



Our accountability in reference to Global Warming

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An invited talk delivered over the online conference entitled

“Cool Ideas for a Hot Planet”

Organized by unmeshan.org.in on the occasion of
World Environment Day, 5th June 2026

Wherefrom we started ?

World Environment Day was established and first observed by the United Nations in 1972, and since then, it has become a global movement for encouraging people round the globe to protect nature and fight against environmental problems .

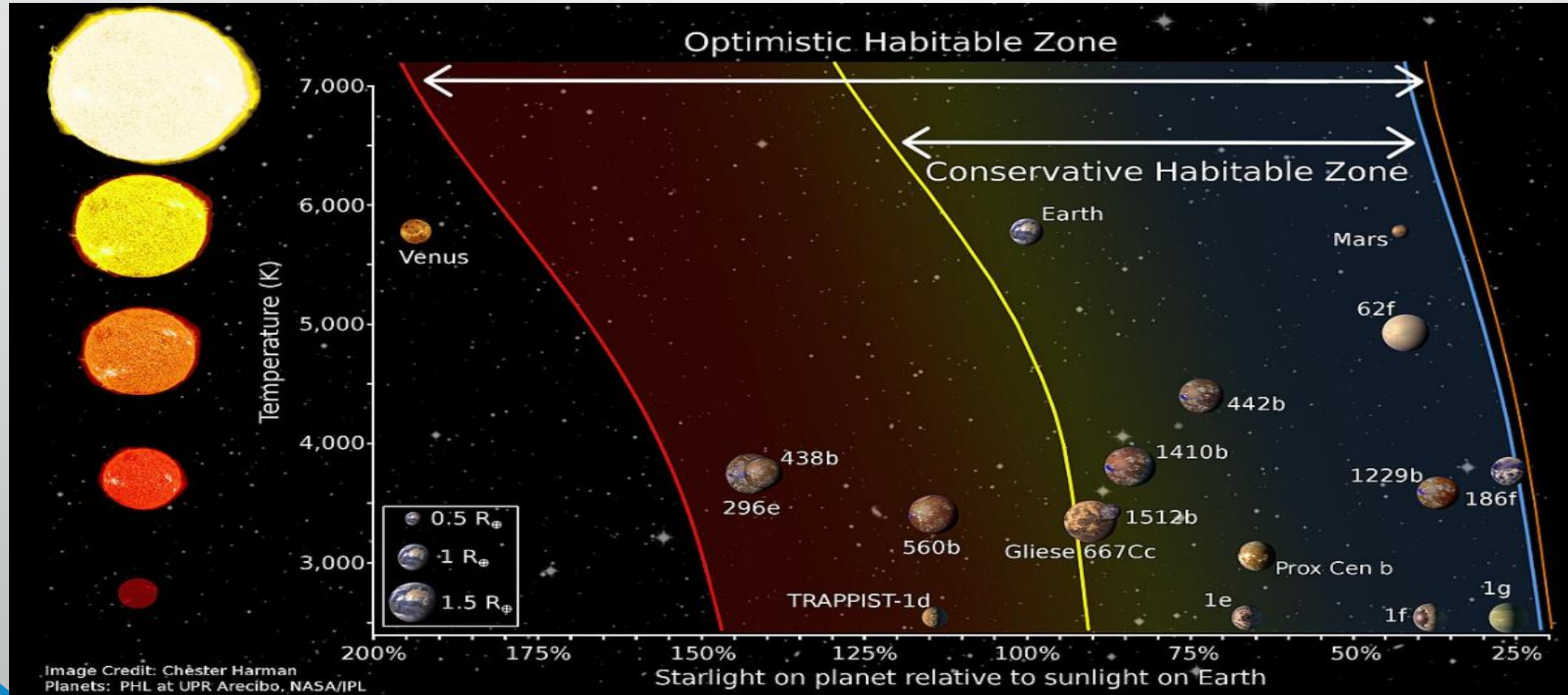
Is there anything special for this year ?

This year, the *World Environment Day* 2026, is hosted by the country Azerbaijan
&
the theme is
“#NowFor Climate”

