



Trends in US Greenhouse Gas Emissions (1990-2009)

From EPA DRAFT INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND
SINKS: 1990-2009

MWAQC

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Background

- United Nations Framework Convention on Climate Change (UNFCCC) established in 1992.
- Objective - to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system.
- 194 parties (includes US) to the convention must submit an annual report on their national GHG emissions and removals.
- US just released a draft inventory (sources & sinks) for 2009 of greenhouse gases. 30 days public comment period from time of publication in Federal Register (yet to be published).

GHG Emissions Composition

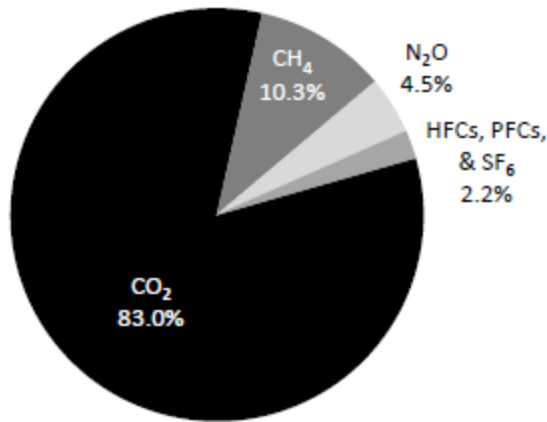


Figure ES-4: 2009 Greenhouse Gas Emissions by Gas (percents based on Tg CO₂ Eq.)

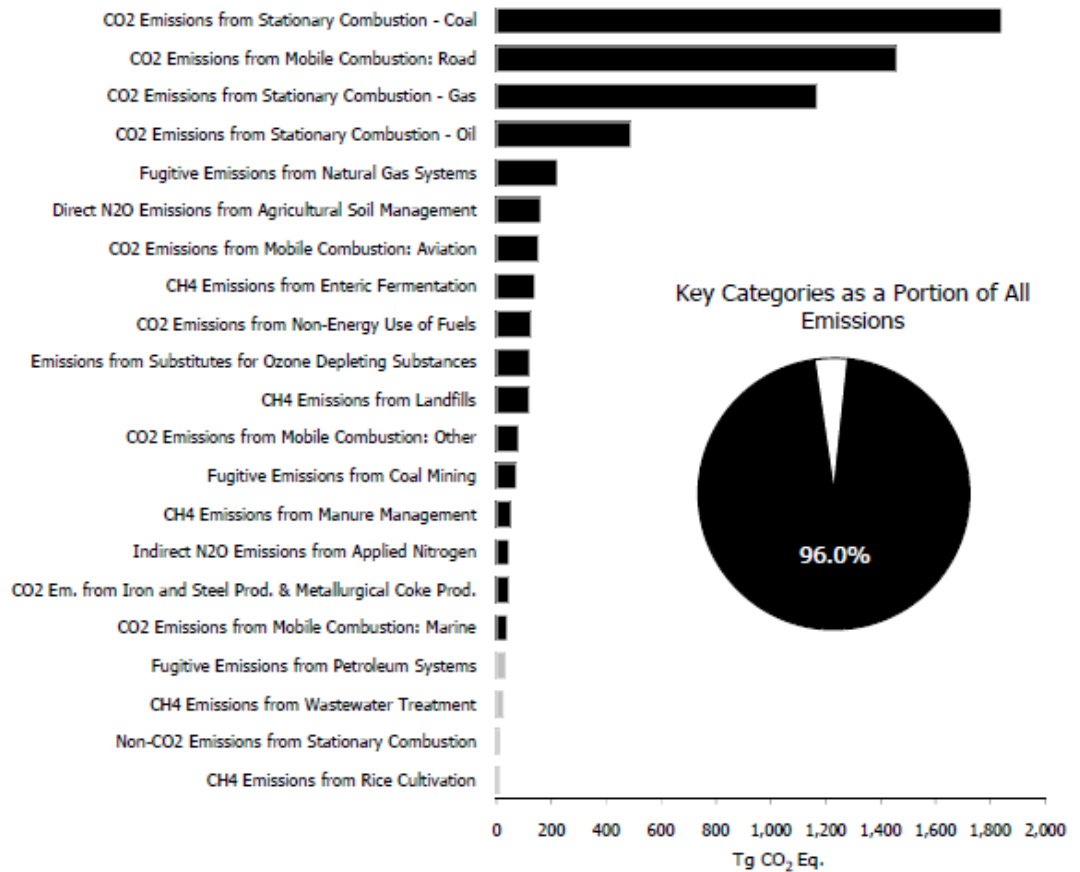


Figure ES-16: 2009 Key Categories

Notes: For a complete discussion of the key category analysis, see Annex 1.

Black bars indicate a Tier 1 level assessment key category.

