

What if El Nino materialises in 2023?

El Nino usually leads to a drought, hitting the production of rice, groundnut and pulses

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What is El Nino?

El Nino is one piece in the mammoth jigsaw puzzle that the Pacific Ocean and its seasonal climatic patterns typify.

Being the largest single body of water, the Pacific has an outsized influence on weather and climate across the globe. In normal conditions, trade winds here blow West along the Equator, pushing warm water from South America towards Asia. To replace that warm water, cold water rises from the depths. El Niño and La Niña are opposing climate patterns that break these normal conditions and collectively represent the El Niño-Southern Oscillation (ENSO) cycle.

How does an El Nino impact rainfall?

During El Niño, trade winds weaken and warm water gets pushed back East of the Pacific, towards the West coast of the Americas. Warm oceans promote

evaporation and therefore lower pressure, causing air and moisture to ascend. The moisture condenses in the heights to form clouds, storms, heavy rain and floods. The exact reverse happens at the other end (Asia) where waters become cooler. Air descends here and builds pressure, setting up clear skies and below-normal rainfall.

On average, these episodes occur every two to seven years but don't keep to a regular schedule.

What is the probability of 2023 being an El Nino year?

Generally, El Niño occurs more frequently than La Niña. Most global models predict enhanced possibilities of the current La Nina ending sooner than later, and the Pacific shifting into an El Nino mode from this summer (2023) coinciding with the South-West monsoon in India.

A final word on when and in what degree/grade the El Nino can materialise has to wait until April thanks to the "spring barrier" that erodes prediction accuracy at this point in time. India Meteorological Department (IMD), too,



EL NINO. Drought fearSNAGARA GOPAL

has said a clearer image would emerge only in April which will reflect in its first long-range forecast for the June-September South-West monsoon.

How will El Nino impact agriculture output in India? Which crops will be most affected?

El Nino will typically lead to drought. In the past, El Nino has resulted in drought or deficient southwest monsoon in the country. A deficient monsoon could affect the production of kharif crops.

Paddy, a water guzzler, groundnut and pulses are the crops that are most likely to be affected in the case of a severe El Nino. Sugarcane and cotton output can also be hit.

Is India prepared to face El Nino? What can government do to shield the economy?

The Crop Weather Watch Group now monitors everything from the rainfall to crop sowing to water storage levels in major reservoirs.

To shield the economy, the government can ensure the availability of ample foodstocks in its granaries. It has already procured 47 million tonnes (mt) of the targeted 52.1 mt of rice this crop year to June. It will likely procure wheat from April 1 once wheat begins arriving in the markets after harvest.

The other measures the Centre could resort to are export curbs to ensure adequate domestic supplies. However, El Nino usually affects oil palm production. But estimates of a record high mustard production and a good stock of soyabean with farmers may help tide over any such situation.