

El Niño/La Niña Update

November 2025

Embargoed, Thursday 4 December 2024, 0800 GMT, 0900 CET

Current Situation and Outlook

As of mid-November 2025, oceanic and atmospheric indicators reveal borderline La Niña conditions across the equatorial Pacific. According to the latest forecasts from the WMO Global Producing Centres for Seasonal Prediction, there is a 55% probability that the existing cooler than normal sea surface temperatures in the central-eastern equatorial Pacific will be consistent with La Niña thresholds, and a 45% likelihood of a transition back to ENSO-neutral conditions during the December-February 2025-2026 period. For January-March and February-April 2026, the likelihood of returning to ENSO-neutral conditions gradually rises from about 65% to 75%, while La Niña probabilities correspondingly diminish from near 35% to 25%. Prospects for El Niño development remain negligible throughout the outlook period up to April 2026. National Meteorological and Hydrological Services (NMHSs) will closely monitor changes in the state of ENSO over the coming months and provide updated outlooks as needed.

By mid-November 2025, central-eastern equatorial Pacific sea surface temperatures had cooled to near La Niña thresholds (anomalies below -0.5 °C). Subsurface ocean temperatures have remained below-average since mid-July, their negative anomalies peaking in the past two months but remaining weak. The Southern Oscillation Index (SOI) has gradually strengthened since September 2025, exceeding the typical La Niña threshold of +7 and reaching +10.9 in October, with the latest 30-day values (from 30 October to 28 November) even further increasing (+13.7) and remaining firmly above the La Niña threshold. Trade winds have strengthened slightly in recent weeks. Moreover, recent outgoing longwave radiation (OLR) data also indicate reduced cloudiness across the International Date Line, consistent with cooler SSTs. Collectively, key oceanic and atmospheric indicators show that the equatorial Pacific is experiencing borderline La Niña conditions.

WMO Global Producing Centres for Seasonal Prediction routinely issue global-scale climate forecasts for the coming months, using dynamical models initialized with recent observations. The latest forecasts and expert assessments indicate approximately a 55% chance that La Niña conditions will persist in the central to eastern equatorial Pacific during December 2025 – February 2026, with ENSO-neutral conditions the next most likely outcome at 45%. For the January–March and February–April 2026 periods, the probability of ENSO-neutral increases to 65% and 75%, respectively, while La Niña chances decline to 35% and 25%. The likelihood of El Niño development up to the first quarter of 2026 is negligible. The continuation of the current La Niña conditions is therefore likely, albeit weak and short-lived, with a swift rebound to ENSO-neutral conditions expected. Looking beyond December 2025 – February 2026, forecast confidence drops sharply as the boreal spring predictability barrier comes into play.

It is important to note that El Niño and La Niña are not the only factors that drive global and regional climate patterns, and further that the magnitudes of ENSO indicators do not directly correspond to the magnitudes of their impacts. At the regional level, seasonal outlooks need to assess the relative effects of both the ENSO state and other locally-relevant climate drivers. Regionally and locally applicable

information is made available via regional and national seasonal climate outlooks, such as those produced by WMO Regional Climate Centres (RCCs), Regional Climate Outlook Forums (RCOFs) and National Meteorological and Hydrological Services (NMHSs).

In summary:

- As of mid-November 2025, borderline La Niña conditions are present across the tropical Pacific.
- Model predictions and expert assessments indicate a 55% chance that the currently cooler than normal equatorial Pacific will remain at La Niña levels during December 2025 February 2026, with a 45% chance of returning to ENSO-neutral.
- The probability of ENSO-neutral rises to 65% in January–March and 75% in February–April 2026, as La Niña chances fall to 35% and 25%.
- The likelihood of El Niño conditions emerging during the forecast period is negligible.

The state of ENSO will continue to be carefully monitored by WMO Members and partners. More detailed analysis on the impacts of ENSO conditions on seasonal climate variability at regional scale will be carried out routinely by the climate forecasting community over the coming months and will be made available through the National Meteorological and Hydrological Services.