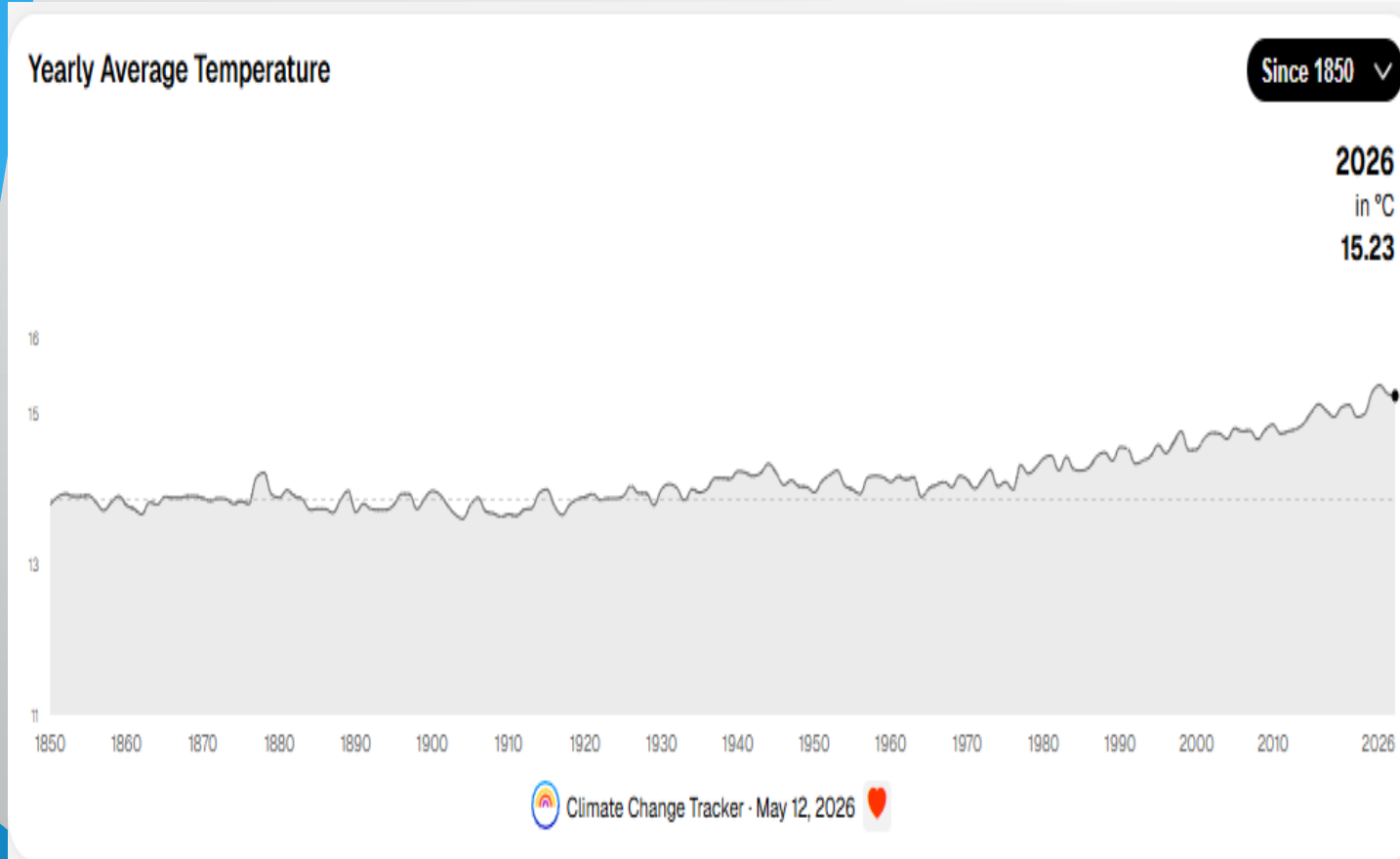
Other global days to observe with a mission protect our Planet

March 21	International Day of Forests
March 22	World Water Day
March 30	Earth Hour
April 22	Earth Day
May 22	International Day of Biological Diversity
June 5	World Environment Day
June 8	World Ocean Day
June 17	World Day to Combat Desertification
September 16	International Day for the Preservation of the Ozone Layer
October 4	World Wildlife Day
October 16	World Food Day
December 11	International Mountain Day

Status : Our position within habitable zone



What is Global Warming ?



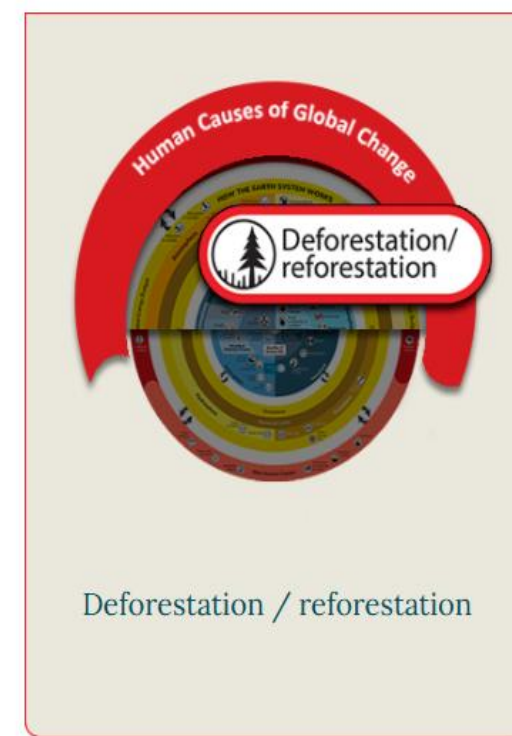
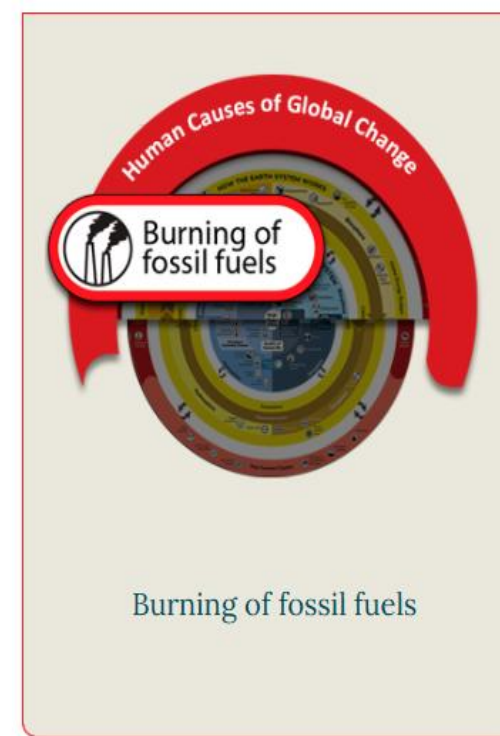
Global warming is the long-term rise in Earth's average temperature, causing climate change, melting ice, extreme weather etc.

Why to bother about Global Warming ?

Impacts

1. Melting ice-caps and glaciers
2. Droughts and heat waves
3. Wildfires and deforestation
4. Flooded cities and raising sea level
5. Threats to agriculture , water resources ,health
6. Displacement of communities for survival.
7. Changes in animal migration and lifestyle .
8. Stronger storms
9. Modulation of climate zones .

