



No SF-2024-03-ENSO-IOD

Current condition and forecasts of ENSO and IOD for MAM 2024

Issued on 05th March 2024 by Seasonal forecasting Division of the Department of Meteorology, Sri Lanka.

1. El Nino and La Nina update

A transition from El Niño to ENSO-neutral is likely by April-June 2024 (79% chance), with increasing odds of La Niña developing in June-August 2024 (55% chance). Prevailing El Niño is expected to continue for the next several months, with ENSO-neutral favored during May-June 2024 (73% chance (Fig 3a)) (NOAA CPC).

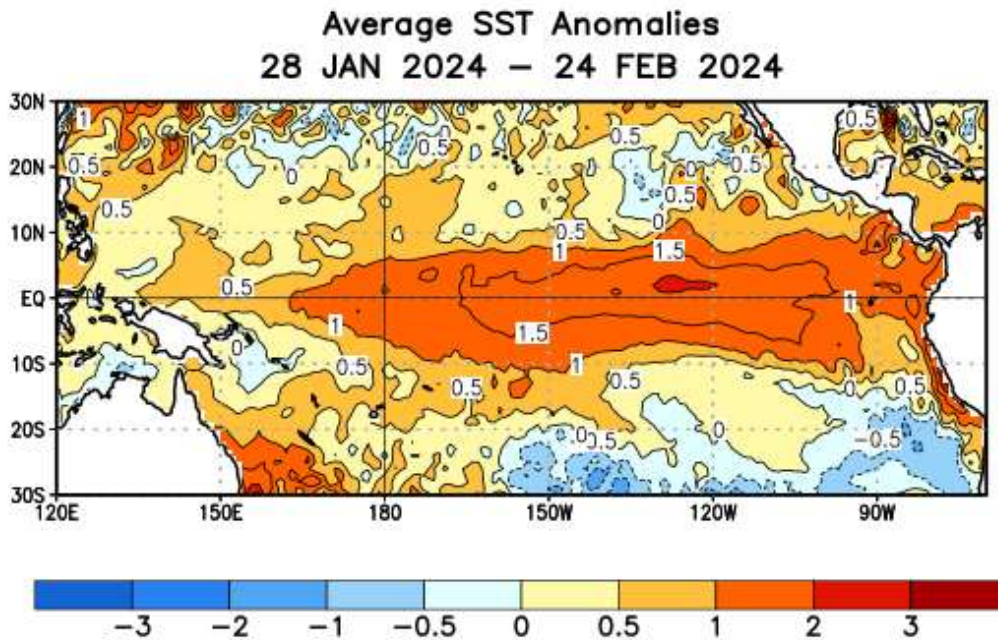


Fig 1: Observed Average sea surface temperature (SST) anomalies (°C)

