

Prepare for El Niño: Earth's Climate in Fast-Forward

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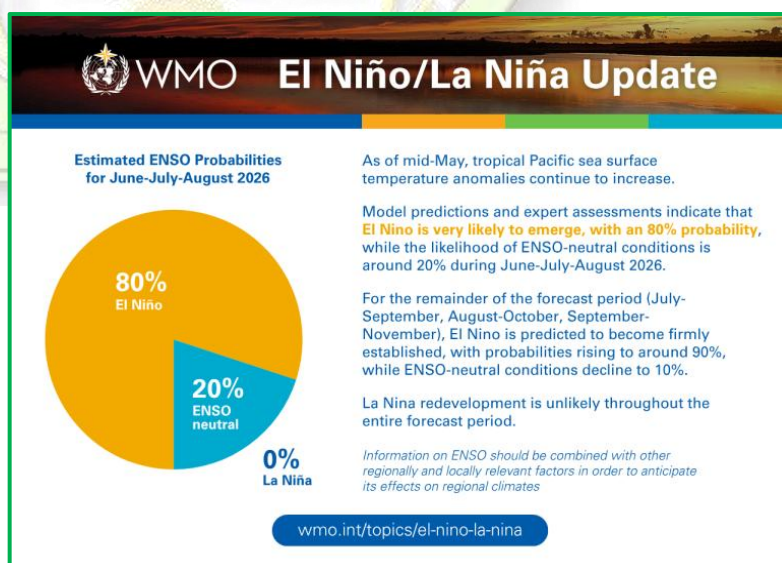
El Niño is one of the most powerful drivers of global weather, climate conditions and hunger. El Niño conditions have started and are expected to strengthen through 2026, potentially becoming one of the strongest on record and raising concerns for food security in vulnerable regions. However, because the impacts of El Niño can be forecast months in advance, there is a clear window to prepare for and act to protect food insecure people, before the effects escalate.

What is El Niño and how can it become a food security crisis?

El Niño is the warm phase of the El Niño–Southern Oscillation (ENSO), a natural climate pattern that shifts global weather patterns and increases the risks of floods, droughts, storms, fires, and heat waves occur worldwide. El Niño can bring drought to some regions and severe flooding to others – and in some cases both. These extremes damage crops, livestock and infrastructure, reducing food production and disrupting markets. As supply falls, prices rise and food becomes less affordable – especially for smallholder farmers and pastoralists who rely on rainfall. When combined with existing pressures such as conflict these climate shocks can quickly increase hunger. El Niño can also affect major global food-producing regions, with impacts on supply and prices that extend beyond affected areas – multiplying food security risks.