Status : Human activities & global warming



Burning of fossil fuels

<https://ugc.berkeley.edu/>



The burning of fossil fuels refers to the burning of oil, natural gas, and coal to generate energy. We use this energy to generate electricity, and to power transportation (for example, cars and planes) and industrial processes. Ever since the invention of the first coal-fired steam engines of the 1700s, our burning of fossil fuels has steadily increased. Across the globe each year we now burn over 4,000 times the amount of fossil fuels burnt during 1776. The effects of the burning of fossil fuels, especially carbon dioxide, are having far-reaching effects on our climate and ecosystems.



Innovation



Pollutants and waste



Population growth



Resource extraction

Status : Human causes activities
and global warming

<https://ugc.berkeley.edu/>



Urbanization

Greenhouse gases and their sources

- CO₂ : Combustion of fossil fuels
- CH₄: *Human activities* : account for ~ 60%.
 - i) Fossil fuels : storage and processing of natural gases and oils.
 - ii) Agriculture : cattle ,sheep ,goat during digestion. Manure management in lagoons or tanks
 - iii) Incomplete combustion of traditional biomass and modern bioenergy systems

Natural Sources: account ~40% ;

Geological - volcanoes , ocean vents and termites activities .
- NxOy: i) Agricultural process (N₂O)
 - ii) Industrial process
- Fluorinated Gases : All are synthetic gases used in refrigeration, cooling and industrial process
 - Hydrofluoro carbon (HFCs)
 - Perfluoro carbon (PFCs)
 - Sulfur hexafluoride(SF₆)
 - Nitrogen trifluoride (NF₃)

Status

Global fossil fuel consumption

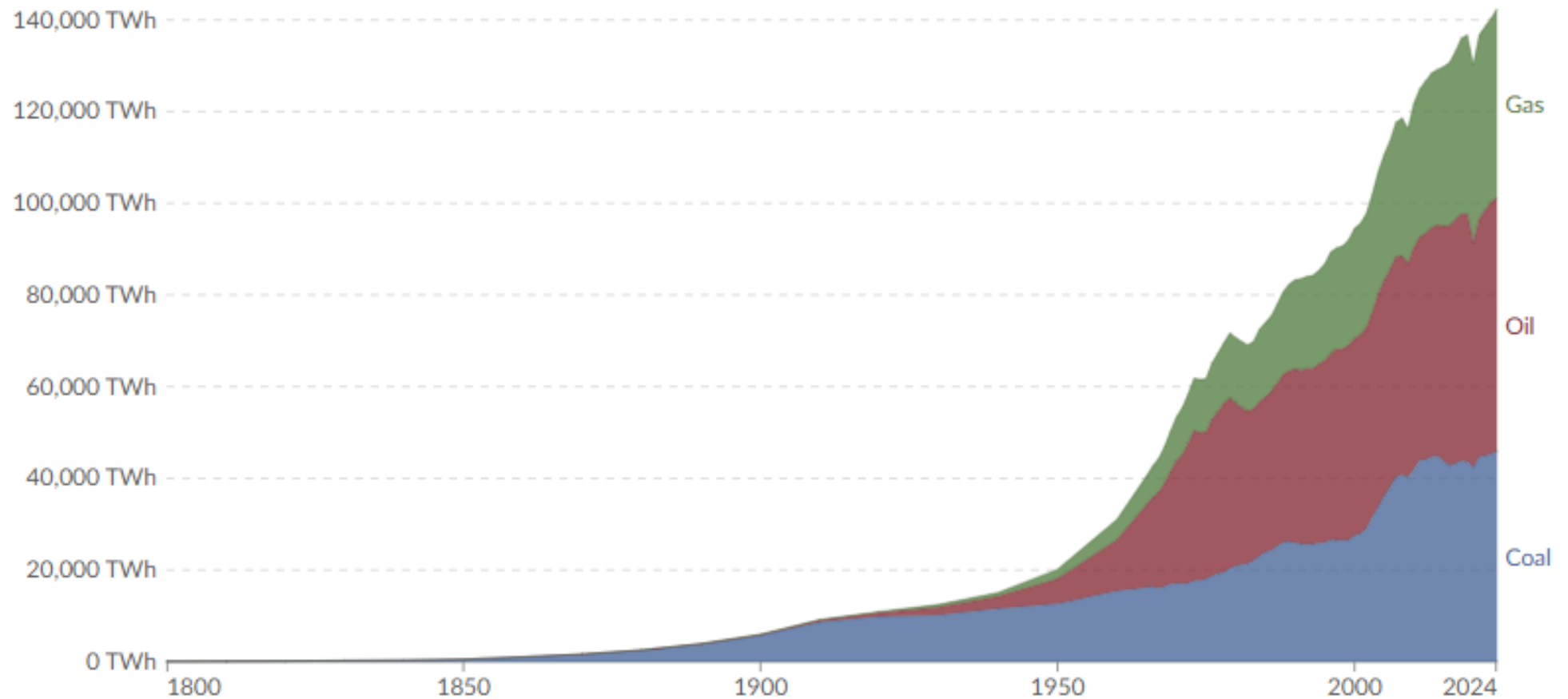
Measured in terawatt-hours of primary energy consumption.