Gray bars indicate a Tier 2 level assessment key category.

GHG Emissions Trends - 1

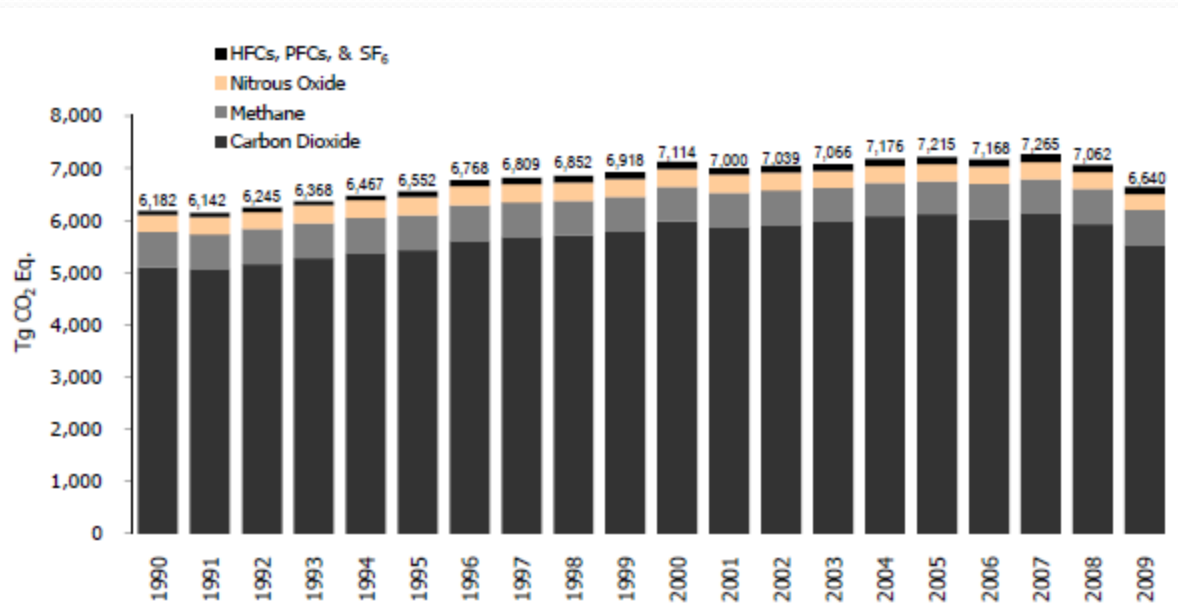


Figure ES-1: U.S. Greenhouse Gas Emissions by Gas

GHG Emissions Trends - 2

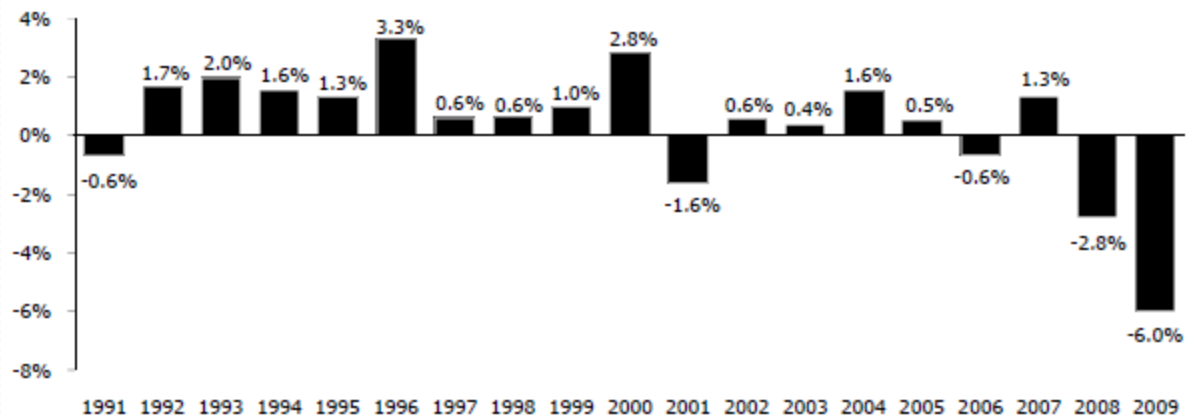
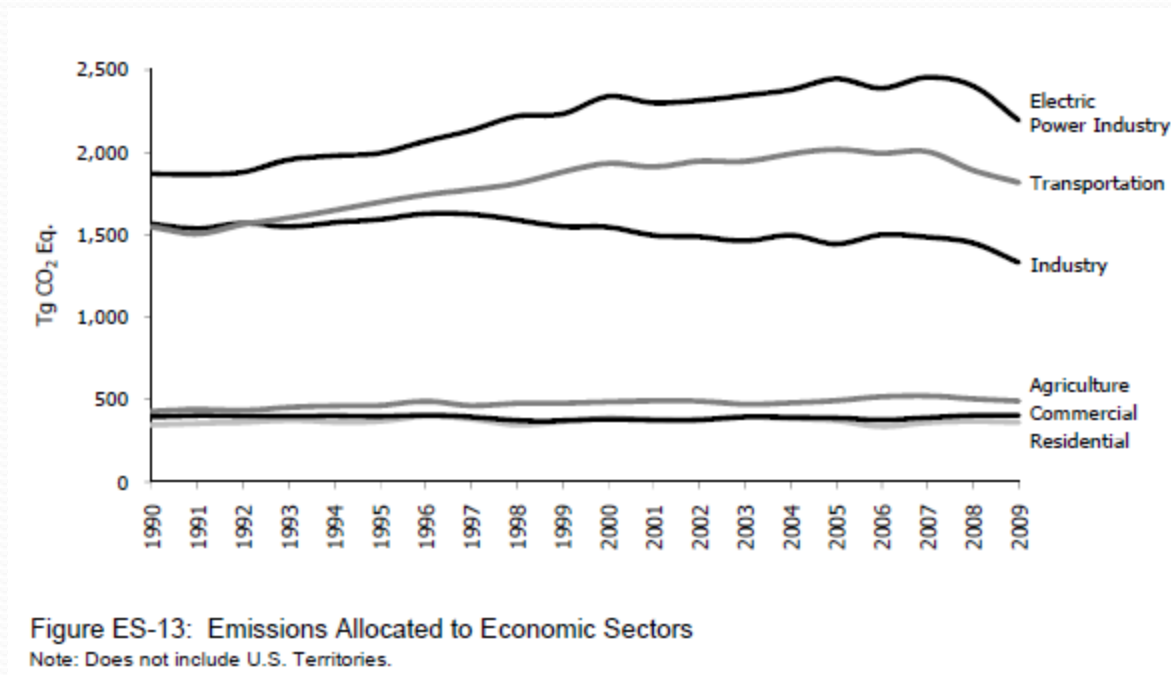


