



## Emissions Gap Report 2023: UNEP

**For Prelims:** Emissions Gap Report 2023, [United Nations Environment Programme \(UNEP\)](#), [Global Warming](#), [Greenhouse Gas Emissions \(GHG\)](#), Nationally Determined Contributions (NDCs), Net-Zero.

**For Mains:** Emissions Gap Report 2023: UNEP, Environmental pollution and degradation.

[Source: IE](#)

### Why in News?

Recently, [United Nations Environment Programme \(UNEP\)](#) has released a report titled- **the Emissions Gap Report 2023: Broken Record - Temperatures hit new highs, yet world fails to cut emissions (again)**, stating that urgent Climate Action is crucial to avoid the alarming trajectory of Temperature Rise.

- The report is the 14<sup>th</sup> edition in a series that brings together many of the world's top climate scientists to look at future trends in greenhouse gas emissions and provide potential solutions to the challenge of [Global Warming](#).

### What Emissions Gap Report (EGR)?

- The EGR is UNEP's spotlight report launched annually in advance of the Annual Climate negotiations.
- The EGR tracks the **gap between where global emissions are heading with current country commitments** and where they ought to be to limit warming to 1.5°C.

### What are the Key Highlights of the Report?

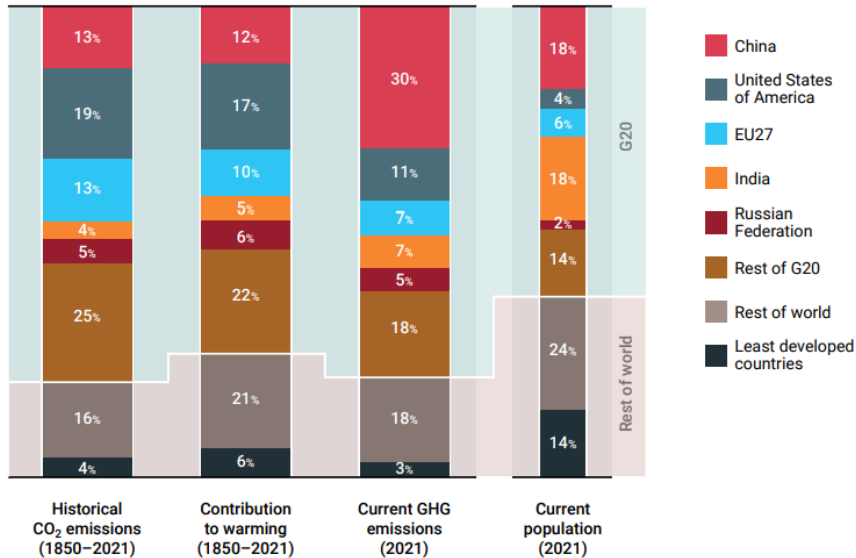
- **Temperature Rise Trajectory:**
  - Current pledges under the [Paris Agreement](#) set the world on a course for a **2.5-2.9°C temperature rise above pre-industrial levels** by the end of this century.
    - Paris Agreement (also known as the Conference of Parties 21 or COP 21) is a landmark environmental accord that was adopted in **2015 to address climate change and its negative impacts**.
  - To limit warming to 1.5-2°C, substantial emission cuts of **28-42% by 2030 are necessary**.
- **Global Emissions Trends:**
  - [Greenhouse Gas Emissions \(GHG\)](#) hit a new record of **57.4 Gigatonnes of Carbon Dioxide Equivalent (GtCO<sub>2</sub>e) in 2022**, with a 1.2% increase from the previous year.
    - Fossil CO<sub>2</sub> emissions account for approximately two thirds of current GHG emissions using 100-year global warming potentials.
    - According to multiple datasets, fossil CO<sub>2</sub> emissions grew between 0.8-1.5% in 2022 and were the main contributor to the overall increase in GHG emissions. In 2022, fluorinated gases emissions grew by 5.5%, followed by Methane at 1.8% and

nitrous oxide (N<sub>2</sub>O) at 0.9%.

- GHG emissions across **the G20 also increased by 1.2% in 2022**. However, members vary widely in their trends with increases in **China, India, Indonesia and the United States of America**, but decreases in Brazil, the European Union and the Russian Federation. Collectively, the **G20 currently accounts for 76% of global emissions**.