Our World
in Data

Table

Area

Settings



1800

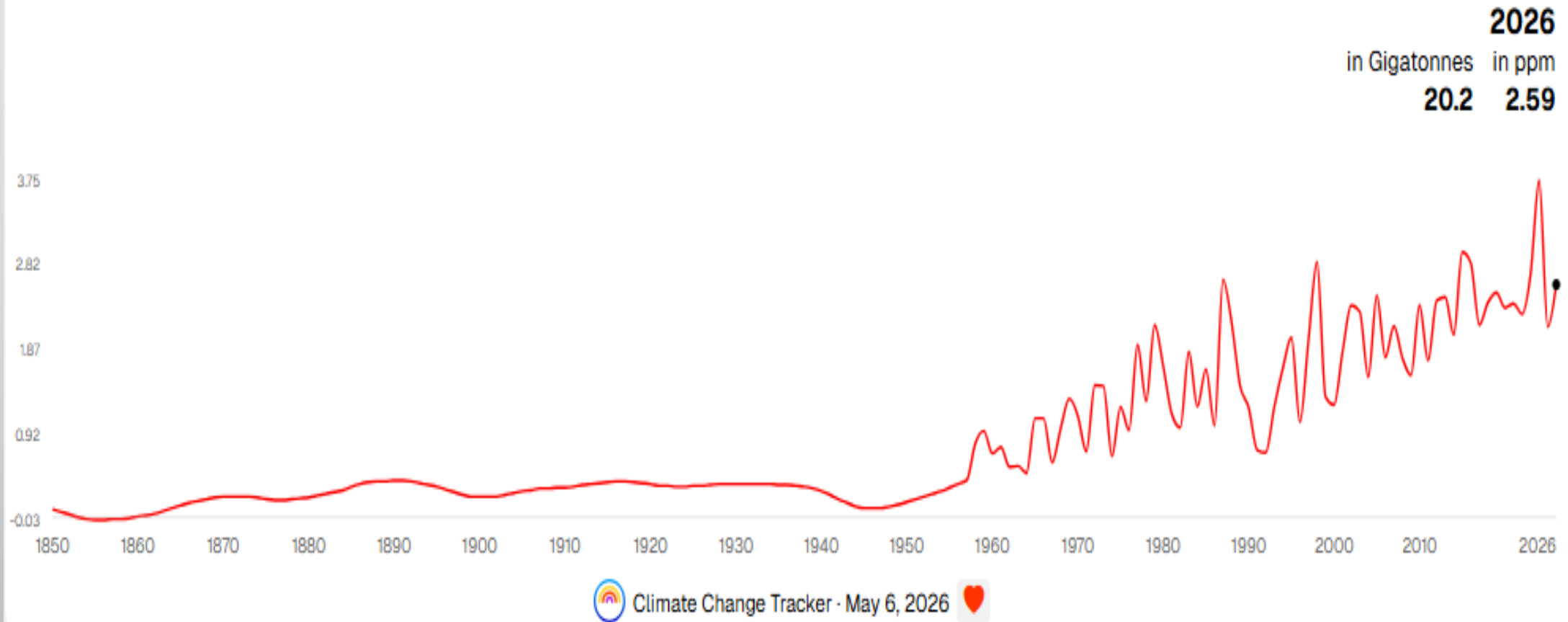


2024

Status

<https://climatechangetracker.org/>

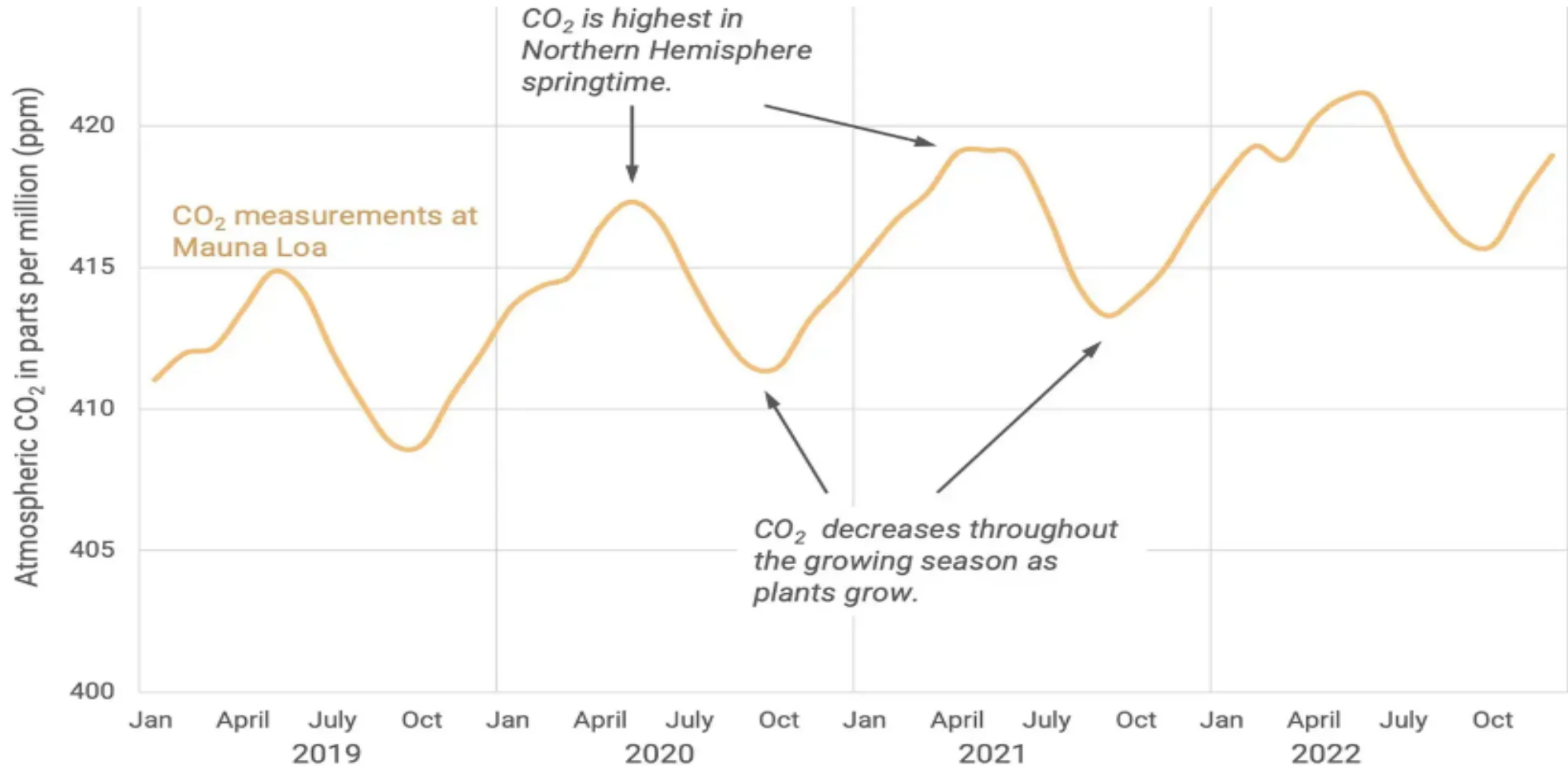
Yearly Atmospheric CO₂ Increase



NASA's study on CO₂ fixing by plants

<https://science.nasa.gov/earth/explore/earth-indicators/carbon-dioxide/>

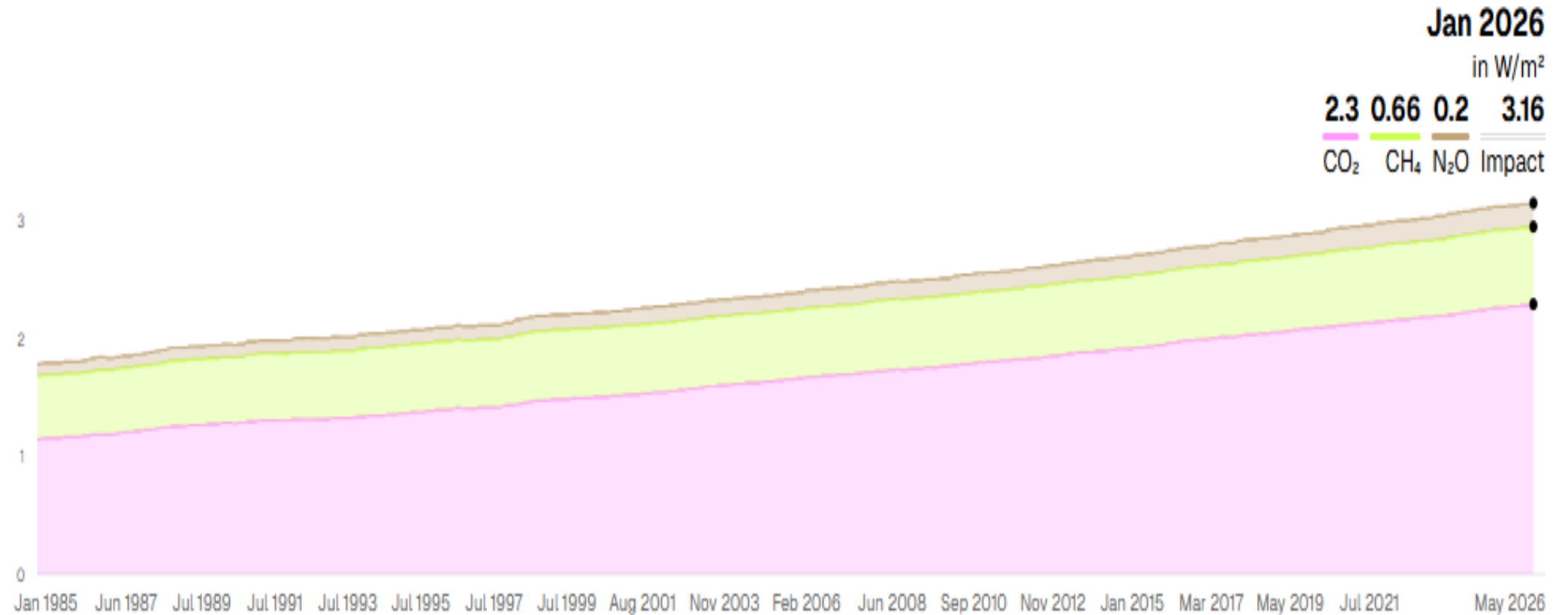
Atmospheric CO₂ Is Highest in the Spring, Lowest in Autumn



Status

<https://climatechangetracker.org/>

Monthly Greenhouse Gases' Impact on Energy Balance



Climate Change Tracker · May 6, 2026



Status

Fossil fuel consumption per capita, 2024

Our World
in Data

Fossil fuel consumption per capita is measured as the average annual consumption of energy from coal, oil and gas, in kilowatt-hours per person.

