

# Global warming will hit us faster, UN body sees temperatures rising by 1.5°C in next 20 years

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Global warming will hit us faster, UN body sees temperatures rising by 1.5°C in next 20 years

By

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Synopsis

**Climate change has become widespread, rapid and is intensifying, the Intergovernmental Panel on Climate Change (IPCC) said on Monday. The global body warned that temperatures could rise by 1.**



The report concludes that ice melt and sea level rise are already accelerating. Wild weather events - from storms to heat waves - are also expected to worsen and become more frequent.

Climate change has become widespread, rapid and is intensifying, the Intergovernmental Panel on Climate Change (IPCC) said on Monday.

The global body warned that temperatures could rise by 1.5°C earlier - by 2040 - causing more heat waves, longer warm seasons, and other severe climate events.

World leaders had agreed to limit global warming to well below 2°C and pursue efforts to limit warming to 1.5°C compared to pre-industrial levels, as part of the Paris agreement on climate change.

The IPCC report says this threshold is likely to be crossed by 2040 - under all five scenarios including the one on low greenhouse gas emissions – and the increase could reach 2°C by the end of the century.

For India and the subcontinent, such a level of global warming would mean more intense heatwaves and higher monsoon rainfall, but greater chances of drought and more cyclonic activity.

Greenhouse gas emissions from human activities were already responsible for around 1.07°C of warming between 1850-1900 and 2010-19.

The United Nations (UN) body for assessing climate change said global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO2 and other greenhouse gases occur in the coming decades.

“At 2°C of global warming, heat extremes would more often reach critical tolerance thresholds for agriculture and health,” the first part of its sixth assessment report, titled “Climate Change 2021: The Physical Science Basis”, warned.

UN Secretary General Antonio Guterres described the report as “Code Red for humanity.”

The first edition of the report focuses on the question of the extent of warming, the role of human activities in the warming, projections of extreme weather and temperature rise.

“Many changes in the climate system become larger in direct relation to increasing global warming,” the report said. “They include increases in the frequency and intensity of hot extremes, marine heatwaves, and heavy precipitation, agricultural and ecological droughts in some regions, and proportion of intense tropical cyclones, as well as reductions in Arctic Sea ice, snow cover and permafrost.”

Some of these changes already set in motion — such as continued sea level rise — are irreversible over hundreds to thousands of years, the report said.

Speaking at the release of the report, IPCC chair Hoesung Lee said that human influence in warming the atmosphere, ocean and land was “unequivocal”.

He also said the impact of climate change has been felt by all regions.

“This report is a reality check,” said IPCC Working Group I Co-Chair Valérie Masson-Delmotte. “We now have a much clearer picture of the past, present and future climate, which is essential for understanding where we are headed, what can be done, and how we can prepare.”

## **Reduce CO2**

Strong and sustained reductions in emissions of carbon dioxide (CO2) and other greenhouse gases would limit climate change, the report said.

By limiting the warming to 1.5 degree Celsius, it is possible to slow down the impact of climate change and to prevent it from getting worse, said Professor G Bala of IISc-Bangalore and a lead author of the report.

“The impacts of climate change that we are experiencing is due to GHG emissions till now. To ensure that there is no further warming, it is essential to ensure there is no further emission into the atmosphere,” he explained.

This will require a transition to a low- or no-carbon development pathway.

“If we reduce emissions globally to net zero by 2040 there is still a two-thirds chance to reach 1.5C. If we globally achieve net zero emissions by the middle of the century, there is still a one-third chance to achieve that,” said Friederike Otto, IPCC author and Associate Director, Environmental Change Institute, University of Oxford.

Coastal areas will see continued sea level rise throughout the 21st century, contributing to more frequent and severe coastal flooding in low-lying areas and coastal erosion. Extreme sea level events that previously occurred once in 100 years could happen every year by the end of this century.

Scientists have warned that many of the changes are now irreversible, but drastic reduction in emissions will stabilize the temperature.

“The report is very clear; the science is very clear. What drives warming is future emissions,” said Masson-Delmotte,

The report is a key input for the UN Climate Change Conference at Glasgow that is expected to take place from October 31 to November 12.

The UK, which is chairing the summit, has prioritized that the goal of limiting temperature increases to 1.5C is achievable.

“Today’s report makes for sobering reading, and it is clear that the next decade is going to be pivotal to securing the future of our planet. We know what must be done to limit global warming – consign coal to history and shift to clean energy sources, protect nature and provide climate finance for countries on the frontline,” UK Prime Minister Boris Johnson said.

Countries such as India that have yet to revise their climate commitments will be expected to step up efforts to reduce emissions.

“G20 countries bear a special responsibility, urge them to live up to the facts on the table and submit ambitious NDCs,” said UNEP executive director Inger Andersen.