

## EMISSION SOURCES

According to the World Resources Institute, carbon dioxide makes up 77% of all greenhouse gas emissions, with methane (14%) and nitrous oxide (8%) making up the bulk of the remainder. The largest annual emitters of greenhouse gases are as follows:

### ELECTRICITY AND HEAT

Worldwide electricity production and heat generation are the cause of 24.6% of total global emissions, with 9.9% of emissions from residential buildings and 5.4% from commercial property. This results in an estimated 10,269 million metric tons (MtCO<sub>2</sub>) released into the atmosphere each year.

### INDUSTRY

Industrial processes add up to 21% of global emissions, with the chemical industry accounting for 4.8%, followed by cement production at 3.8%, and iron and steel at 3.2%. An estimated total of 8,856 MtCO<sub>2</sub> are released by industry each year. (chemicals production at 2,013 MtCO<sub>2</sub>, cement 1,588 MtCO<sub>2</sub>, iron and steel 1,319 MtCO<sub>2</sub> and aluminium only 324 MtCO<sub>2</sub>.)

### DEFORESTATION

Land use change and forestry (deforestation, harvesting and land management) is contributing 18.3% of greenhouse gas emissions, resulting in 7,619 MtCO<sub>2</sub> of emissions annually.

### TRANSPORTATION

13.5% of emissions. Of this, 9.9% comes from traffic, 1.6% from aviation and 2.3% from rail, ship and other transport. Adding an estimated 5,743 MtCO<sub>2</sub> to the atmosphere.

### AGRICULTURE

Land cultivation and animal husbandry also accounts for 13.5% of emissions, including 5.1% from livestock and manure, meaning the agriculture sector, including soils management and methane emissions from livestock, creates an estimated 6,205 MtCO<sub>2</sub>.

### WASTE

Landfill, wastewater management and human sewage accounts for 3.6% of emissions, including 3% from landfill and 1.6% from waste water and other sources, releasing 1,484 MtCO<sub>2</sub>.

Source: CAIT