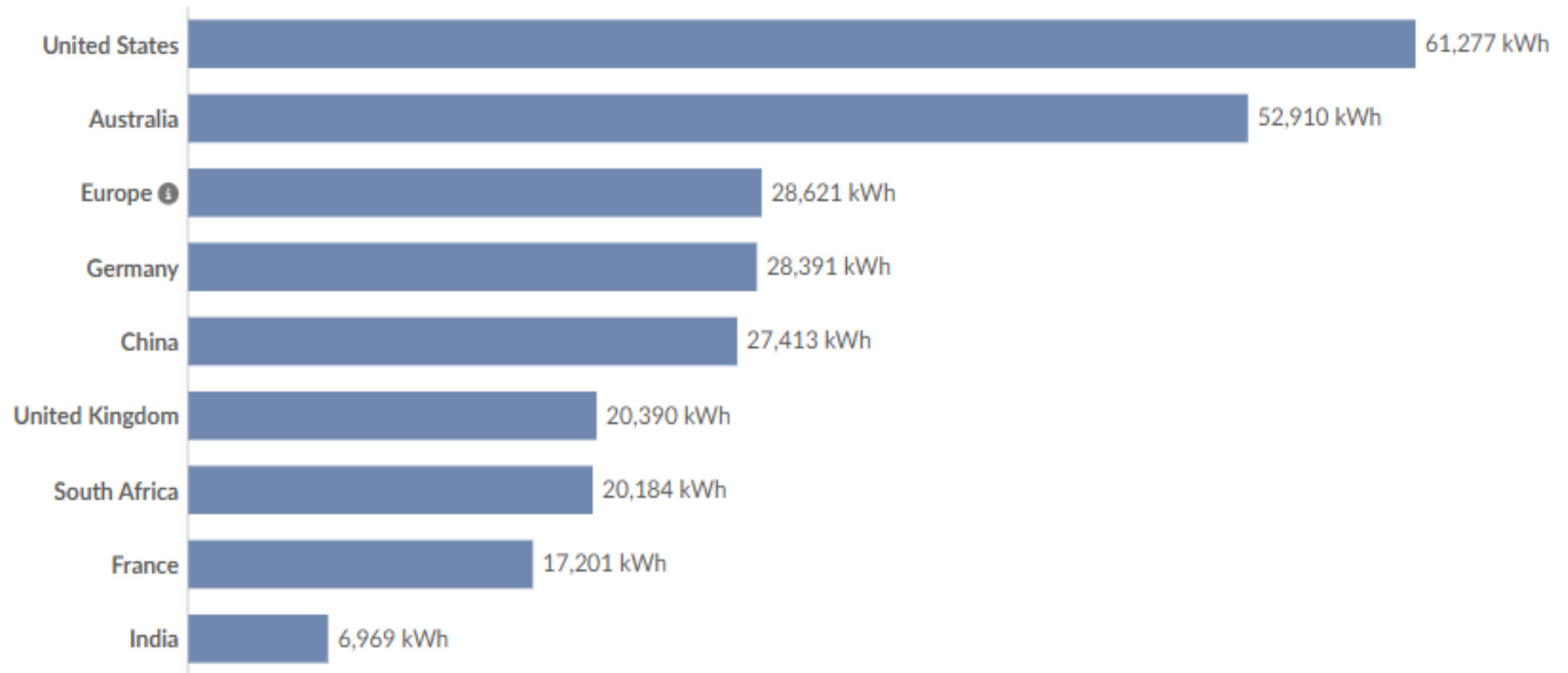
Table

Map

Line

Bar

Edit countries and regions



1965

2024

Status

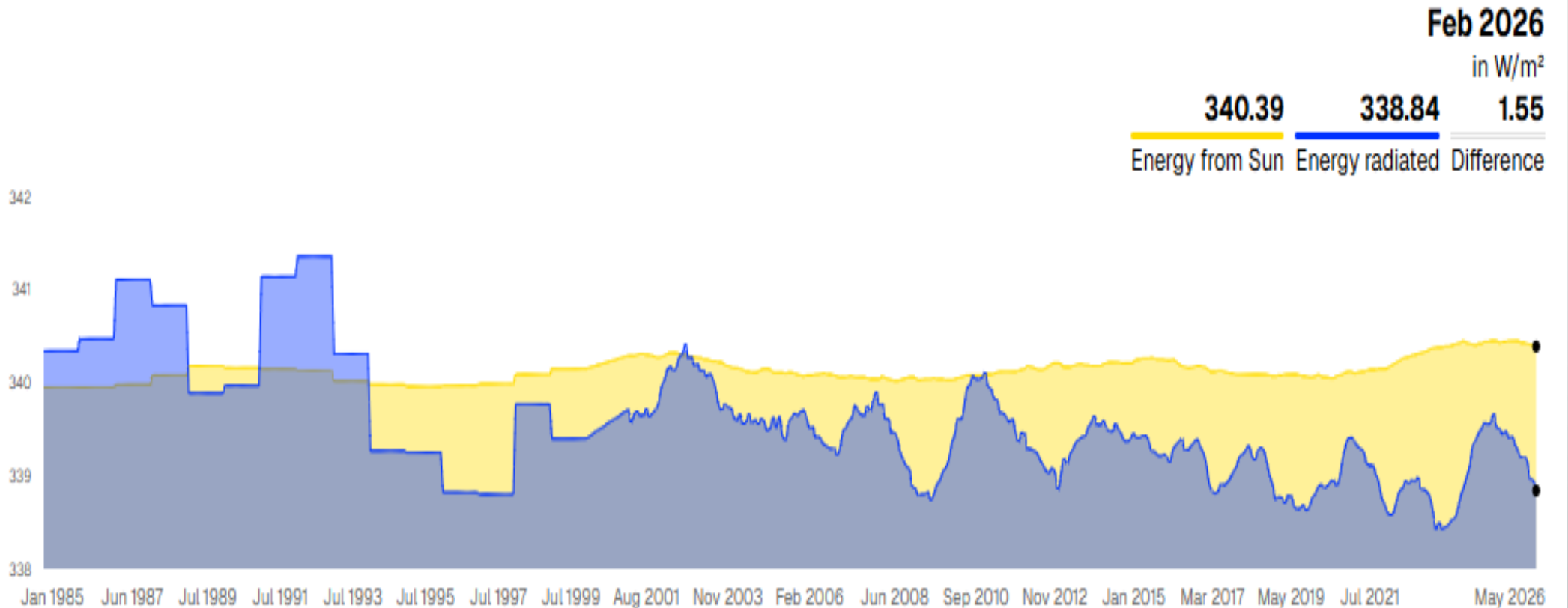
<https://greenbusinessbarbados.com/>

In 2018, road travel accounts for three-quarters of global CO₂ emissions. Electric vehicles in China produce 188.5 grams of carbon dioxide (CO₂) emissions per mile, the most of any country globally. In 2023, total CO₂ emissions from cars and vans amounted to 3.8 Gt, accounting for more than 60 of the road transport sector emissions. The global stock share of electric light-duty vehicles reached 3, avoiding around 850 kb/d (1600).

