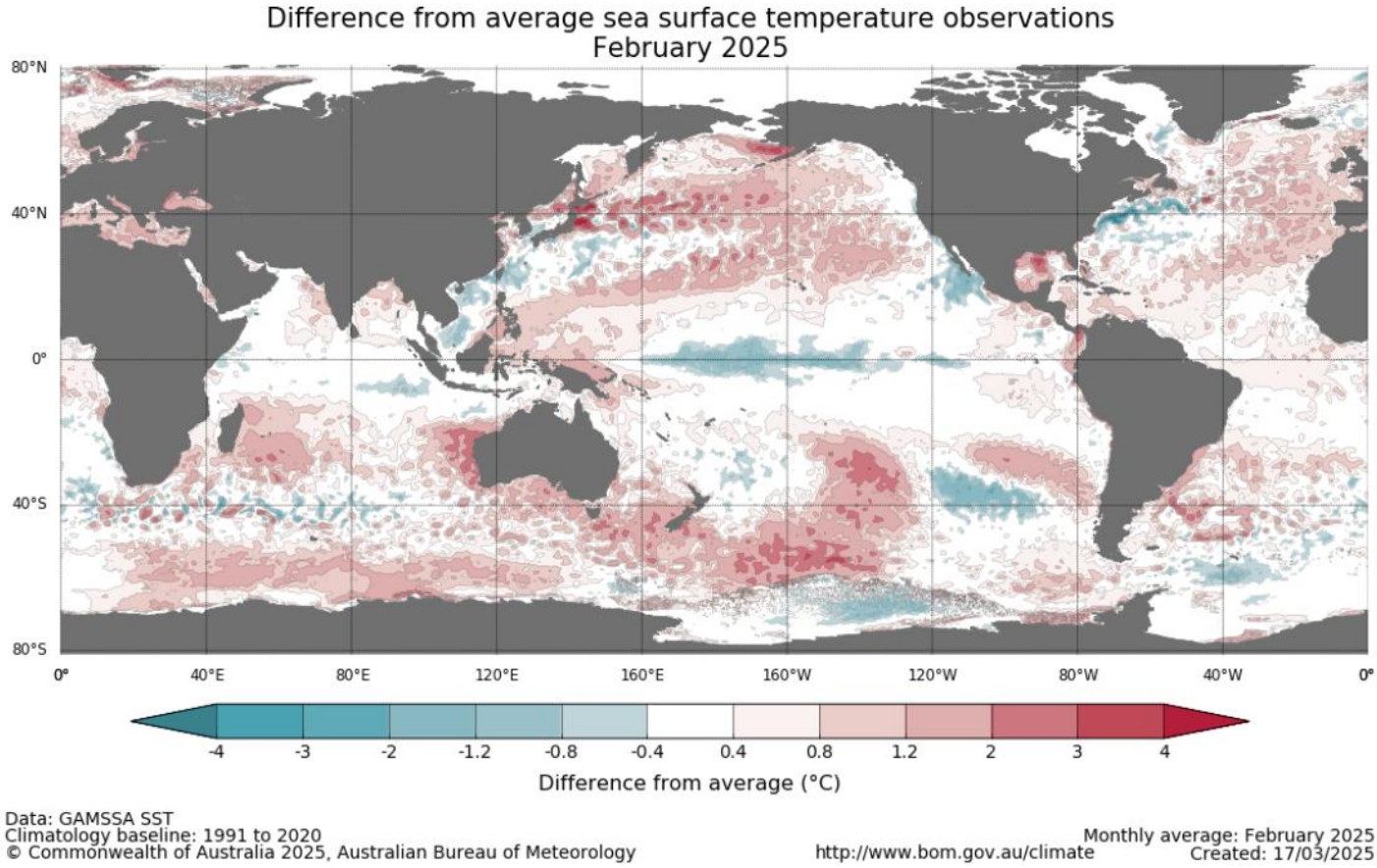
RMD ENSO Report:

19 March 2025 Compiled by Dirk J Fourie

This is not presented as a commodity trading recommendation. Weather is only one of many factors which can influence the market on any given day.

El Niño–Southern Oscillation remains neutral

The Pacific Ocean is monitored closely for the current state of the El Niño–Southern Oscillation (ENSO). ENSO refers to the oscillation between warmer (El Niño) and cooler (La Niña) states of the central and eastern tropical Pacific region. ENSO is considered one of the dominant modes of climate variability in Australia. The influence of each individual event varies, particularly in conjunction with other climate indicators such as the Indian Ocean Dipole (IOD).
The ENSO signal is characterised by sea surface temperature (SST) patterns in the central and eastern tropical Pacific. Cooler than average SSTs are associated with La Niña, while warmer SSTs are associated with El Niño.



