



No SF-2025-02-ENSO-IOD

Current condition and forecasts of ENSO and IOD for FMA 2025

Issued on 06th February 2025 by Seasonal Forecasting Division of the Department of Meteorology, Sri Lanka.

1. El Nino and La Nina update

La Niña conditions are present. Equatorial sea surface temperatures (SSTs) are below average in the central and east-central Pacific Ocean. La Niña conditions are expected to persist through February-April 2025 (59% chance), with a transition to ENSO-neutral likely during March-May 2025 (60% chance).

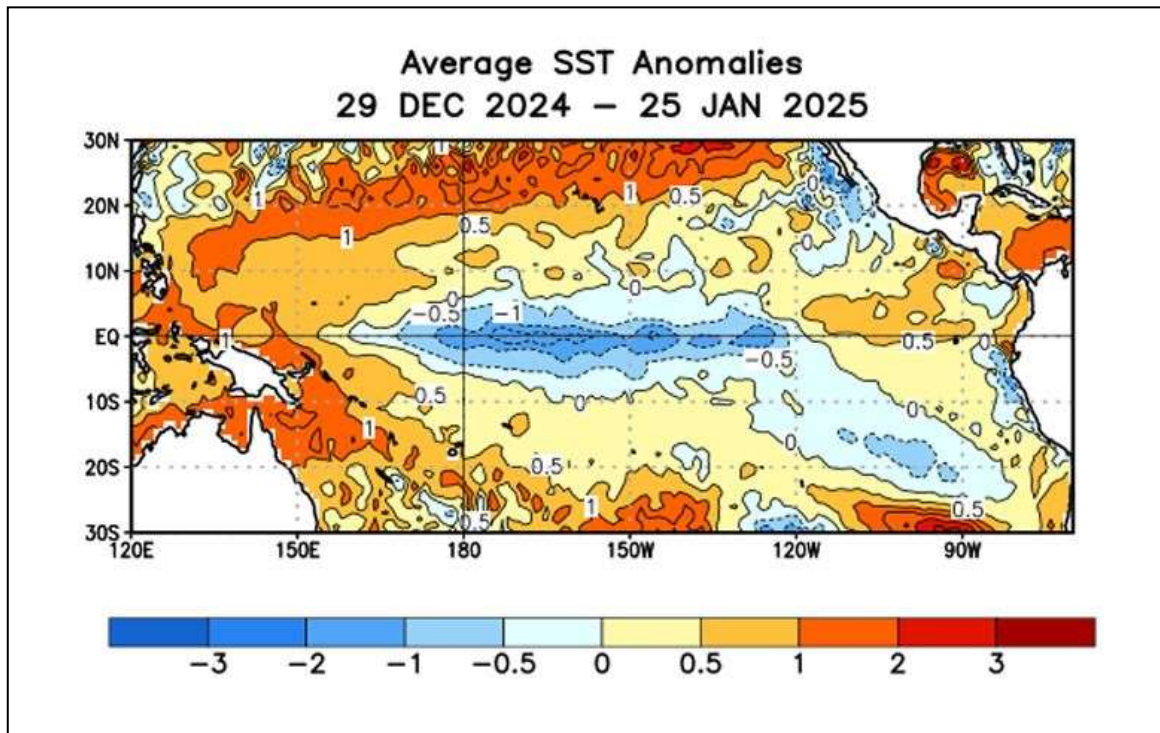


Fig 1: Observed Average Sea surface temperature (SST) anomalies (°C)

