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

1990 – 2014

APRIL 15, 2016

U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460
U.S.A.
HOW TO OBTAIN COPIES
You can electronically download this document on the U.S. EPA's homepage at
<http://www3.epa.gov/climatechange/emissions/usinventoryreport.html>. To request free copies of this report, call
the National Service Center for Environmental Publications (NSCEP) at (800) 490-9198, or visit the web site above
and click on “order online” after selecting an edition.

All data tables of this document are available for the full time series 1990 through 2014, inclusive, at the internet site
mentioned above.

FOR FURTHER INFORMATION
Contact Mr. Leif Hockstad, Environmental Protection Agency, (202) 343–9432, hockstad.leif@epa.gov.
Or Ms. Melissa Weitz, Environmental Protection Agency, (202) 343–9897, weitz.melissa@epa.gov.
For more information regarding climate change and greenhouse gas emissions, see the EPA web site at
<http://www3.epa.gov/climatechange>.

Released for printing: April 15, 2016
Acknowledgments

The Environmental Protection Agency would like to acknowledge the many individual and organizational contributors to this document, without whose efforts this report would not be complete. Although the complete list of researchers, government employees, and consultants who have provided technical and editorial support is too long to list here, EPA’s Office of Atmospheric Programs would like to thank some key contributors and reviewers whose work has significantly improved this year’s report.

Work on emissions from fuel combustion was led by Leif Hockstad. Susan Burke and Amy Bunker directed the work on mobile combustion and transportation. Work on industrial processes and product use emissions was led by Mausami Desai. Work on fugitive methane emissions from the energy sector was directed by Melissa Weitz and Cate Hight. Calculations for the waste sector were led by Rachel Schmeltz. Tom Wirth directed work on the Agriculture and the Land Use, Land-Use Change, and Forestry chapters. Work on emissions of HFCs, PFCs, SF$_6$, and NF$_3$ was directed by Deborah Ottinger and Dave Godwin.

Within the EPA, other Offices also contributed data, analysis, and technical review for this report. The Office of Transportation and Air Quality and the Office of Air Quality Planning and Standards provided analysis and review for several of the source categories addressed in this report. The Office of Solid Waste and the Office of Research and Development also contributed analysis and research.

The Energy Information Administration and the Department of Energy contributed invaluable data and analysis on numerous energy-related topics. The U.S. Forest Service prepared the forest carbon inventory, and the Department of Agriculture’s Agricultural Research Service and the Natural Resource Ecology Laboratory at Colorado State University contributed leading research on nitrous oxide and carbon fluxes from soils.

Other government agencies have contributed data as well, including the U.S. Geological Survey, the Federal Highway Administration, the Department of Transportation, the Bureau of Transportation Statistics, the Department of Commerce, the National Agricultural Statistics Service, the Federal Aviation Administration, and the Department of Defense.

We would also like to thank Marian Martin Van Pelt and the full Inventory team at ICF International including Leslie Chinery, Randy Freed, Diana Pape, Robert Lanza, Lauren Marti, Mollie Averty, Mark Flugge, Larry O’Rourke, Deborah Harris, Dean Gouveia, Jonathan Cohen, Alexander Lataille, Andrew Pettit, Sabrina Andrews, Marybeth Riley-Gilbert, Bikash Acharya, Bobby Renz, Claire Boland, Rebecca Ferenchik, Kasey Knoell, Kevin Kurkul, Cory Jemison, Matt Lichtash, Tyler Fitch, Jessica Kuna, Emily Kent, Emily Golla, Krisztina Pjeczka, John Snyder, Rani Murali, and Gabrielle Jette for synthesizing this report and preparing many of the individual analyses. Eastern Research Group, RTI International, Raven Ridge Resources, and Ruby Canyon Engineering Inc. also provided significant analytical support.
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 decision 3/CP.5 of the UNFCCC Conference of the 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 is announced via Federal Register Notice and is posted on the EPA web site. Copies are also mailed upon request. The public comment period is generally 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.