Figure ES-2: Annual Percent Change in U.S. Greenhouse Gas Emissions

GHG Emissions Trends - 3



GHG Emissions Trends - 4

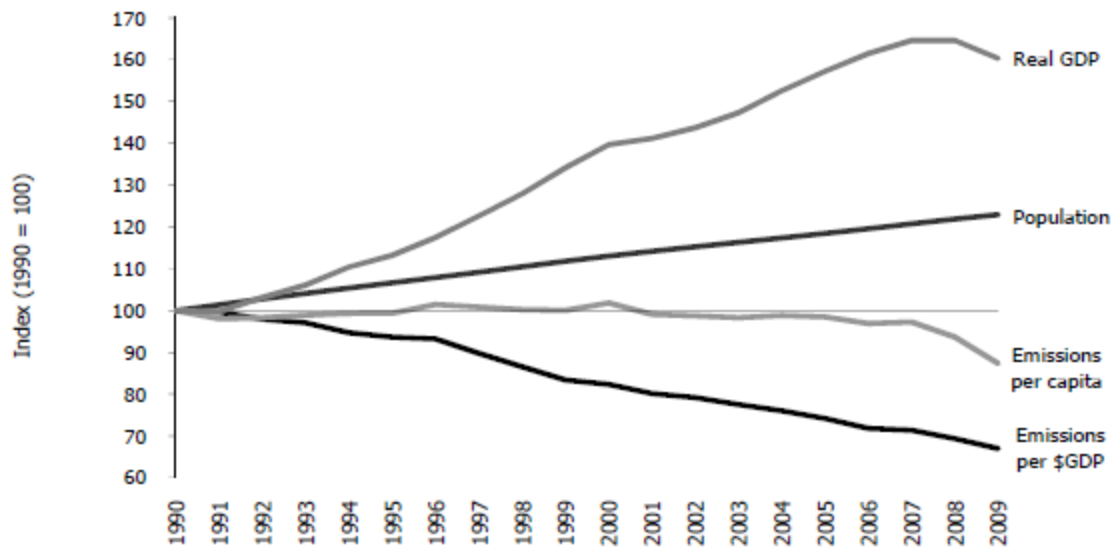




Figure ES-15: U.S. Greenhouse Gas Emissions Per Capita and Per Dollar of Gross Domestic Product

Conclusion

- GHG emissions (1990-2009) : 7.4% 
 - Increase of average 0.4% per annum
- GHG emissions (2008-2009) : 6.0% 
 - Decrease due to:
 - decrease in economic output resulting in a decrease in energy consumption across all sectors (largest decline in industrial & transportation sectors)
 - decrease in the carbon intensity of fuels used to generate electricity due to fuel switching (price of coal increased, price of natural gas decreased)