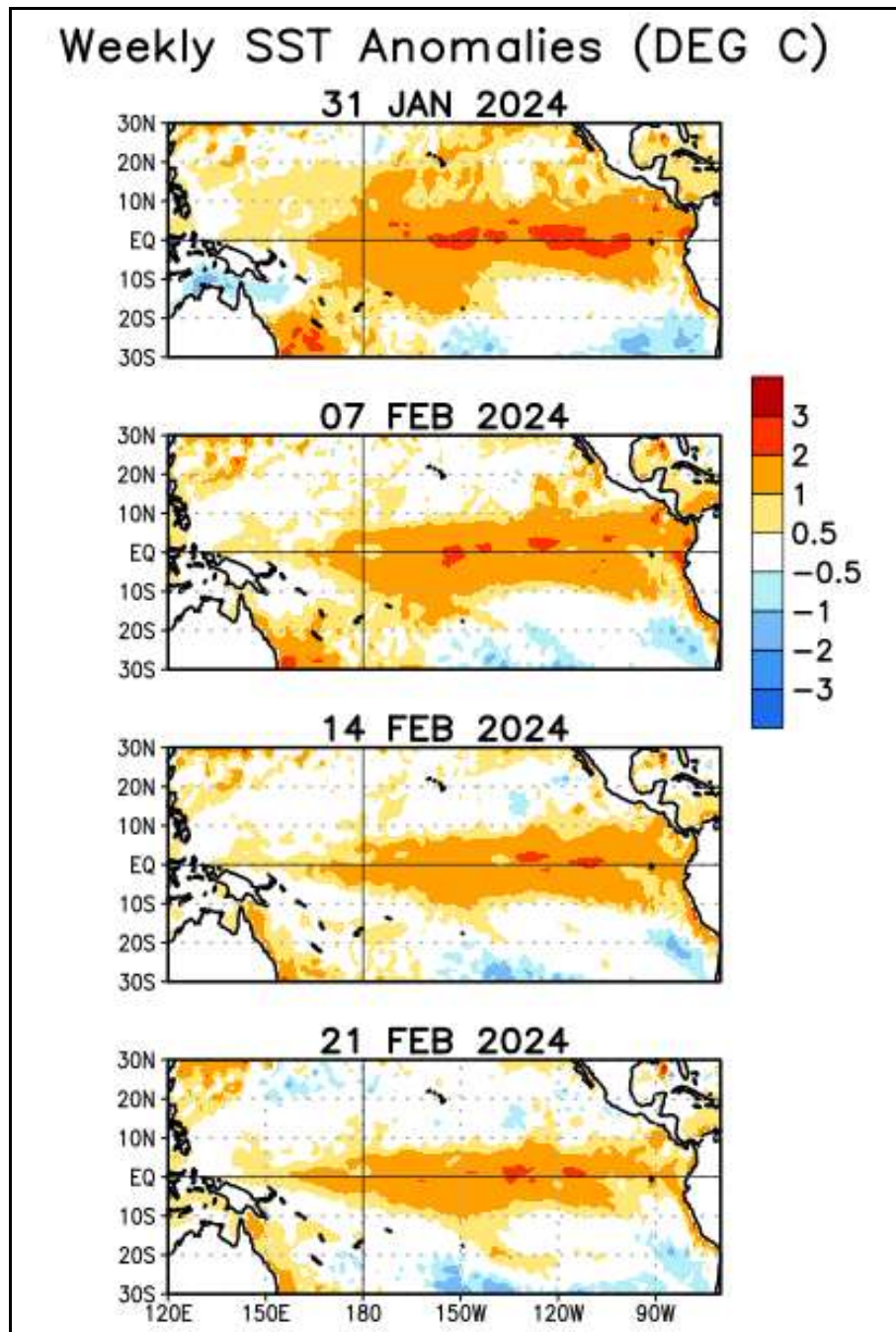


Fig 2: Weekly Observed Average sea surface temperature (SST) anomalies (°C)

