
# CLIMATE CHANGE AND GHG TRENDS

UNDERSTANDING THE SOURCES, EFFECTS, AND SOLUTIONS TO COMBAT CLIMATE CHANGE

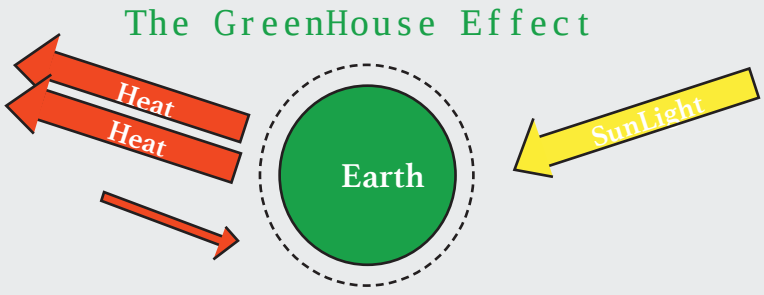
## WHAT ARE GREENHOUSE GASES?

Greenhouse gases (GHGs) like $CO_2$, methane ($CH_4$), and nitrous oxide ($N_2O$) trap heat in the atmosphere, causing global warming. Human activities, especially since the Industrial Revo lution, have significantly increased GHG concentrations.

**76%**
$CO_2$ makes up of emissions

**2%**
Fluorinated gases makes up only of emissions

### The GreenHouse Effect

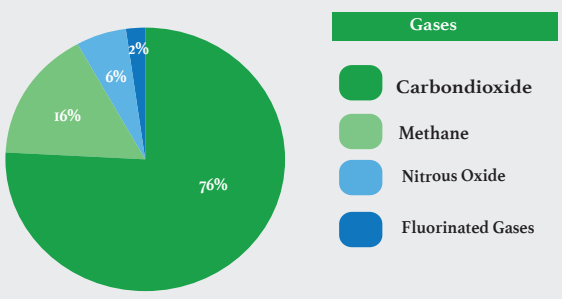



**73%**
Energy Production accounts for global emissions

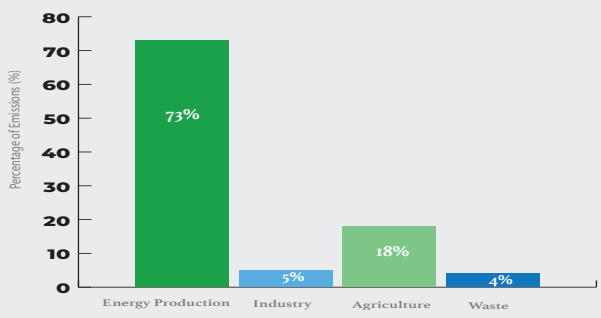
**4%**
Waste accounts for global emissions

## HOW MUCH ARE WE EMITTING?

### Global Emissions by Gas




### Emissions by Sector

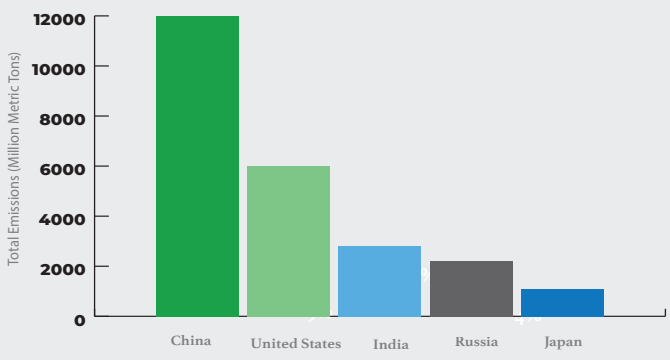



## TOP EMITTERS BY COUNTRY

**China, the U.S., and India** are the top three emitters, together responsible for over *50%* of global emissions.

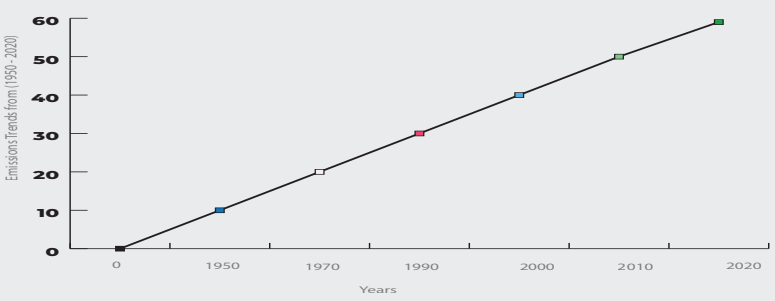
Per capita emissions vary significantly, with developed nations often having higher rates.

### Total Emissions




## ARE EMISSIONS INCREASING OR DECREASING?

### Emissions trends from 1950 to 2020




**Global emissions** have risen steadily since the ***1950s***. However, some regions, like the *EU*, have seen a decline due to strict climate policies.

## WHAT CAN WE DO?

### At the Policy Level

Adoption of renewable energy, carbon pricing, and international agreements like the Paris Accord.

### At the Individual Level

| Action | $CO_2$ Reduction Potential (kg/Yrs) |
|---|---|
| Use Public Transport | 1,200 |
| Eating a Plant-Based .D | 1,500 |
| Installing Solar Panels | 3,000 |

## WHY DOES THIS MATTER?

### Environment Impacts

Rising temperatures, melting glaciers, more frequent extreme weather events, and rising sea levels.

### Human Impacts

Effects on agriculture, health, and living conditions, especially in vulnerable regions.

## THE TIME TO ACT IS NOW

We all have a role to play in addressing climate change. By understanding emissions, their impact, and the solutions available, we can work toward a sustainable future.