U.S. Agriculture and Forestry Greenhouse Gas Inventory: 1990-2001. Global Change Program Office, Office of the Chief Economist, U.S. Department of Agriculture. Technical Bulletin No. 1907. 164 pp. March 2004.

Abstract

The U.S. Agriculture and Forestry Greenhouse Gas Inventory: 1990-2001 (USDA GHG Inventory) is a comprehensive assessment of greenhouse gas emissions and sinks in U.S. agriculture and forests. The USDA GHG Inventory provides extensive, in-depth emissions and sinks estimates for livestock, cropland, and forests, as well as energy consumption in livestock and cropland agriculture. Estimates are provided at State, regional, and national scales, categorized by land ownership and management practices where possible. Information in the report can be used to identify opportunities to reduce emissions and enhance sinks through agriculture and forest management. The report was prepared collaboratively with contributions from the United States Department of Agriculture (Forest Service, Natural Resources Conservation Service, Agricultural Research Service, Office of Energy Policy and New Uses, and the Global Change Program Office), the Environmental Protection Agency (EPA), and researchers at Colorado State University. The estimates in the USDA GHG Inventory are consistent with those published by the EPA in the official Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2001 and submitted to the United Nations Framework Convention on Climate Change in April 2003.

Keywords: greenhouse gases, land use, land use change, carbon stocks, carbon sequestration, enteric fermentation, waste management, soil management, residue burning, rice cultivation, energy consumption.

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Table of Contents

Table of Contents

List of Boxes, Maps, Tables, and Figures

Page

Boxes

Maps

Tables

List of Boxes, Maps, Tables, and Figures

Figures

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Glossary of Terms and Units

CO_2	Carbon dioxide
CH_4	Methane
N_2O	Nitrous oxide
NOx	Nitrogen oxides
C	Carbon
GHG	Greenhouse gas
GWP	Global warming potential
Tg	Teragram (10^{12} grams)
Tg CO_2 eq.	Teragrams of carbon dioxide equivalent units
Gg	Gigagram (10^9 grams)
Mg	Megagram (10^6 grams)
t	Metric ton (1,000 kg)
ha	Hectares
ac	Acres
DE	Digestible energy (percent)
Y_m	Fraction of gross energy converted to CH_4
TDN	Total digestible nutrients
VOCs	Volatile organic compounds
VS	Volatile solids
DM	Dry matter
Btu	British thermal unit
Qbtu	Quadrillion British thermal units
Tbtu	Trillion British thermal units
EF	Emission factor
MCF	Methane conversion factor