For web links of the National Meteorological Hydrological Services, please visit: https://public.wmo.int/en/about-us/members

For information and web links to WMO Regional Climate Centres (RCCs) please visit: <u>https://wmo.int/activities/csis/rcc</u>

For information and web links to Regional Climate Outlook Forums (RCOFs) please visit: https://wmo.int/activities/csis/regional-climate-outlook-forums-and-regional-climate-forums

For the latest Global Seasonal Climate Update (GSCU) based on WMO Global Producing Centres of Seasonal Prediction, please visit:

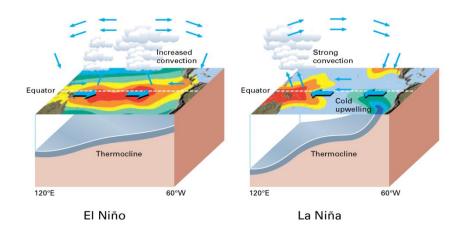
https://www.wmolc.org/gscuBoard/list

An archive of all WMO El Niño/La Niña Updates issued so far, including this one, is available on the WMO website.

Acknowledgements

The WMO El Niño/La Niña Update is prepared through a collaborative effort between the WMO and the International Research Institute for Climate and Society (IRI), USA, and is based on contributions from experts worldwide, inter alia, of the following institutions: Australian Bureau of Meteorology (BoM), Centro Internacional para la Investigación del Fenómeno El Niño (CIIFEN), China Meteorological Administration (CMA), Climate Prediction Centre (CPC) and Pacific ENSO Applications Climate (PEAC) Services of the National Oceanic and Atmospheric Administration (NOAA) of the United States of America (USA), European Centre for Medium Range Weather Forecasts (ECMWF), Météo-France, India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (IITM), International Monsoons Project Office (IMPO), Japan Meteorological Agency (JMA), Korea Meteorological Administration (KMA), Met Office of the United Kingdom, Meteorological Service Singapore (MSS), WMO Global Producing Centres of Seasonal Prediction (GPCs-SP) including the Lead Centre for Seasonal Prediction Multi-Model Ensemble (LC-SPMME).

El Niño/La Niña Background



Typical circulation patterns during El Niño/La Niña (Source: WMO, 2003, "Climate into the 21st Century").

Climate Patterns in the Pacific

Research conducted over recent decades has shed considerable light on the important role played by interactions between the atmosphere and ocean in the tropical belt of the Pacific Ocean in altering global weather and climate patterns. During El Niño events, sea surface temperatures in the central and eastern tropical Pacific Ocean become substantially warmer than normal. In contrast, during La Niña events, the sea surface temperatures in these regions become colder than normal. These temperature changes are strongly linked to major climate fluctuations around the globe and, once initiated, such events can last for 12 months or more. The strong El Niño event of 1997–1998 was followed by a prolonged La Niña phase that extended from mid-1998 to early 2001. El Niño/La Niña events change the likelihood of particular climate patterns around the globe, but the outcomes of each event are never exactly the same. Furthermore, while there is generally a relationship between the global impacts of an El Niño/La Niña event and its intensity, there is always potential for an event to generate serious impacts in some regions irrespective of its intensity.

Forecasting and Monitoring the El Niño/La Niña Phenomenon

The forecasting of Pacific Ocean developments is undertaken in a number of ways. Complex dynamical models project the evolution of the tropical Pacific Ocean from its currently observed state. Statistical forecast models can also capture some of the precursors of such developments. Expert analysis of the current situation adds further value, especially in interpreting the implications of the evolving situation below the ocean surface. All forecast methods try to incorporate the effects of ocean-atmosphere interactions within the climate system. The meteorological and oceanographic data that allow El Niño and La Niña episodes to be monitored and forecast are drawn from national and international observing systems. The exchange and processing of the data are carried out under programmes coordinated by the WMO.

WMO El Niño/La Niña Update

The WMO El Niño/La Niña Update is prepared on a quasi-regular basis (approximately every three months) through a collaborative effort between WMO and the International Research Institute for Climate and Society (IRI) as a contribution to the United Nations Inter-Agency Task Force on Natural Disaster Reduction. It is based on contributions from the leading centres around the world monitoring and predicting this phenomenon and expert consensus facilitated by WMO and IRI.

For more information on the Update and related aspects, please visit: https://wmo.int/el-ninola-nina-updates