



Global Annual to Decadal Climate Update Report

For Prelims: Annual Decadal Climate Outlook Report, Findings of the Report, World Meteorological Department, Paris Agreement.

For Mains: Environmental Pollution & Degradation, Conservation.

Why in News?

According to the global annual to decadal climate update report issued by the [World Meteorological Organisation \(WMO\)](#), India could be among the few regions globally where **below normal temperatures have been predicted for the year 2022** and the next four years.

- The year 2022 will be cooler (compared to the 1991 - 2020 average) over India, along with Alaska and Canada.
- The annual update harnesses the expertise of internationally acclaimed climate scientists and the best prediction systems from leading climate centres around the world to produce actionable information for decision-makers.

What is World Meteorological Organization (WMO)?

- It is an **intergovernmental organization** with a membership of 193 Member States and Territories.
 - **India** is a member of WMO.
- It originated from the **International Meteorological Organization (IMO)**, which was established after the **1873 Vienna International Meteorological Congress**.
- Established by the ratification of the WMO Convention on 23rd March 1950, WMO became the **specialized agency** of the United Nations for meteorology (weather and climate), operational hydrology and related geophysical sciences.'
- WMO is **headquartered in Geneva**, Switzerland.

What are the Major Findings?

- **Temperature above 1.5°C:** There is a **50:50 chance of the annual average global temperature temporarily reaching 1.5°C above the pre-industrial level** for at least one of the next five years.
- **Warmest Year:** There is a 93% likelihood of at least one year between 2022-2026 becoming **the warmest on record** and dislodging 2016 from the top ranking.
 - The chance of the five-year average for 2022-2026 being higher than the last five years (2017-2021) is also 93%.
- **La Nina and El Nino Events:** Back-to-back [La Niña](#) events at the start and end of 2021 had a cooling effect on global temperatures, but this is only **temporary and does not reverse the**

long-term global warming trend.

- Any development of an [El Niño event](#) would immediately fuel temperatures, as it did in 2016, which is until now the warmest year on record.
- **Precipitation Patterns:** Predicted precipitation patterns for the November to March 2022/23-2026/27 average, compared to the 1991-2020 average, suggest increased precipitation in the tropics and reduced precipitation in the subtropics, consistent with the patterns expected from climate warming.

What are the India Specific Findings?

- One of the primary reasons for the lowering of temperatures over India from next year is the **possible increase in rainfall activity** in this decade.
- As per the [India Meteorological Department \(IMD\)](#), the Indian monsoon will soon enter a positive period after remaining in a negative period since 1971.
 - Many parts of India will **receive above-normal rainfall**. This will keep temperatures low.
- The future trend suggests that the decadal mean value will be **close to near normal from 2021 to 2030**.
 - It will then turn positive, the decade 2031-2040 will be the **beginning of a wet period**.

What are the Concerns?

- According to the study, the world is getting measurably closer to temporarily reaching the lower target of the [Paris Agreement on Climate Change](#).
 - The 1.5°C is probably an indicator of the point at which climate impacts will become **increasingly harmful for people and indeed the entire planet**.
- The Paris Agreement sets **long-term goals** to guide all nations to substantially reduce global greenhouse gas emissions **to limit the global temperature increase** in this century to 2 °C while pursuing efforts to limit the increase even further to 1.5 °C.
- For as long as people continue to emit greenhouse gases, **temperatures will continue to rise**. And alongside that, oceans will continue to become warmer and more acidic, sea ice and glaciers will continue to melt, sea level will continue to rise and our weather will become more extreme.
 - [Arctic warming](#) is disproportionately high and what happens in the Arctic will affect everyone.

UPSC Civil Services Previous Year's Questions (PYQs)

Q. With reference to the Agreement at the UNFCCC Meeting in Paris in 2015, which of the following statements is/are correct? (2016)

1. The Agreement was signed by all the member countries of the UN and it will go into effect in 2017.
2. The Agreement aims to limit greenhouse gas emissions so that the rise in average global temperature by the end of this century does not exceed 2°C or even 1.5°C above pre-industrial levels.
3. Developed countries acknowledged their historical responsibility in global warming and committed to donate \$ 1000 billion a year from 2020 to help developing countries to cope with climate change.

Select the correct answer using the code given below:

- (a) 1 and 3 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Ans: B

[Source: IE](#)

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