

**STATE ENVIRONMENTAL HEALTH INDICATORS COLLABORATIVE (SEHIC)
AIR QUALITY INDICATORS**

Indicator: A5: Climate Change

Measure(s): A5.1: CO₂-Equivalent Greenhouse Gas Emissions Per Capita, by Sector

MEASURE DESCRIPTION

A5.1: CO₂-Equivalent Greenhouse Gas Emissions Per Capita	
Last updated:	September 30, 2008
Measurement units:	Million metric tons per capita
Geographic scale:	State, by sector (transportation, farming, etc.)
Time scale:	Annual, 2000 through most recent year
Significance/background:	Global Greenhouse (GHG) emissions, including carbon dioxide (CO ₂), methane, and nitrous oxide contribute to global warming and are projected to have profound effects on the world's ecosystem and public health, if allowed to continue unchecked. In 2004, California produced 492 million metric tons of CO ₂ -equivalent GHG emissions. The transportation sector contributes to the largest proportion of total GHG emissions in CA.
Rationale:	Much of global warming is due to human activities which release carbon dioxide and other gases. Trends in these emissions are necessary to track to monitor progress in reducing global warming.
Limitations:	Need to estimate CO ₂ emissions from electrical sources imported into States
Data resources:	California Climate Change Portal http://www.climatechange.ca.gov/index.html ; U.S. EPA climate change http://www.epa.gov/climatechange/emissions/downloads/CO2FFC_2002.pdf (emissions by state)
Data limitations:	Emissions are estimates and are subject to error
Related sets of data:	
Related SEHIC measures:	Asthma and other respiratory diseases; heart disease
Related Indicators (from other projects):	
Recommendations:	
Additional Data to collect:	

Notes:

Indicator already reported by U.S. EPA

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HOW-TO GUIDE: A5.1

Obtain Data from the EPA Website:

1. Go to the EPA climate change web site document:
http://www.epa.gov/climatechange/emissions/downloads/CO2FFC_2004.pdf
2. Locate your **State** and **CO₂-equivalent emissions by sector** in the table on the screen.

Create a SEHIC report in Excel:

3. In a new Excel file, label columns A-D: state; sector; year of interest; and CO₂ emissions.
4. Record CO₂ emissions for each sector by year.
5. Save the file as [state abbreviation]Data_AQ5.1.
6. Copy and paste the data into the SEHIC Indicator Report Template.xls file, in the worksheet named A5.1.