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Current and historic contributions to climate change  
(% share by countries or regions)



#### ▪ Emissions from Major Economic Sectors:

- Emissions can be split into five major economic sectors, Energy supply, industry, agriculture and Land use, land-use change and forestry (LULUCF), transport and buildings.
- In 2022, energy supply was the largest source of emissions at 20.9 GtCO<sub>2</sub>e (36% of the total), followed by Industry (25%), followed by agriculture and LULUCF CO<sub>2</sub> (18%), transport (14%) and buildings ( 6.7%).

#### ▪ Mitigation Efforts:

- If current policies and pledges continue, **global warming will likely reach 3°C above pre-industrial levels** by the end of the century.
- Implementing unconditional **Nationally Determined Contributions (NDCs)** could limit the rise to 2.9°C, while conditional NDCs might cap it at 2.5°C.

#### ▪ Net-Zero Pledges:

- Although countries have made **Net-Zero Pledges**, none of the **G20 Countries** are reducing emissions at a pace **consistent with their targets**.
- Even in the most optimistic scenario, the likelihood of limiting warming to 1.5°C is only 14%.

#### ▪ Progress and Challenges:

- Policy progress since the Paris Agreement has reduced the implementation gap but is not sufficient.
- Nine countries updated their NDCs, potentially reducing emissions by **about 9% annually by 2030**.
- However, further reductions are essential to establish least-cost pathways for limiting global warming to 1.5°C.

## What are the Recommendations to Bridge the Emissions Gap?

#### ▪ Low-Carbon Development:

- There is a need for **global, low-carbon development transformations**, especially focusing on the energy transition.
- The extraction and **planned use of fossil fuels far exceed** the carbon budget for

meeting temperature goals.

▪ **Support and Financing:**

- Countries with greater capacity and responsibility for generating emissions will **need to take more ambitious action** and provide financial and technical support to developing nations.
- Low- and middle-income countries, which already account for more than two-thirds of global emissions, **must meet their legitimate development needs and aspirations** with low-emission growth trajectories.

▪ **Carbon Dioxide Removal:**

- Carbon dioxide removal will be needed more in the future. However, there are many risks with new methods of carbon dioxide removal, one of the main ones being that the technology isn't in place yet.
- Essentially, the longer we wait, the harder it's going to be. The world needs to lift the needle out of the groove of insufficient action and begin setting new records on cutting emissions, green and just transitions and climate finance – starting now.

## What are the Initiatives to Reduce Emissions in India?

- [Bharat Stage-IV \(BS-IV\) to Bharat Stage-VI \(BS-VI\) emission norms.](#)
- [UJALA scheme.](#)
- [International Solar Alliance.](#)
- [National Action Plan on Climate Change \(NAPCC\).](#)
- [Ethanol Blending in India by 2025.](#)
- [India Updated its NDC.](#)

## What is the United Nations Environment Programme?

▪ **About:**

- It is a leading global environmental authority established on 5th June 1972.
- It sets the global environmental agenda, promotes sustainable development within the United Nations system, and serves as an authoritative advocate for global environment protection.

▪ **Headquarters:**

- Nairobi, Kenya.

▪ **Major Reports:**

- Emission Gap Report, [Adaptation Gap Report](#), [Global Environment Outlook](#), Frontiers, Invest into Healthy Planet.

▪ **Major Campaigns:**

- Beat Pollution, UN75, [World Environment Day](#), Wild for Life.

## UPSC Civil Services Examination Previous Year Question

### Prelims

Q. The 'Common Carbon Metric', supported by UNEP, has been developed for

- (a) assessing the carbon footprint of building operations around the world
- (b) enabling commercial fanning entities around the world to enter carbon emission trading
- (c) enabling governments to assess the overall carbon footprint caused by their countries
- (d) assessing the overall carbon foot-print caused by the use of fossil fuels by the world in a unit time

Ans: (a)

### Mains

Q. Discuss global warming and mention its effects on the global climate. Explain the control measures to bring down the level of greenhouse gases which cause global warming, in the light of the Kyoto Protocol, 1997. (2022)

PDF Referenece URL: <https://www.drishtias.com/printpdf/emissions-gap-report-2023-uneq>