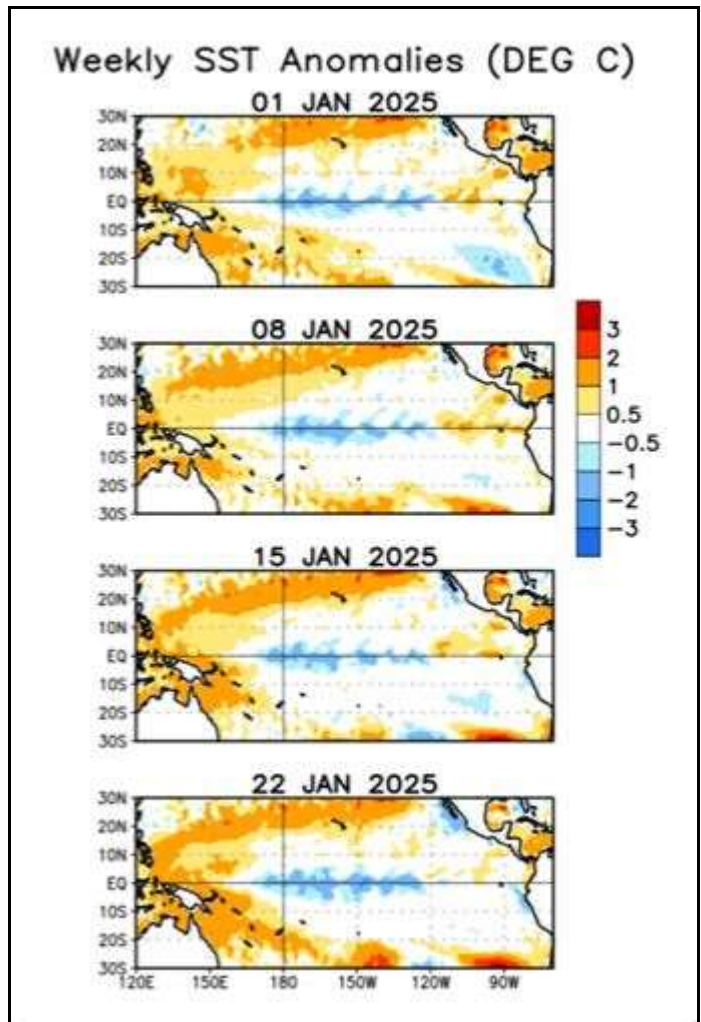


Fig 2: Weekly Observed Average Sea surface temperature (SST) anomalies (°C)

