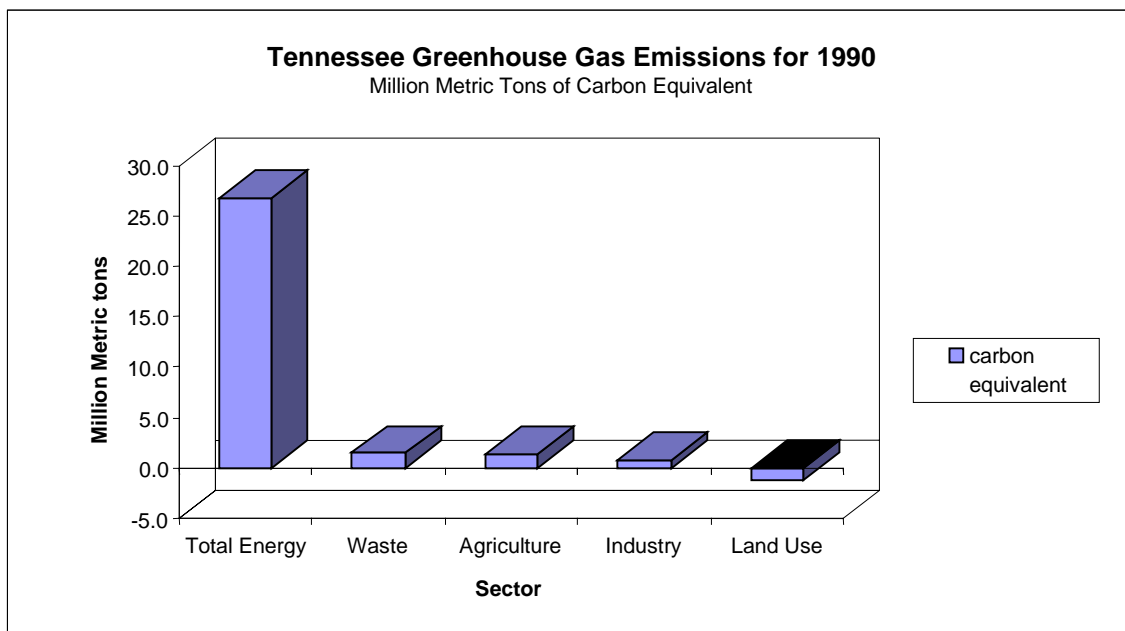


## TENNESSEE GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The report “*Greenhouse Gas Emissions Inventory for Tennessee, 1990*” provides a detailed inventory of greenhouse gas emissions and sinks for Tennessee in 1990. Emissions were estimated using methods from EPA’s 1992 guidance document **State Workbook: Methodologies for Estimating Greenhouse Gas Emissions**. In 1990, Tennessee emitted 29.1 million metric tons of carbon equivalent (MMTCE). Tennessee estimated emissions of 1.6 MMTCE from biomass fuels, and from other sources not included in the workbook. Emissions from these sources are not included in the reported total or in the table below.<sup>1</sup>

The principal greenhouse gas was carbon dioxide, comprising 94.3 million metric tons (26.0 MMTCE). Other emissions included 0.51 million metric tons of methane (2.9 MMTCE), and less than 3 thousand metric tons of nitrous oxide (0.2 MMTCE).

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<sup>1</sup> Note that the state of the art emission inventory method has advanced since Tennessee completed its inventory; therefore, we have made the following adjustments to Tennessee’s emission estimates. First, we excluded emission estimates for sources not covered by the most recent inventory guidance (<http://www.epa.gov/tnchie1/eiip/techrep.htm#green>). These emissions include methane from range cattle. Second, we used updated carbon coefficients for some fuel types. Third, we used updated values for global warming potentials.

### Tennessee Greenhouse Gas Emissions for 1990

SECTOR	CO <sub>2</sub> (MMTCE)	Methane (MMTCE)	Nitrous Oxide (MMTCE)	HFCs, PFCs, and SF6 (MMTCE)	Total GHG Emissions (MMTCE)
Energy - Residential	0.9	*	*	*	0.9
Energy - Commercial	0.9	*	*	*	0.9
Energy - Industrial	4.3	*	*	*	4.3
Energy - Transport	8.4	*	*	*	8.4
Energy - Utility	12.0	*	*	*	12.0
Energy - Exported Electricity	*	*	*	*	*
Energy - Other	0.03	*	*	*	0.03
<b>Total Energy</b>	<b>26.4</b>	<b>0.3</b>	*	*	<b>26.8</b>
<b>Waste</b>	*	<b>1.5</b>	*	*	<b>1.5</b>
<b>Agriculture</b>	*	<b>1.1</b>	<b>0.2</b>	*	<b>1.3</b>
<b>Industry</b>	<b>0.7</b>	*	*	*	<b>0.7</b>
<b>Land Use</b>	<b>-1.2</b>	*	*	*	<b>-1.2</b>
<b>TOTAL</b>	<b>26.0</b>	<b>2.9</b>	<b>0.2</b>	*	<b>29.1</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 major source of carbon dioxide emissions was fossil fuel combustion (97%), the majority of which is utility coal. Carbon dioxide sinks (i.e., an increase in forest carbon storage) offset about 4% of the total carbon dioxide emissions. Sources of methane emissions were landfills (51%), domesticated animals (27%), coal mining and natural gas production (11%) and manure management (10%). Nitrous oxide emissions were attributable to fertilizer use and agricultural crop wastes.

Tennessee's emissions in 1990 were 6.0 MTCE per capita, compared to 1990 U.S. emissions of 6.4 MTCE per capita.