Status: Excess amount of greenhouse gases in the atmosphere resulting in long range energy imbalance

<https://climatechangetracker.org/>

Monthly Earth's Energy Imbalance



Status

Filert by per Capita Emissions:

● Negative Emissions: 0

● Low: 39

● Moderate: 52

● High: 39

● Very High: 24

● Extremely High: 36

China

CN

Continent: Asia

Population 1,419.32 Million

26.29% of Global Emissions

● **Extremely High** per Capita Emissions

➡ **+2.6%** Yearly Emissions Trend

Updated November 14,
2025

Dashboard ➡

United States of America

US

Continent: North America

Population 345.43 Million

11.29% of Global Emissions

● **Extremely High** per Capita Emissions

➡ **-0.6%** Yearly Emissions Trend

Updated November 14,
2025

Dashboard ➡

India

IN

Continent: Asia

Population 1,450.94 Million

7.8% of Global Emissions

● **Moderate** per Capita Emissions

➡ **+2.8%** Yearly Emissions Trend

Updated November 14,
2025

Dashboard ➡

Brazil

BR

Continent: South America

Population 212 Million

5.08% of Global Emissions

● **Extremely High** per Capita Emissions

➡ **+1.7%** Yearly Emissions Trend

Updated November 14,
2025

Dashboard ➡

Russian Federation

RU

Continent: Europe

Population 144.82 Million

4.99% of Global Emissions

● **Extremely High** per Capita Emissions

➡ **+0.7%** Yearly Emissions Trend

Updated November 14,
2025

Dashboard ➡

Indonesia

ID

Continent: Asia

Population 283.49 Million

3.43% of Global Emissions

● **High** per Capita Emissions

➡ **-1.6%** Yearly Emissions Trend

Updated November 14,
2025

Dashboard ➡

Status

Table 1: Vehicular Growth Rate in India (1951-2020)

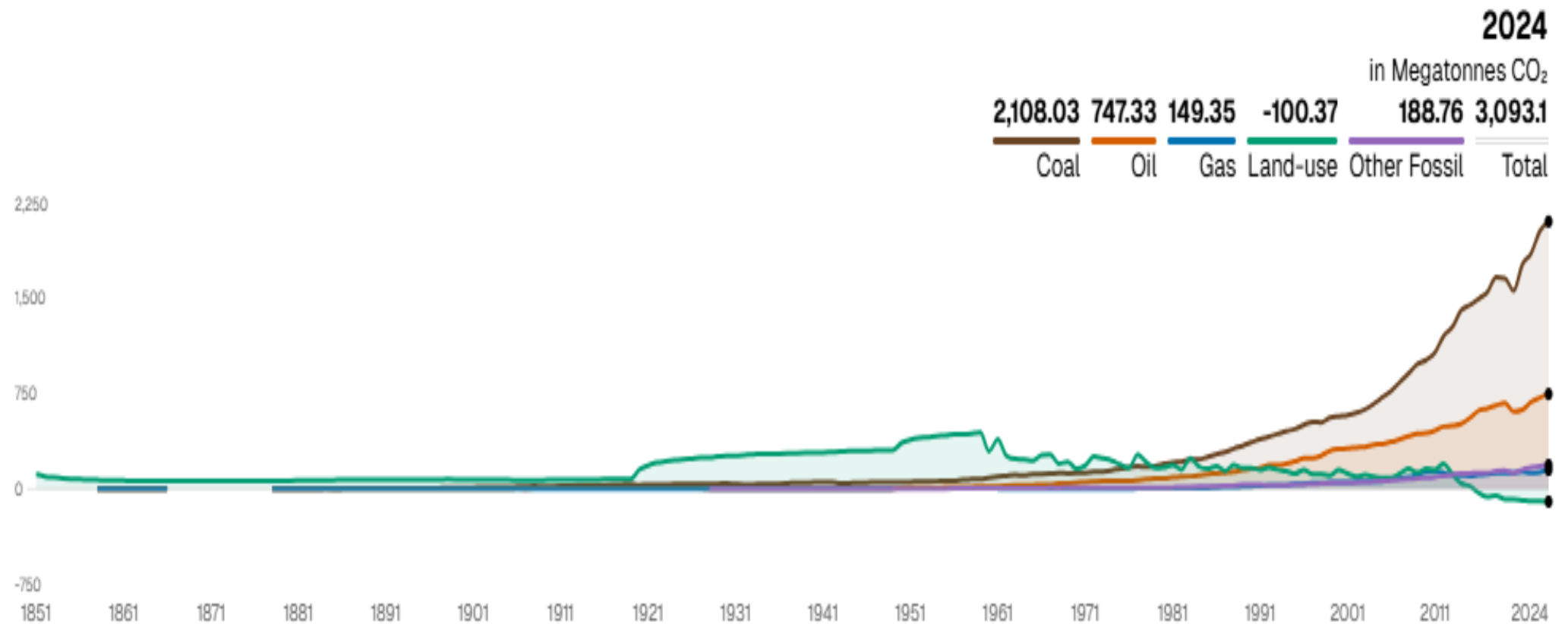
Year	Two-Wheelers	Cars, Jeeps & Taxis	Buses	Goods Vehicles	Others	Total (Million)
	(as % of total vehicle population)					
1951	8.8	52.0	11.1	26.8	1.3	0.3
1961	13.2	46.6	8.6	25.3	6.3	0.7
1971	30.9	36.6	5.0	18.4	9.1	1.9
1981	48.6	21.5	3.0	10.3	16.6	5.4
1991	66.4	13.8	1.5	6.3	11.9	21.4
2001	70.1	12.8	1.2	5.4	10.5	55.0
2011	71.8	13.6	1.1	5.0	8.5	141.8
2017	73.86	13.30	0.74	4.84	7.27	253.0
2018	74.40	13.37	0.71	4.69	6.85	272.60
2019	74.8	12.99	0.69	4.65	6.85	295.8
2020	74.6	13.37	0.67	4.37	6.89	326.3

