

# IS LA NINA A FAIR WEATHER FRIEND OF OUR COUNTRY?

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In most years, meteorologists consider the La Nina to be a friend of India. The phenomenon associated with below normal sea surface temperatures in the eastern and central Pacific Ocean, makes the summer monsoon wetter and the winter colder unlike its evil twin, the El Nino, or a warming phenomenon that frequently dries up monsoon rains over India.

This year, however, the La Nina is being blamed for worsening perhaps the longest spell of heatwaves from March to April in north, west and Central India.

Formally known as the El Nino Southern Oscillation (ENSO), the La Nina-El Nino phenomenon follows a periodic pattern that roughly lasts three years.

During a La Nina winter, a north-south pressure pattern sets up over India and normally this influences the trade winds that bring rains to India. However, because the La Nina didn't peak, the sea surface temperatures continued to be cold and this drove hot westerly winds and blasts of hot air from the Middle East into Pakistan and India.

"The north-south pressure pattern has been persisting over India, with La Nina extending its stay over the Pacific. This has definitely impacted the weather over India, which has been seen even during 1998-2000 when La Nina had persisted for three years," Raghu Murtugudde, Professor, Department of Atmospheric and Oceanic Science, University of Maryland told Climate Trends, a communications firm that specialises in climate and environment.

While land temperatures over India begin rising in March, they are usually punctuated by western disturbances, or moisture from the Mediterranean region that fall as rain over north and western India. For these currents to make it as far as India, they need a significant difference in temperature between Europe and the latitudes over India. "Partly due to La Nina, this temperature difference was absent and so the western disturbances that came to India were weak with hardly any rain," M. Ravichandran, Secretary, Ministry of Earth Sciences and climate scientist, told *The Hindu*.

According to a 2021 report by the Ministry of Earth Sciences, 'Assessment of Climate Change over the Indian Region', all India averaged frequency of summer heatwaves is expected to rise to about 2.5 events per season by the mid-21st century, with a further slight rise to about 3.0 events by the end of 21st century under current trajectory of greenhouse gas emission.

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