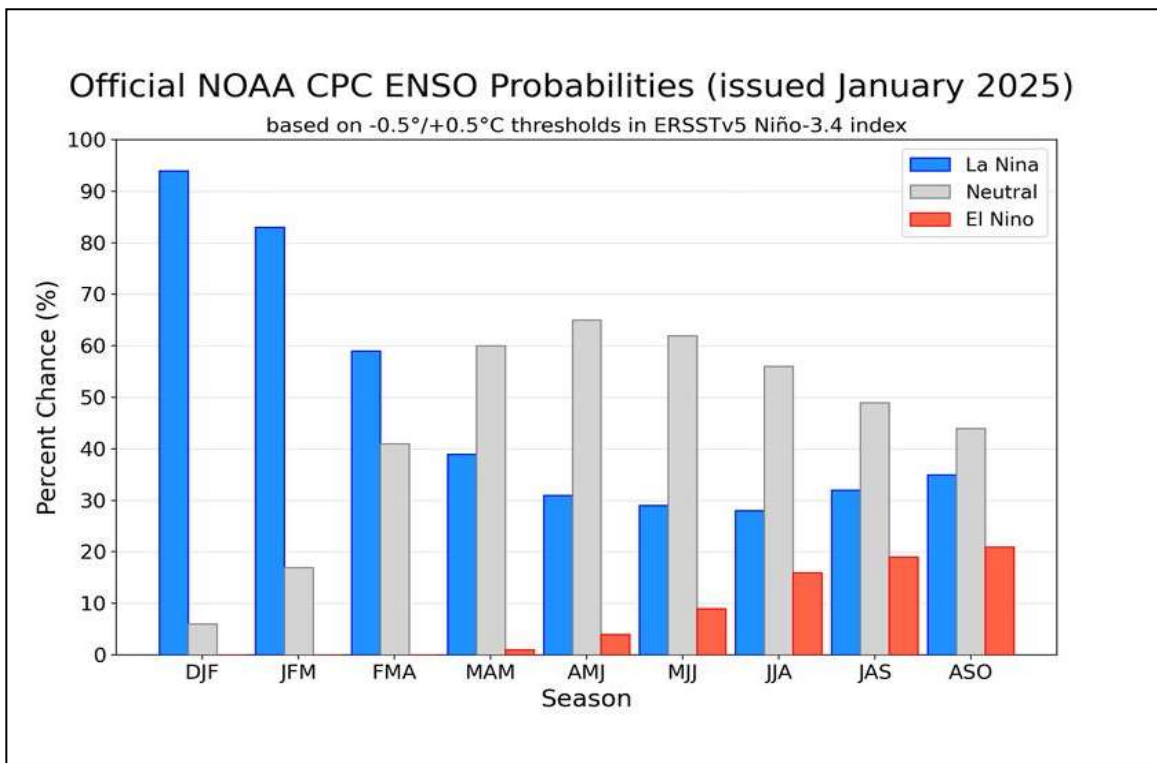


Fig 3a: ENSO forecast from Climate Prediction Center (CPC)/ IRI Forecast

1.1.1 Impacts of La Nina on monthly rainfall anomaly during February, March and April

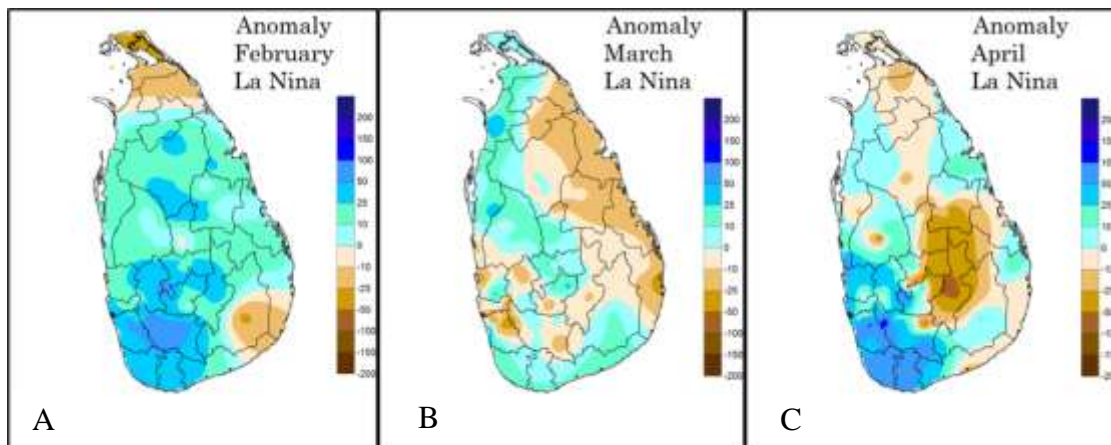


Fig 3b: Monthly Rainfall Anomaly maps of the months of February(A), March (B) and April (C) during La Nina years (Hapuarachchi et al 2016)

Research conducted by the Department of Meteorology, it has been found that, below normal rainfalls are possible over Jaffna, Killinochchi and Mulathivu districts and some areas in Vavuniya, Mannar Ampara, Monaragala and Hambantota districts and above normal rainfalls are possible over remaining areas of the country during the month of February. During the month of March, above normal rainfalls are likely over Southern province and Jaffna, Killinochchi and Mannar districts and some areas in Northwestern and Central provinces and Mullativu, Anuradhapura, Gampaha, Kalutara and Monaragala districts. Below or near normal rainfalls possible over remaining areas of the country. During the month of April above average rainfalls are likely to receive southwest part of the country and remaining areas are expected to receive near or below average rainfall while the La Nina conditions were prevailed. (Fig 3b).

1.2 The Indian Ocean Dipole (IOD) update

The Indian Ocean Dipole (IOD) is currently considered neutral, with models suggesting it will remain neutral until at least April 2025;(meaning there is no significant positive or negative IOD phase occurring at this time.) - source- BOM, Australia.

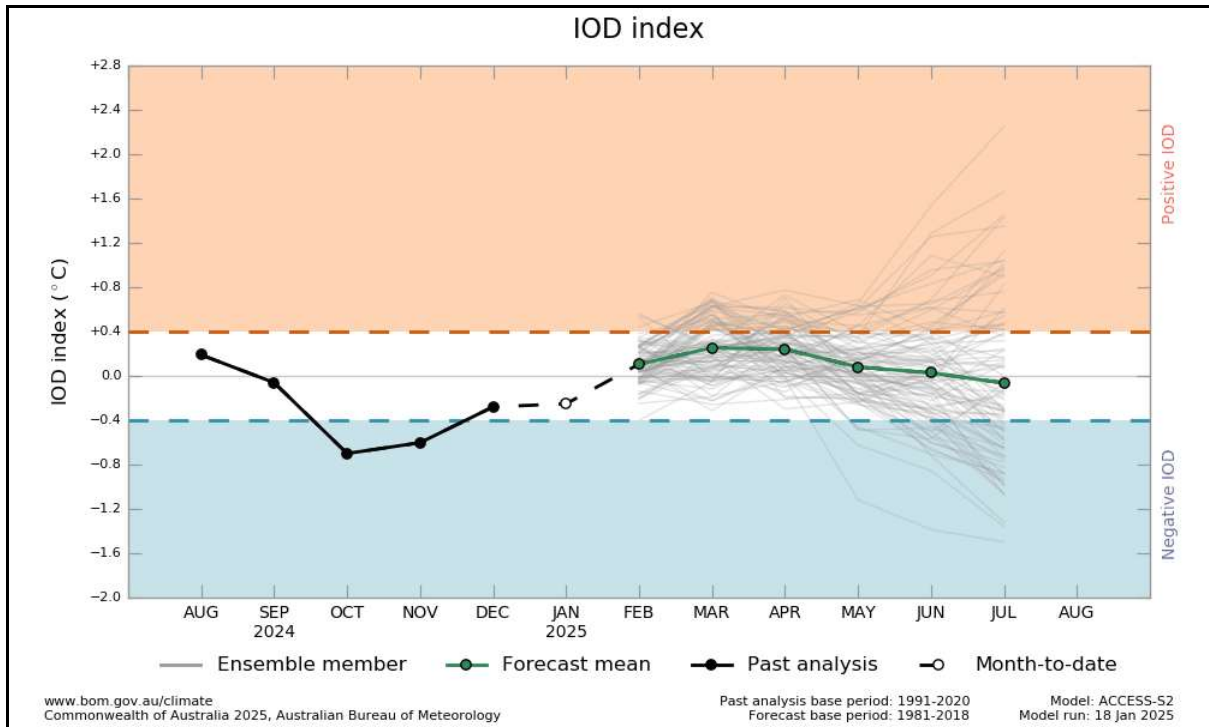


Figure 4a: IOD forecast from Australian Bureau of Meteorology