in Table 2-5 and Table 2-6.
- The estimates for CO_2 emissions from Natural Gas Flaring were revised slightly and made more consistent with methane emission estimates under the venting portion of Petroleum Systems.
- Wood consumed as fuel is no longer reported by EIA separately for the commercial and residential end-use sectors; therefore, CH_4 and N_2O emission estimates from wood burned under Stationary Sources for these two sectors were not disaggregated by end-use sector.
- Estimates of potential emissions for select HFCs, PFCs, and SF_6 sources have been presented for the first time in Box 3-1.
- Nitrous oxide emission estimates from Agricultural Soil Management have been revised to account for the application of additional quantities of animal manure applied to soils. This revision was based on a better understanding of the ultimate fate of unmanaged animal manure.
- Useful constants, unit definitions, and conversion factors have been included for the first time in Annex Q. A list of abbreviations and chemical symbols has also been included in Annex R and Annex S, respectively.
- A detailed glossary of terms related to greenhouse gas emissions and inventories has been provided for the first time in Annex T.