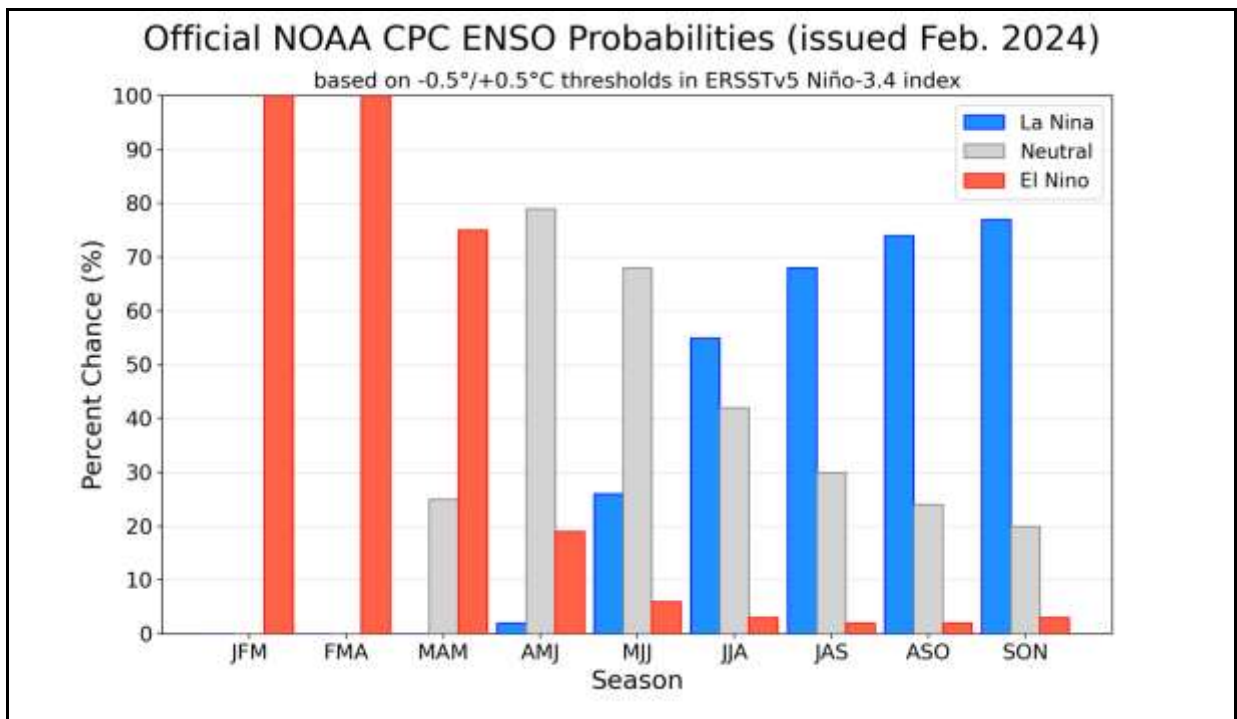


Fig 3a: ENSO forecast from Climate Prediction Center (CPC)/ IRI Forecast

1.1.1 Impacts of El-Niño on monthly rainfall anomaly during March, April and May

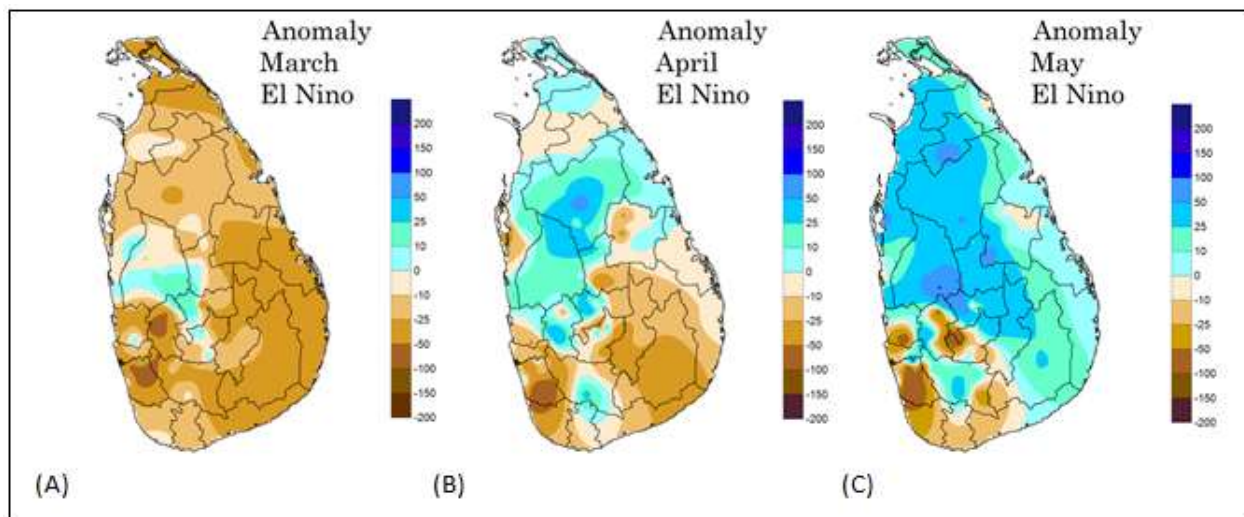


Fig 3b: Monthly Rainfall Anomaly maps of the months of March (A), April (B) and May (C) during El-Niño years (Hapuarachchi et al 2016)

A research conducted by the Department of Meteorology, it has been found that, most parts of the country had experienced below normal rainfall during the month of March and slightly above normal rainfalls were observed Anuradhpura, Trincomalee, Kilinochchi, Jaffna and Kurunegala districts and below normal over remaining areas during the month of April. During the month of May it has been observed below normal rainfalls in some areas in Western, Southern and Central

parts of the country and above normal rainfalls are possible in remaining areas during past El Nino conditions (Fig 3b(C)).

2. The Indian Ocean Dipole (IOD) update

The Indian Ocean Dipole (IOD) is currently neutral, with the IOD index being -0.05°C for the week ending 18 February 2024. Most of the International climate models suggest IOD values will remain neutral until at least April.(source- BOM,Australia).

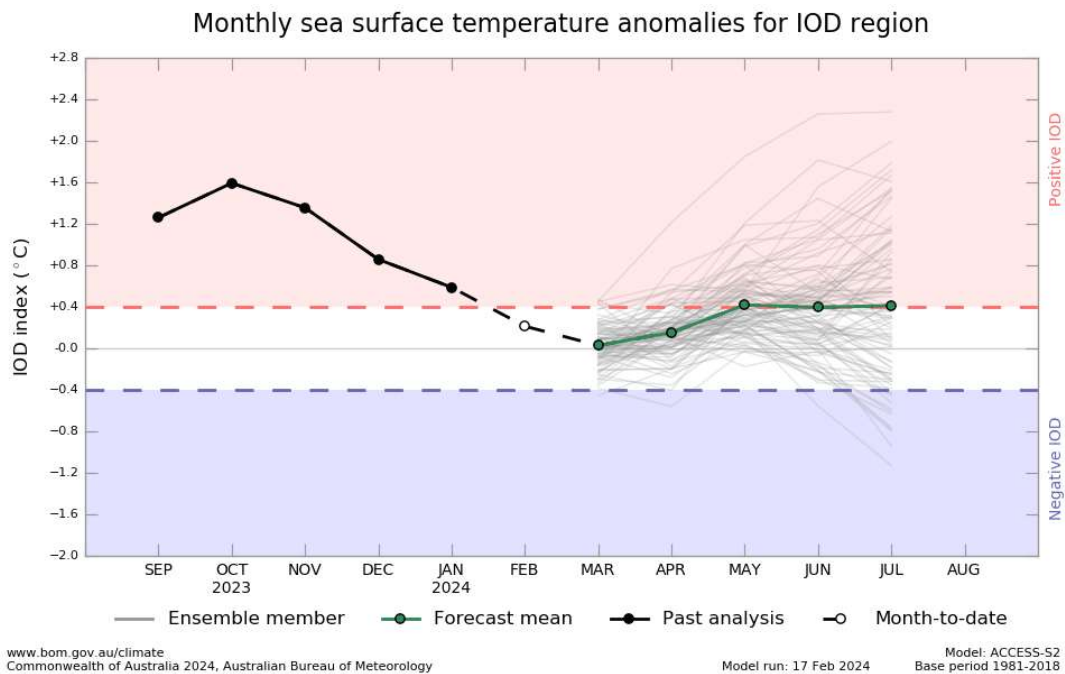


Figure 4a: IOD forecast from Australian Bureau of Meteorology