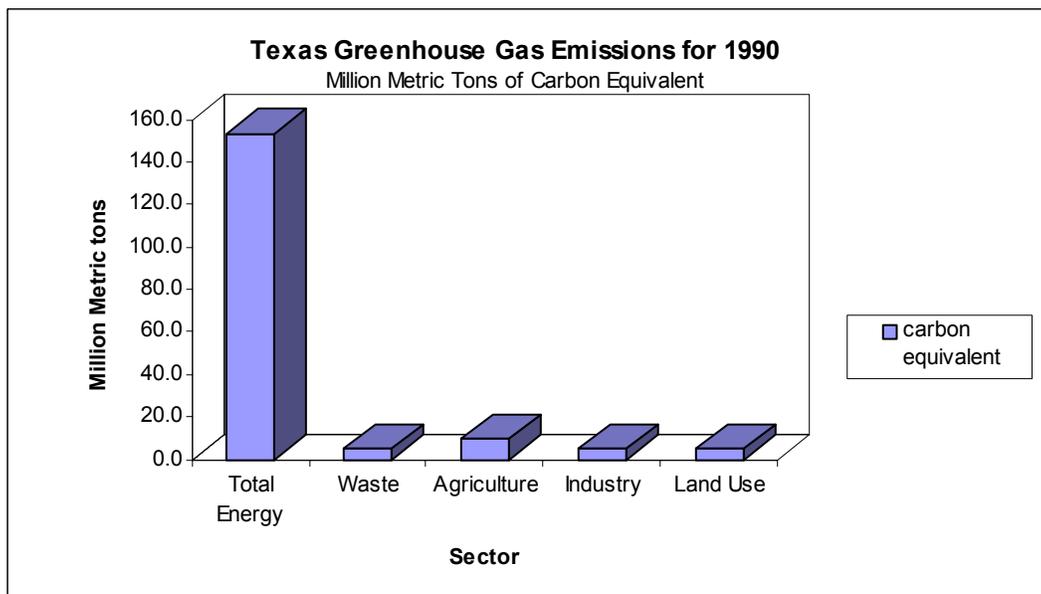


## TEXAS GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The report *Inventory of Texas Greenhouse Gas Emissions and Sinks: 1990-1999* provides a streamlined inventory of greenhouse gas emissions and sinks for Texas for each year from 1990 through 1999.

The streamlined approach used to develop Texas' inventory includes (1) emissions from "key" sources and sinks chosen because they account for a large fraction of total national emissions and (2) emissions from additional sources, chosen because of their anticipated importance in the state and/or the feasibility of developing estimates due to readily available activity data. Key sources included in streamlined greenhouse gas inventories include: carbon dioxide emissions from fossil fuel combustion; methane from landfills; carbon fluxes from land-use change and forestry; methane emissions from enteric fermentation; methane and nitrous oxide emissions from manure management; and nitrous oxide emissions from agricultural soils. These sources typically represent nearly 90 percent of states' total greenhouse gas emissions.<sup>1</sup> The streamlined greenhouse gas inventory for Texas also includes estimates of emissions from coal mining, cement manufacture, oil and gas systems, adipic acid production, and rice cultivation. All of these sources are expected to account for more than 90 percent of Texas' greenhouse gas emissions.

Emissions for each source were estimated using methods from the *1999 Emission Inventory Improvement Program, Volume VIII: Estimating Greenhouse Gas Emissions*. According to these estimates, Texas' greenhouse gas emissions increased from 178 million metric tons of carbon equivalent (MMTCE) in 1990 to 189 MMTCE in 1999.

<sup>1</sup> Because these key sources do not account for total state emissions, the Texas Inventory should not be directly compared to other state inventories.

### Texas Greenhouse Gas Emissions for 1990

BY SECTOR	CO <sub>2</sub> (MMTCE)	Methane (MMTCE)	Nitrous Oxide (MMTCE)	HFCs, PFCs, and SF <sub>6</sub> (MMTCE)	Total GHG Emissions (MMTCE)
Energy - Residential	3.5	*	*	*	3.5
Energy - Commercial	3.3	*	*	*	3.3
Energy - Industrial	52.3	*	*	*	52.3
Energy - Transport	42.1	*	*	*	42.1
Energy - Utility	48.3	*	*	*	48.3
Energy - Exported Electricity	*	*	*	*	0.0
Energy - Other	*	3.9	*	*	3.9
<b>Total Energy</b>	<b>149.6</b>	<b>3.9</b>	*	*	<b>153.5</b>
<b>Waste</b>	*	<b>5.3</b>	*	*	<b>5.3</b>
<b>Agriculture</b>	*	<b>5.5</b>	<b>3.9</b>	*	<b>9.4</b>
<b>Industry</b>	<b>0.9</b>	*	<b>4.1</b>	*	<b>5.0</b>
<b>Land Use</b>	<b>4.8</b>	*	*	*	<b>4.8</b>
<b>Total</b>	<b>155.3</b>	<b>14.7</b>	<b>8.0</b>	*	<b>178.0</b>

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 principal greenhouse gas was carbon dioxide, comprising 570 million metric tons (155.3 MMTCE) in 1990. Other emissions in 1990 included methane with 2.57 million metric tons (14.7 MMTCE), and 0.09 million metric tons of nitrous oxide (8.0 MMTCE).

The majority of carbon dioxide emissions were from fossil fuel combustion (96%), with the remainder due to land-use change and forestry (3%) and cement manufacture (1%). Sources of methane emissions were landfills (36%), domesticated animals (31%), oil and gas systems (26%), manure management (5%), rice cultivation (2%), and coal mining (<1%). Nitrous oxide emissions were attributable to adipic acid production (51%), agricultural soil management (45%), and manure management (4%).

Texas emissions in 1990 were 10.4 MTCE per capita, compared to 1990 U.S. emissions of 5.2 MTCE per capita for the same emission sources.