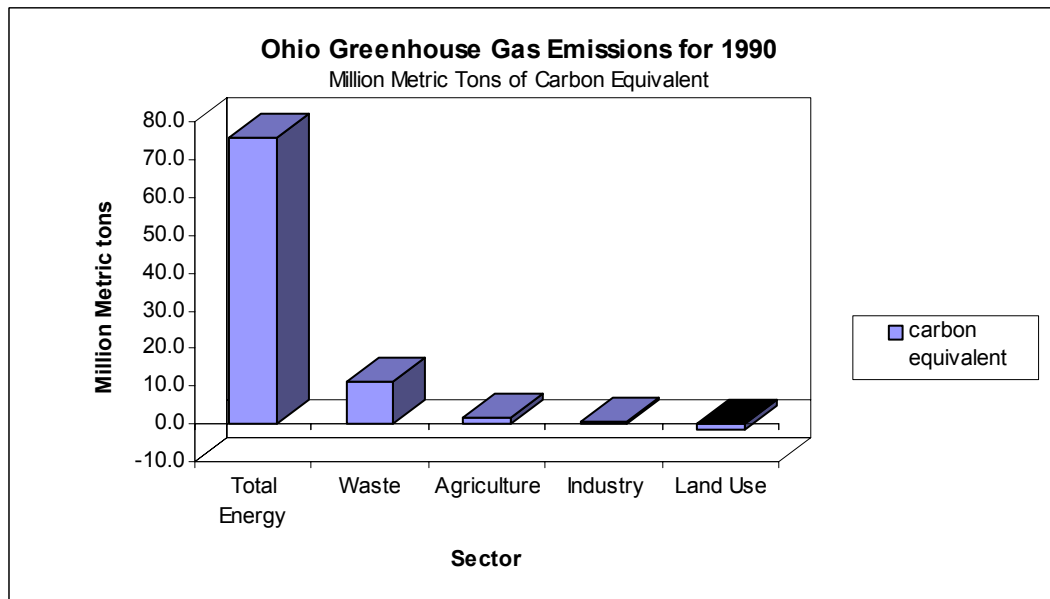


OHIO GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The report “*Greenhouse Gas Emission Inventory for Ohio*” provides a detailed inventory of greenhouse gas emissions and sinks for Ohio in 1990. Emissions for each source were estimated primarily using methods from the 1992 guidance document **State Workbook: Methodologies for Estimating Greenhouse Gas Emissions**. According to these estimates, in 1990, Ohio emitted 88.9 million metric tons of carbon equivalent (MMTCE). Ohio estimated emissions of 18.4 MMTCE from biomass fuels and other sources. Emissions from these sources are not included in the reported total or table below.¹

The principal greenhouse gas was carbon dioxide, comprising 275 million metric tons (75.0 MMTCE) in 1990. Other emissions in 1990 included methane with 2.35 million metric tons (13.5 MMTCE), 0.01 million metric tons of nitrous oxide (0.5 MMTCE) and 1100 MTCE of HFCs.

¹ Note that the state of the art emission inventory method has advanced since Ohio completed its inventory; therefore, we have made the following adjustments to Ohio’s emission estimates. First, we excluded emission estimates for sources not covered by the most recent inventory guidance (<http://www.epa.gov/ttn/chief/eiip/techreport/index.html>). These emissions include carbon dioxide from biomass fuels and emissions from ozone depleting compounds such as CFCs, HCFCs, and halons. Second, we used updated values for global warming potentials.

Ohio Greenhouse Gas Emissions for 1990

BY SECTOR	CO ₂ (MMTCE)	Methane (MMTCE)	Nitrous Oxide (MMTCE)	HFCs, PFCs, and SF6 (MMTCE)	Total GHG Emissions (MMTCE)
Energy - Residential	5.6	*	*	*	5.6
Energy - Commercial	2.8	*	*	*	2.8
Energy - Industrial	15.7	*	*	*	15.7
Energy - Transport	15.2	*	*	*	15.2
Energy - Utility	31.4	*	*	*	31.4
Energy - Exported Electricity	*	*	*	*	0.0
Energy - Other	5.3	1.0	*	*	6.3
Total Energy	75.9	1.0	*	*	76.9
Waste	0.1	11.2	*	*	11.3
Agriculture	*	1.2	0.5	*	1.7
Industry	0.6	*	*	0.0	0.6
Land Use	-1.6	*	*	*	-1.6
Total	75.0	13.5	0.5	0.0	88.9

All emissions are reported in million metric tons of carbon equivalent (MMTCE).

An asterisk (*) indicates that emissions of the gas from this sector were zero, insignificant, or not reported.

Emissions due to coal mining and extraction of natural gas and oil are included in the energy – other figures, and emissions from biofuel combustion are excluded.

The major source of carbon dioxide emissions was fossil fuel combustion (99%), with minor emissions from cement production, lime manufacture, and waste combustion. Carbon dioxide sinks (i.e., an increase in forest carbon storage) offset about 2% of the total carbon dioxide emissions. Sources of methane emissions were landfills (83%), coal mining (7%), domesticated animals (5%), manure management (3%), and agricultural residue burning (2%). Nitrous oxide emissions were attributable to agricultural soil management (88%) and agricultural residue burning (12%). Emissions of HFCs were due to HCFC-22 production.

Ohio emissions in 1990 were 8.2 MTCE per capita, compared to 1990 U.S. emissions of 6.4 MTCE per capita.