


Climate report unlikely to lead to extra efforts

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The Intergovernmental Panel on Climate Change (IPCC) report on Monday, which said that extreme weather events have increased due to the rise in carbon emissions and the planet will reach 1.5 degrees Celsius warming threshold much earlier than anticipated, may not result in higher ambition at the Glasgow climate conference in November, said experts on climate change negotiations.



India and China, the world's two biggest emitters have opposed net zero, saying it would go against the United Nations Climate Framework that provides for differentiated responsibility among developed and developing world and equity to carbon space.(AP | Representational image)

IPCC's Physical Science Basis report, the first of its three sixth assessment report, tells the world that oceans could rise by 1-2 feet even in one of the better scenarios (it considered five) by turn of this century, and heat waves occur 14 times as often if warming touches 2 degrees C.

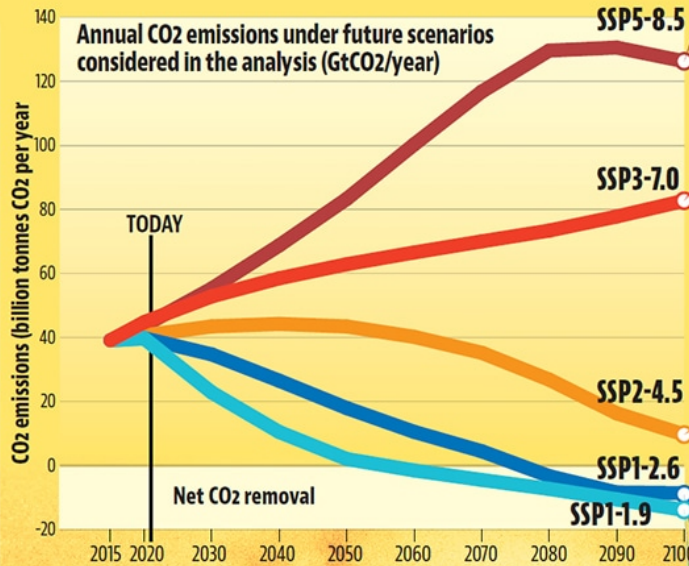
"The report tells us, we have a small window to act," said Govindasamy Bala, professor at the Center for Atmospheric and Oceanic Sciences in Indian Institute of Sciences, Bangalore, and one of the lead authors of the report.

The five futures

The IPCC report uses five possible scenarios for the future, which predict how the climate crisis will unfold depending on the socioeconomic choices of nations

What are these scenarios?

They are the result of calculations based on how quickly humans curb greenhouse gas emissions and are meant to capture socioeconomic changes in areas such as population, urban density, education, land use and wealth. For example, a rise in population is assumed to lead to higher demand for fossil fuels and water. Each scenario is labelled to identify the emission level and the Shared Socioeconomic Pathway, or SSP, in those calculations.



Very high emissions: This is a future to avoid at all costs. Current CO₂ emissions levels roughly double by 2050. The global economy grows quickly, but growth is fuelled by exploiting fossil fuels and energy-intensive lifestyles. By 2100, the average temp is a scorching 4.4C higher.

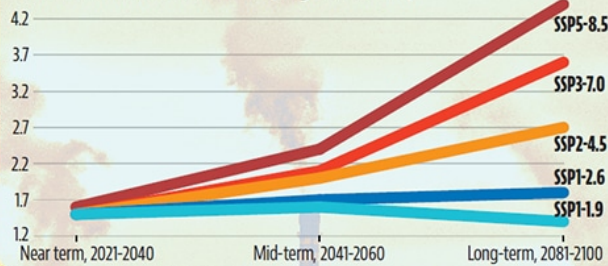
High: On this path, emissions and temperatures rise steadily and CO₂ emissions roughly double from current levels by 2100. Countries become more competitive with one another, shifting toward national security and ensuring their own food supplies. By the end of the century, average temperatures have risen by 3.6C.

