

El Niño/La Niña Watch

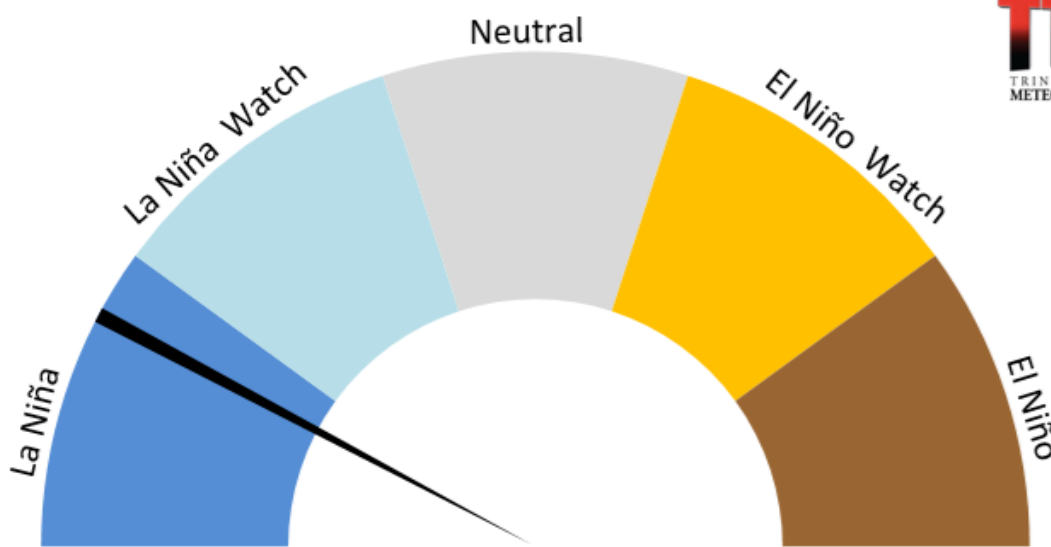


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ENSO Monitor Update (based on the NIÑO 3.4 index (120-170W, 5S-5N) Issued: 9th January 2025

La Niña conditions are present and are expected to persist throughout January to March and return to ENSO-neutral conditions in March to May 2025.

ENSO OUTLOOK



La Niña conditions emerged in early December and were reflected in below average sea surface temperatures across the central and east central equatorial Pacific Ocean. The latest weekly indices ranged between $-0.7\text{ }^{\circ}\text{C}$ and near $0.0\text{ }^{\circ}\text{C}$. The upper ocean heat content anomalies continued to decrease and below-average subsurface temperatures continue to develop geographically reflecting an expansion of negative subsurface anomalies across the equatorial Pacific Ocean. The atmosphere has also reflected this change where low-level wind anomalies are easterly over the eastern-central and eastern Pacific Ocean and the upper-level winds are westerlies. Convective rainfall was suppressed over the International Date Line and enhanced in the western equatorial Pacific Ocean and across Indonesia. Collectively, the coupled ocean-atmosphere system reflects weak La Niña conditions. Climate models have indicated with a moderate probability (59%) that La Niña conditions will persist during January to March 2025 and will transition to ENSO-neutral in March to May 2025 with a moderate probability of 60%. Although the La Niña is weak and its occurrence is late in the season, its influence on the weather will be felt across Trinidad and Tobago.

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What does this mean for Trinidad and Tobago?

La Niña event increases the likelihood of near-normal to above-normal rainfall to occur. Historically during a La Niña event, near-normal to above-normal rainfall amounts would occur within Trinidad and Tobago, but not always. La Niña conditions will likely have a positive influence on local cloudiness and rainfall and therefore, will enhance the strength of local and regional rainfall-generating systems to produce average to above-average rainfall totals during January to March 2025.

Guide: A La Niña (El Niño) is declared when the average SSTs in the central and eastern equatorial Pacific Ocean become at least -0.5°C cooler than average (0.5°C warmer than average) in the preceding month and the cooling (warming) is expected to persist for five consecutive overlapping three-month periods. This must occur together with a corresponding change in the overlying atmospheric circulation. The TTMS La Niña/El Niño Watch is activated when the ENSO Outlook indicates a probability of approximately 50% chance or greater for the development of La Niña or El Niño.