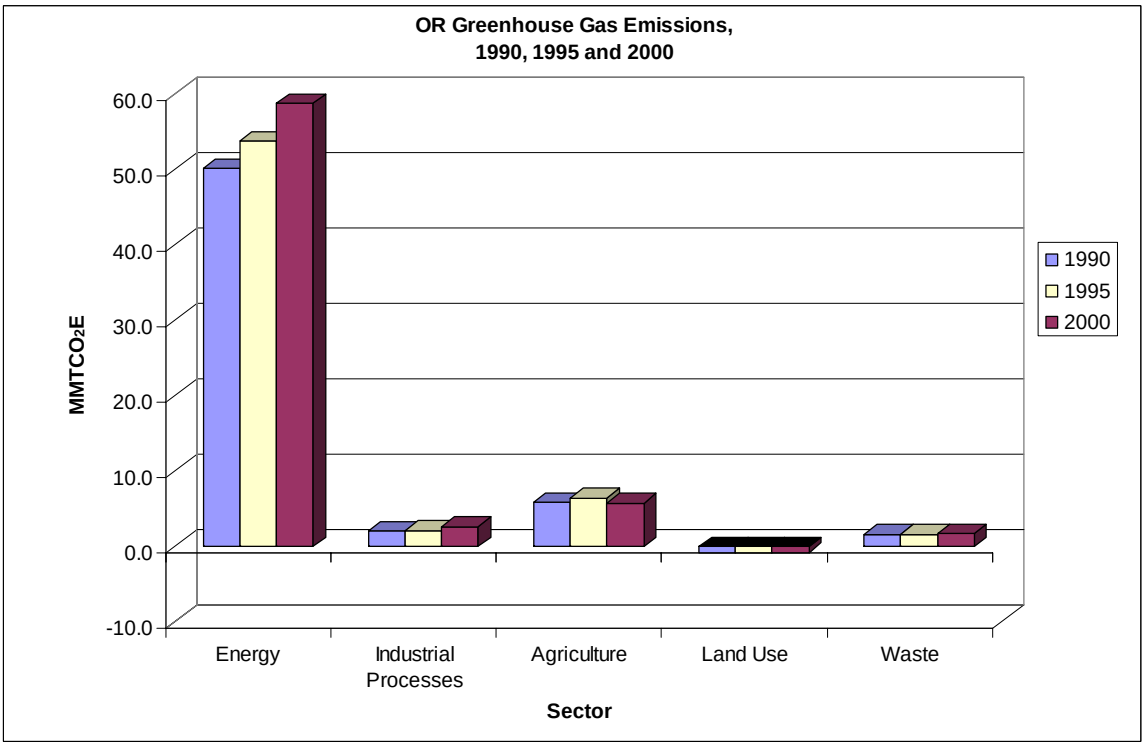
OREGON GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The report *Oregon Strategy for Greenhouse Gas Reduction* prepared by the Governor's Advisory Group on Global Warming provides a detailed inventory of greenhouse gas emissions and sinks in Oregon.[1]

In 1990, Oregon emitted GHGs in the amount of 58.7 million metric tons carbon dioxide equivalent ($MMTCO_2E$). In 1995, GHG emissions had increased by 7 percent from 1990 levels and by 2000 had increased by 16 percent from 1990 levels to 67.9 $MMTCO_2E$. Emissions from industrial processes, such as the manufacture of cement, increased by 30 percent between 1990 and 2000. In this same time period, emissions from the waste sector increased by 6 percent while emissions from agriculture decreased slightly by 2 percent. Emissions from the energy sector increased by 17 percent from 1990 levels to 58.7 $MMTCO_2E$ in 2000, mostly due to an increase in carbon dioxide from fossil fuel combustion.

The majority of GHG emissions were carbon dioxide (CO_2) (84 percent of net emissions) followed by methane (CH_4) (7 percent of net emissions). Emissions of nitrous

[1] Although Oregon used the EPA's State Inventory Tool (SIT) to calculate its inventory, emissions estimates from the inventory report showed significant differences from EPA estimates calculated for comparison using default data for Oregon in the SIT. Significant differences appeared in the following categories: energy, industrial processes, waste, and land use change. Possible causes for these differences include: methodological changes to the SIT, namely Oregon's decision to estimate greenhouse gases associated with electricity generation based on the state's electricity consumption, rather than electricity production; inclusion of additional or fewer sub-sources in the state inventory; and use of state-generated data rather than defaults.

oxide (N_2O), most of which were from agricultural soil management, contributed to 6 percent of net GHG emissions in 2000.

1990	CO_2 ($MMTCO_2E$)	CH_4 ($MMTCO_2E$)	N_2O ($MMTCO_2E$)	HFCs, PFCs, and SF_6 ($MMTCO_2E$)	Total ($MMTCO_2E$)
Energy	48.5	0.8	0.7	*	50.0
Industrial Processes	0.3	*	*	1.7	2.0
Agriculture	*	2.3	3.5	*	5.8
Land Use	-0.8	*	*	*	-0.8
Waste	0.3	1.2	0.1	*	1.6
Net Emissions	**48.3**	**4.3**	**4.3**	**1.7**	**58.7**

1995	CO_2 ($MMTCO_2E$)	CH_4 ($MMTCO_2E$)	N_2O ($MMTCO_2E$)	HFCs, PFCs, and SF_6 ($MMTCO_2E$)	Total ($MMTCO_2E$)
Energy	51.9	0.8	0.9	*	53.6
Industrial Processes	0.3	*	*	1.8	2.1
Agriculture	*	2.5	3.9	*	6.4
Land Use	-0.8	*	*	*	-0.8
Waste	0.4	1.1	0.1	*	1.6
Net Emissions	**51.8**	**4.4**	**4.9**	**1.8**	**62.9**

2000	CO_2 ($MMTCO_2E$)	CH_4 ($MMTCO_2E$)	N_2O ($MMTCO_2E$)	HFCs, PFCs, and SF_6 ($MMTCO_2E$)	Total ($MMTCO_2E$)
Energy	57.0	0.8	0.9	*	58.7
Industrial Processes	0.6	*	*	2.0	2.6
Agriculture	*	2.5	3.2	*	5.7
Land Use	-0.8	*	*	*	-0.8
Waste	0.3	1.3	0.1	*	1.7
Net Emissions	**57.1**	**4.6**	**4.2**	**2.0**	**67.9**

Note: Totals may differ from the sum of the sources due to independent rounding.
An asterisk (*) indicates emissions of the gas from this sector were zero, insignificant, or not reported.
All emissions are reported in million metric tons of carbon dioxide equivalent ($MMTCO_2E$).

The Oregon state inventory does not include emissions or sinks resulting from forestry-related sources, such as forest sequestration, due to the lack of available data. Landfill carbon storage is thus included as the only source/sink in the land use sector,

which provided a sink of 0.8 $MMTCO_2E$ for the state, offsetting 1 percent of Oregon's gross GHG emissions.

Gross per capita emissions from Oregon were 20 $MTCO_2E$ in 2000.[2] This level was considerably less than the gross national per capita average of 25 $MTCO_2E$ for the same year.

[2] The state per capita emissions value is quoted in the Oregon Inventory report and is reflective of Oregon's methodological decision to include emissions from electricity consumption in state rather than electricity production. Therefore, this per capita value subtracts emissions associated with exported electricity.