Intermediate: This is a "middle of the road" scenario. Emissions hover around current levels before starting to fall mid-century, but do not reach net-zero by 2100. Socioeconomic factors follow historic trends, with no notable shifts. Move to sustainability is slow, and income grows unevenly. Temperatures rise 2.7C by 2100.

Low: In the second-best scenario, global CO₂ emissions are cut severely, but not as fast, reaching net-zero after 2050. It imagines the same socioeconomic shifts towards sustainability as SSP1-1.9. But temperatures stabilize around 1.8C higher by the end of the century.

Very Low: This is the most optimistic scenario, describing a world where global CO₂ emissions are cut to net zero around 2050. Societies switch to more sustainable practices, with focus shifting from economic growth to overall well-being. Investments in education and health go up. Inequality falls. Extreme weather is more common, but the world has dodged the worst impacts of climate change.

Best estimate of change in global surface temperature for the five emission scenarios (degree Celsius)



The report clearly mentioned that limiting temperature rise to 1.5 degree Celsius by turn of the century is becoming beyond reach. "Earlier, we had given 20 years for 1.5 degree temperature rise, now it is 10 years," he said, adding that carbon emissions have already increased the temperature by 1.1 degree Celsius in the last 100 years. So, the world has window for only 0.4 degree C.

To ensure that window remains open, Bala said the five scenarios presented by the report clearly show that there is no longer an option of a peaking year (when a country's carbon emissions would peak) available with the planet to save it from dramatic danger of climate

change.

“We have to go for emission reduction and that is net zero,” he said.

In the net zero concept, the world, as a whole, theoretically, will stop emitting carbon dioxide by 2050. A country will be able to emit carbon equal to the carbon sinks it has and the amount of carbon credits it can buy.

Several European countries such as France, United Kingdom and Sweden have brought law to achieve net zero by 2050 and many others are on way to have similar laws.

However, India and China, the world’s two biggest emitters have opposed net zero, saying it would go against the United Nations Climate Framework that provides for differentiated responsibility among developed and developing world and equity to carbon space. Net zero, they said, would impose binding restrictions on the developing world, which is historically not responsible for the problem of climate change.

Sunita Narain, director general of Centre for Science and Environment (CSE) said net zero was zero gain for developing countries as it would benefit the rich world, which has already exhausted its carbon space, and the developing world would continue to suffer in the absence of free technology transfer. “This report from global scientists must be a wake-up call. We can no longer lose time in prevarication or in finding new excuses not to act—including empty promises of net zero by 2050,” she said.

Bala, however, said climate science supports net zero as the world cannot look at 2 or higher degree C climate scenarios anymore. “We have to aim for 1.5 degree temperature rise. Time to first allow emissions to rise and then reduce is not there.”

A senior environment ministry official, who has been part of the climate negotiating team for long, said the IPCC report will not alter India’s climate negotiating strategy. “It is clear to us and several other developing countries that the Glasgow conference is to make Paris agreement operational. That will happen,” the official said. He added that the review of the target under the Paris climate deal would happen in 2023-24 and anything before that would depend on enhanced climate finance by the developed world.

Climate talks have got more impetus in 2021 with appointment of John Kerry as US President Joe Biden’s special climate envoy. Kerry, since taking over in March, has visited several important countries for climate talks including biggest carbon emitters after United States, China and India. The US is keen to have higher ambition for Paris agreement, which becomes operational from January 2022.

Kerry was in New Delhi in April 2021 for three days, but environment ministry officials said former environment minister Prakash Javadekar was very clear that the net zero concept was alien to the Paris agreement.

Dr. Arunabha Ghosh, CEO of Council on Energy, Environment and Water, said, “Given that India is one of the most climate-vulnerable countries, we must recognise that even geographically faraway climatic changes can have consequences for our monsoons and intensity of extreme events. India should nudge the international community to capitalise a Global Resilience Reserve Fund to help lower the peaks of climate risks for the most vulnerable countries and create an insurance cushion against severe climate shocks.”

ABOUT THE AUTHOR

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