

India recorded the highest greenhouse gas emissions for 2024

However, in per capita terms, India's emissions remained less than half the global average

DATA POINT

The Hindu Data Team

In 2024, India registered the largest absolute increase in greenhouse gas (GHG) emissions among all countries compared to the previous year. India was the third largest overall emitter of GHGs in 2024, behind only China and the United States, in absolute terms. However, its per capita GHG emissions remained less than half the global average, highlighting the country's relatively low emissions intensity despite rapid absolute growth.

Worldwide, GHG emissions are on an increasing trend. In 2024, 57,700 metric tonnes of CO₂ (MtCO₂e) of anthropogenic GHG was emitted, the highest on record (Chart 1).

Fossil CO₂ emissions from burning coal, oil, and natural gas accounted for 69% of GHG emissions in 2024 (Chart 2). Emissions from power generation were the largest single source for fossil CO₂. This was followed by emissions from industrial combustion, transportation, and fuel production. Anthropogenic CH₄ (methane) emissions – emitted majorly during agricultural and waste management procedures – accounted for 16% of GHG emissions, the second largest share. Deforestation and land-use change also amounted significantly to this year's rise in emissions.

In 2024, India's per capita GHG emissions was 3 tCO₂e, less than half of the global average of 6.4 tCO₂e (Chart 3a). However, India's per capita GHG emissions grew at 3.7% between 2023 and 2024, much higher than the global average of 0.04% increase (Chart 3b).

The 57,700 MtCO₂e worth of GHG emitted globally in 2024 was 1,500 MtCO₂e higher than 2023. India contributed 165 MtCO₂e to this rise, the highest among all nations. China stood second, contributing 126 MtCO₂e (Chart 4).

Carbon climb

The data for the charts were sourced from the United Nations Environment Programme (2025)'s 'Emissions Gap Report 2025: Off target – Continued collective inaction'

Chart 1: Total net anthropogenic greenhouse gas emissions by gas, 1990–2024

TOTAL GHG EMISSIONS 1990–2024

In 2024, 57,700 metric tonnes of CO₂ (MtCO₂e) of anthropogenic (due to human activities) GHG was emitted, the highest on record

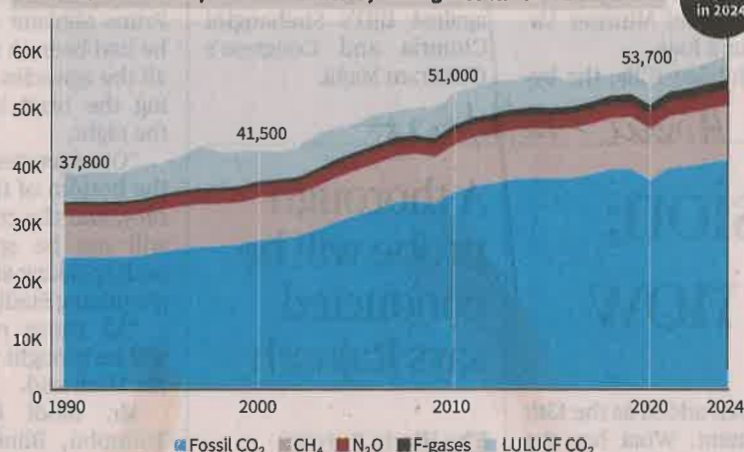


Chart 2: Total net greenhouse gas emissions by gas, sector, and fossil or non-fossil category in 2024

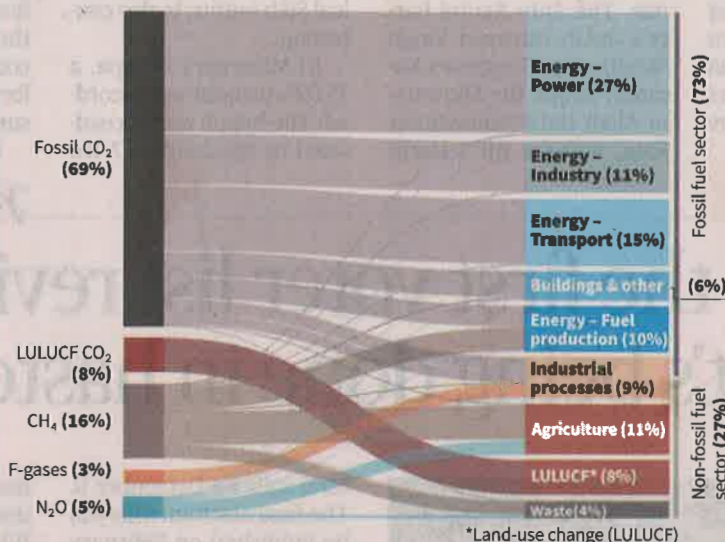


Chart 3A & 3B: Per capita greenhouse gas emissions of the six largest emitters (tCO₂e/capita/year).

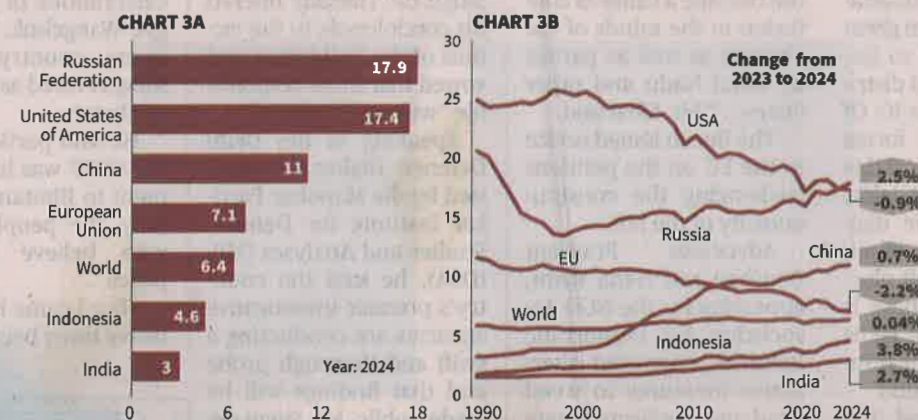


Chart 4: Contributions to the increase in GHG emissions in 2024 from 2023 levels of select actors