Source: Author's own, using data from MoRTH Handbook 2020-21.^[8]

Status

<https://climatechangetracker.org/>

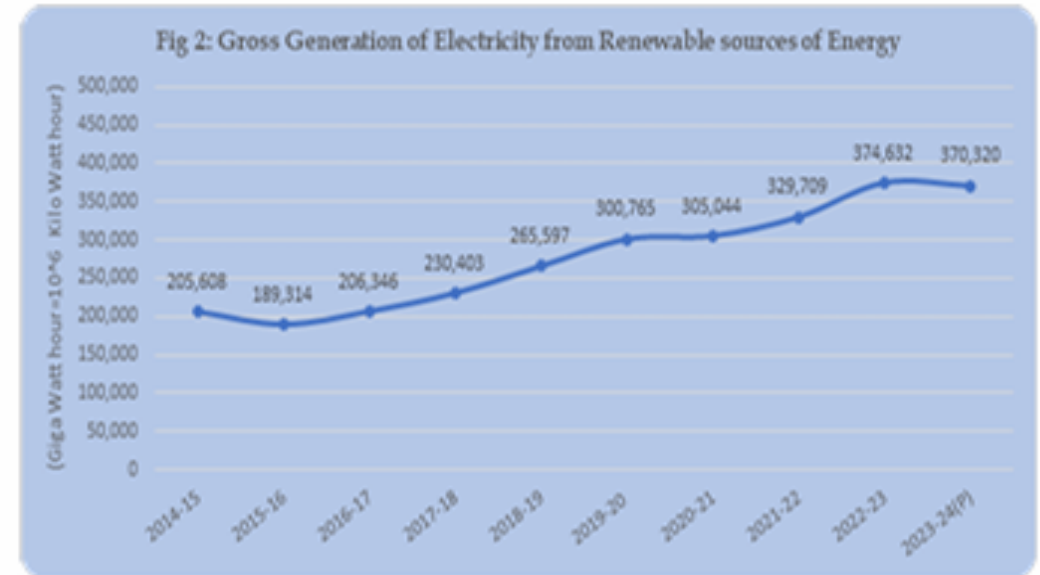
IN India's Sources of CO₂ Emissions



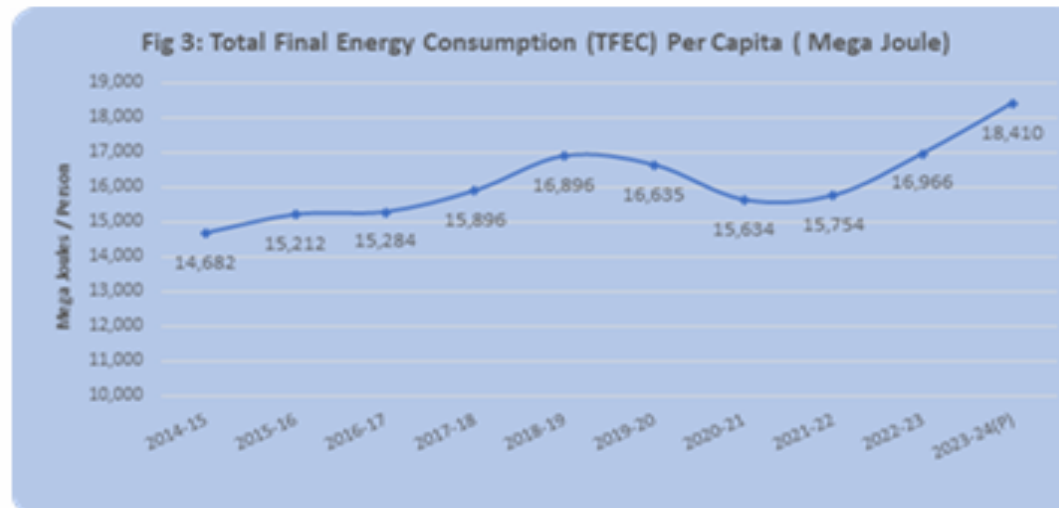
Status : India

<https://static.pib.gov.in/>

- India has witnessed substantial growth in its installed capacity for electricity generation from renewable sources.
- As of March 31, 2024, the installed capacity reached **198,213 MW**, significant increase from the 81,593 MW recorded on March 31, 2015.
- This represents a Compound Annual Growth Rate (CAGR) of **10.36%** over these years.



Q7: What trends have been observed in India's per-capita energy consumption and electricity transmission losses?



- India has seen a consistent increase in per-capita energy consumption from **14,682 Mega Joule per person** in 2014-15 to **18,410 Mega Joule per person** in 2023-24, indicating a CAGR of 2.55%.
- Simultaneously, there has been a notable improvement in the efficiency of electricity utilization, with transmission and distribution losses decreasing from around 23% in 2014-15 to approximately 17% in 2023-24.

All possible processes that protect nature need to be adopted without delay

Final call

All practices that harm nature need to be minimized without delay

- Solar Cell
- Nuclear Fuels
- EV Car Scooter
- Wind Power
- Hydrogen Gas
- Hydro-electric Power
- Plantation



- Air Conditioners
- Petrol, diesel , natural gas
- Deforestation
- Water pollution (Ocean acidification, textile waste)
- Waste of resources for livelihood
- Land Pollution (Plastic carry bags, Cobalt mining, Agriculture)



Thank You All

