



Greenhouse Gas Emissions

The extent of the damage that we have caused to our planet is debatable. The fact that there is no "Planet B" is not.

DEFINITION

Greenhouse Gas Emissions are gas emissions into the Earth's atmosphere generated by **human activity**. Besides contaminating the atmosphere, these emissions trap heat that makes the planet warmer.

The greenhouse gases are:

- **Carbon Dioxide** (CO₂), caused by the use of fossil fuel and direct human activities, like deforestation and industrial processes.
- **Methane**, caused by agriculture, waste management, energy use, and biomass burning.
- **Nitrous oxide**, caused mainly by fertilizer use in agriculture.
- **Fluorinated gases**, caused by industrial processes, refrigeration, and certain products.

The global activities that produce the most greenhouse gases and their percentages of the total emissions into the atmosphere are:

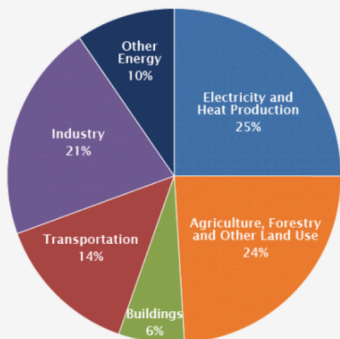
- 25% - Electricity and heat production.
- 24% - Agriculture, forestry, and other land use activities.
- 21% - Industry.
- 14% - Transportation.
- 6% - Buildings.
- 10% - Other activities (percentages will vary in other information sources).

Buildings produce 6% of all gas emissions.

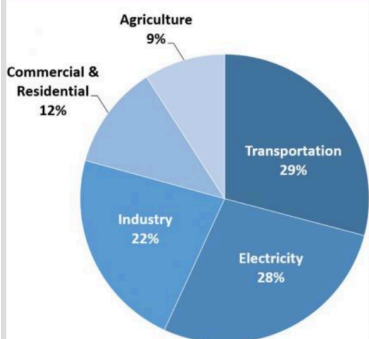
When researching the types of pollution caused by a building's materials and systems, if possible, consider:

- The pollution caused by the building's materials and systems sourcing, manufacture, and installation.
- The pollution caused by the building's systems when in use.
- The pollution caused by the building's materials and systems' removal and disposal.

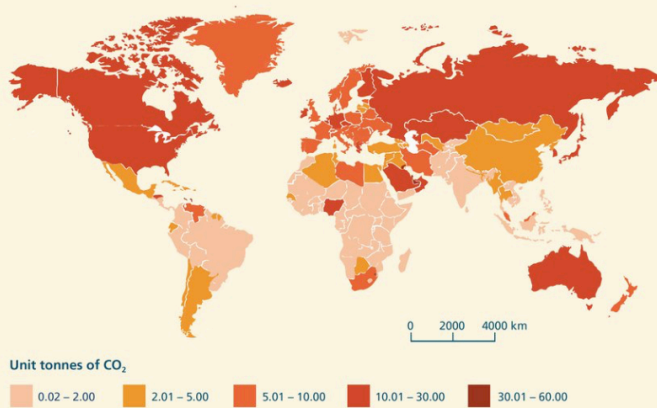
Global Greenhouse Gas Emissions by Economic Sector



Total U.S. Greenhouse Gas Emissions by Economic Sector in 2017



CO₂ emissions per capita in 2007



Information on greenhouse gas emissions in the US by type, amount, and cause, is published by EPA in an annual report called "Inventory of U.S. Green Gas Emissions and Sinks". You can download the report from https://www.epa.gov/sites/production/files/2019-09/documents/epa_non-co2_greenhouse_gases_rpt-epa430r19010.pdf.