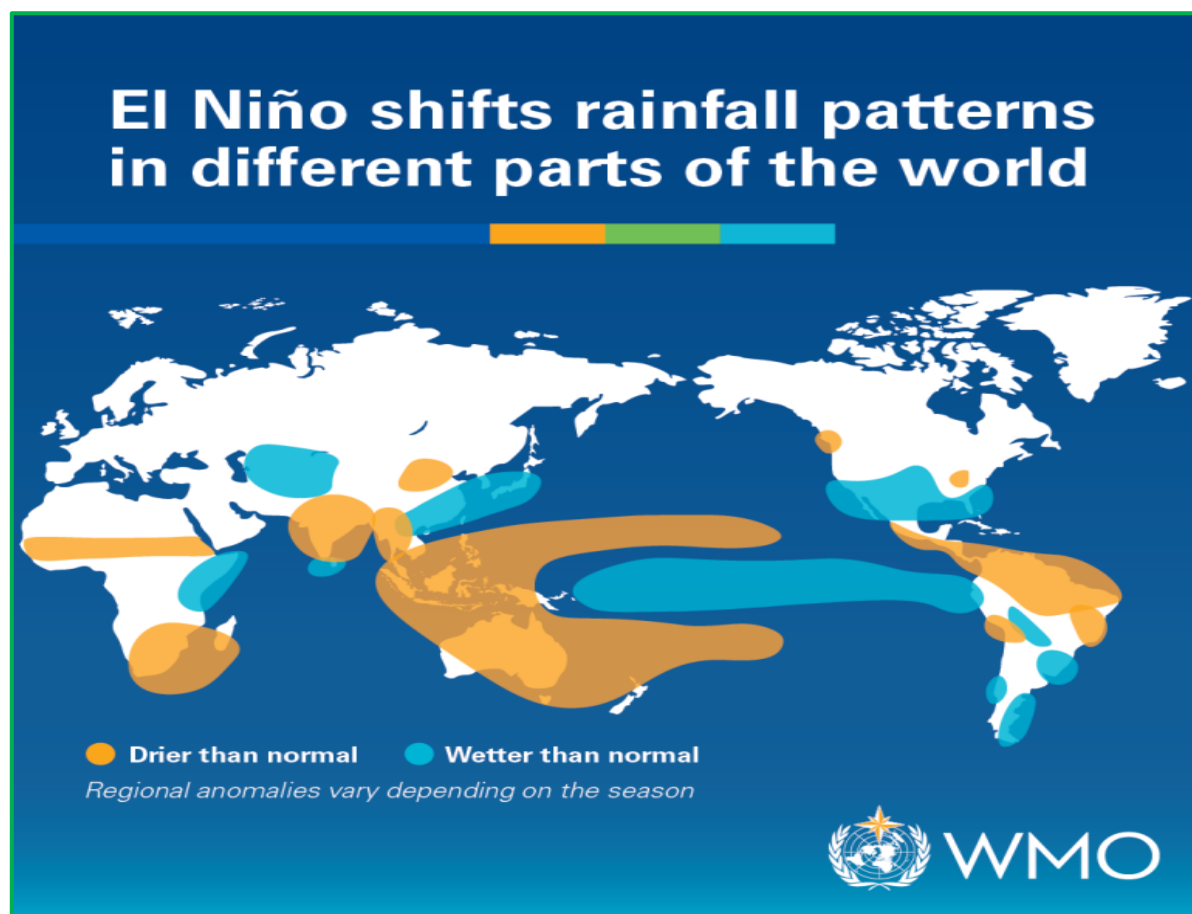
What is the difference between El Niño and La Niña?

El Niño and La Niña are opposite phases of the same ENSO cycle. El Niño is the warm phase, when ocean temperatures rise and disrupt rainfall patterns, often bringing drought in some regions and heavier rains in others. La Niña is the cool phase, when ocean temperatures fall and shift weather patterns in different – but still often extreme – ways, often bringing flooding in some regions and drought elsewhere. They do not happen at different times of the year. Instead, they alternate within the same cycle and typically develop during the year, peak towards the end of the year, and influence weather patterns for several months. Both phases can affect agriculture, water availability and food security – and both have been linked to past food crises.



Global Seasonal Climate Update

WMO also issued a complementary Global Seasonal Climate Update which takes into account ENSO and other key climate drivers, such as the North Atlantic Oscillation, the Southern Annular Mode and the Indian Ocean Dipole – which correlates closely with El Niño in the Pacific and which may develop into a positive phase, peaking concurrently with the intensifying El Niño. For the June-July-August season, forecasts project a nearly universal dominance of above-normal temperatures in nearly all parts of the globe. These increase risks of heat stress and compounding hazards in some regions and accelerate the development of drought conditions where rainfall is reduced. Rainfall probabilities are typical of El Niño patterns and this is likely to contribute to a greater probability of extremes (e.g. increased rainfall and flooding, as well as drier conditions and droughts).



Source: Lenssen, N. J. L., L. Goddard, and S. Mason, 2020: Seasonal Forecast Skill of ENSO Teleconnection Maps. *Wea. Forecasting*, 35, 2387–2406

Where is El Niño likely to hit food security the hardest?

El Niño affects regions differently, but hunger rises most sharply where climate shocks overlap with existing vulnerability:

- In Southern Africa and the Sahel, drought can reduce harvests and pasture, increasing food shortages.
- In the Horn of Africa, heavy rains can lead to flooding – damaging crops and disrupting markets.
- In Central America and the Caribbean, prolonged dry conditions can reduce yields for small-scale farmers.
- In parts of Asia and the Pacific, a mix of droughts and floods can affect key staple crops.
- In these regions, many communities rely on rain-fed agriculture and have limited capacity to absorb shocks – meaning even small disruptions can quickly affect food availability and access.