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The freak weather

Sudden weather change in India and China might be a consequence of global warming

Soni Sinha / New Delhi

INDIA AND China have been in the news for the past few months for political issues. Recently, the two countries are braving the impact of a common factor - the weather. In common parlance it is termed as 'freak weather', a visible effect of the climate change.

The heaviest snowfall in decades is causing chaos in China in the midst of their Lunar New Year celebrations. It is reported that the snowstorms, which started during the second week of January, are currently affecting 80 million people across 14 provinces in the country.

Its adjoining neighbourhood, Kashmir, is facing record snowfall with Himachal Pradesh towing second in line. Reports speak of chilly temperatures in Mumbai too. All this is happening in the month of February which, climate experts say, is paradoxically one of the likely features of global warming.

It is a matter of grave concern as these snowfalls are not going to check the melting of the glaciers in the Himalayas or render any benefit. "These are freak events that would *not* buck¹ the longer-term trend of warming," said BN Goswami, director of the Indian Institute of Tropical Meteorology. These could, in fact, be a consequence of global warming, he said.

"Most of the time the pattern of global warming is grossly misunderstood. We should not be confused that due to global warming there would not be snow at all," said glaciologist Syed Hasnain. Warming caused by the climate change is likely to result in heavy snowfall as reported from certain quarters of

south-east Asia. "Climate change also means increase in intensity and frequency of severe weather conditions. Unfortunately there are no benefits to be had from this," Hasnain said.

Speaking about the recent heavy snowfall, Hasnain said that it would not have any impact on the melting of glaciers in the Himalayas. "It has come very late. Soon the weather is going to become warm and the snow would simply melt away. Snow falls in soft flakes, with bubbles of air trapped inside it. It requires months of cold for it to crystallise into ice, as it is a very slow process," he said.

The heavy snowfall during the month of February that has caused avalanches, disrupted life and killed many has merely resulted in a large amount of short-lived snow that would start melting within a month. It would result in more volume of waterflow in the rivers during the summer and would be gone by the end of it. "One can expect a lot of water in the rivers originating from the western Himalayas," said Hasnain.

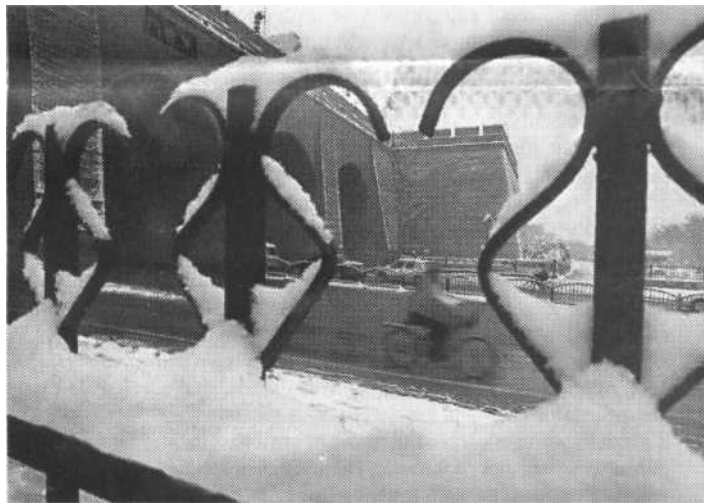
Melting takes place at the lower end of the glaciers and any snow in that part would be quickly gone. It is the accumulation area of a glacier, above the snow line in the mountains, where snowfall can add to the ice, and that snow line is moving up. Hence, there is less accumulation, resulting in reduction of the glacier mass.

Glaciers in the Himalayas are receding faster than in any other part of the world and, if the present rate continues, the likelihood of them disappearing by the year 2035 is very high. "If the Earth keeps getting warmer at the current rate, it might happen much sooner," said Hasnain.

Himalayan glaciers cover about three million hectares or 17 per cent of the mountain area as compared to 2.2 per cent in the Swiss Alps. They form the largest body of ice outside the Polar caps and feed the perennial rivers such as the Indus, Ganga and Brahmaputra. They, in turn, are the lifeline of millions of people.

Although specifically, the unusual February temperatures resulting from westerly disturbances cannot be said to be caused by climate change, one could always find an earlier instance when such a thing happened. However, such extreme weather events are becoming more frequent not only in Mumbai but all over the country, Goswami said. Taking an average, such things are happening more often every year.

Freak and isolated events of severe cold at odd times of the year do not have any significance for the overall trend of melting of these glaciers. "It is only when there is linearity in the events that a trend emerges," said Hasnain. The trend that is evident is only that of an increase in freak weather events everywhere.



Heavy snowfall in North China



Stranded trucks on Jammu Kashmir highway