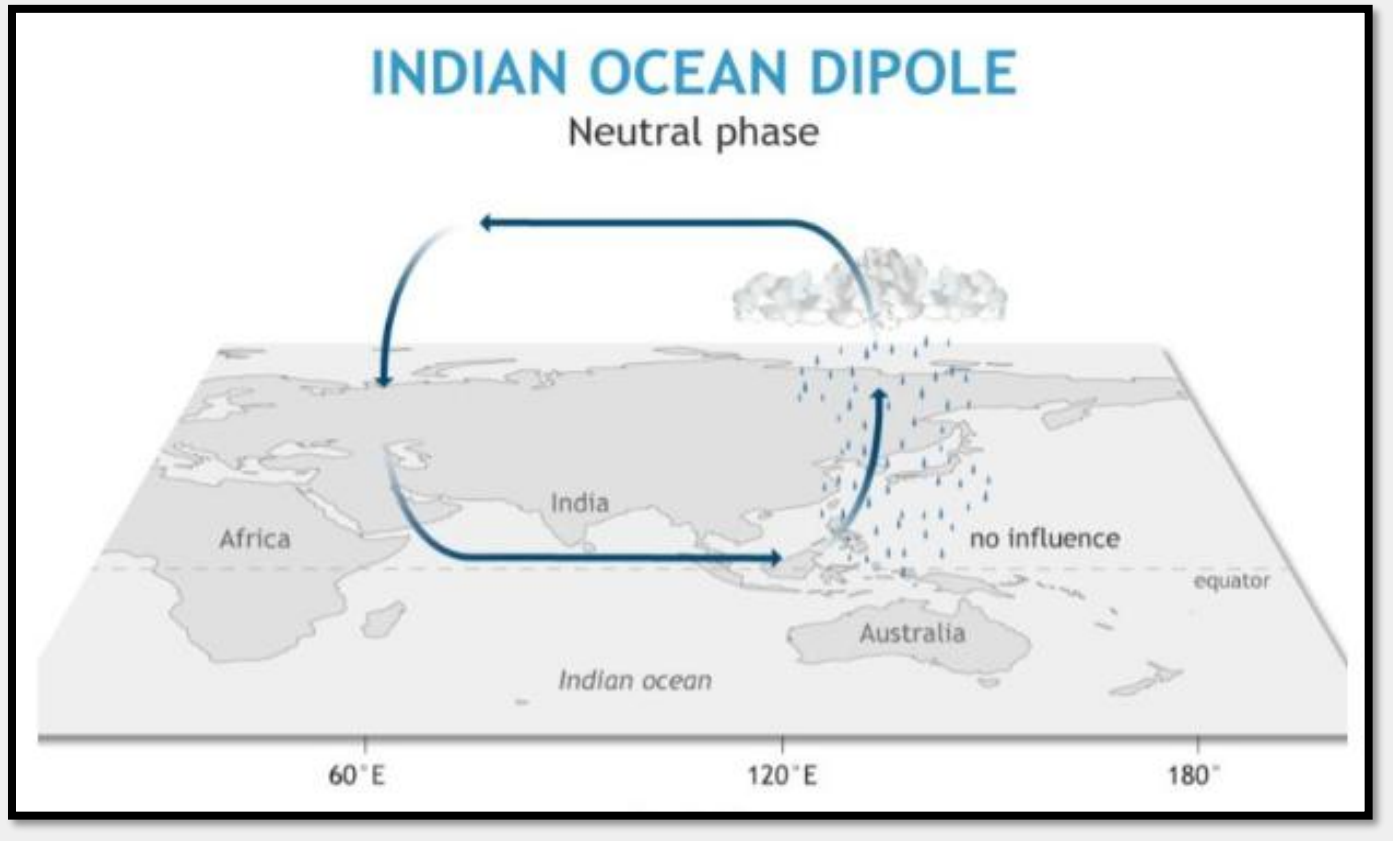
El Niño /La Niña map

- Global SSTs remain substantially above average. Each month in 2025 has been the second warmest recorded for its respective month, only slightly cooler than 2024.
- The El Niño–Southern Oscillation (ENSO) is neutral. SSTs in the central tropical Pacific have risen since February, with the latest Niño3.4 value (+0.14 °C for the week ending 16 March) remaining firmly within the neutral range and reaching a positive value for the first time since August 2024.
- The Bureau's model predicts neutral ENSO (neither El Niño nor La Niña) until at least August. This is consistent with all surveyed international models.

Indian Ocean

The Indian Ocean Dipole (IOD) is defined by the difference in sea surface temperatures between the eastern and western tropical Indian Ocean. The influence of the IOD varies in conjunction with other climate indicators such as the El Niño–Southern Oscillation (ENSO).

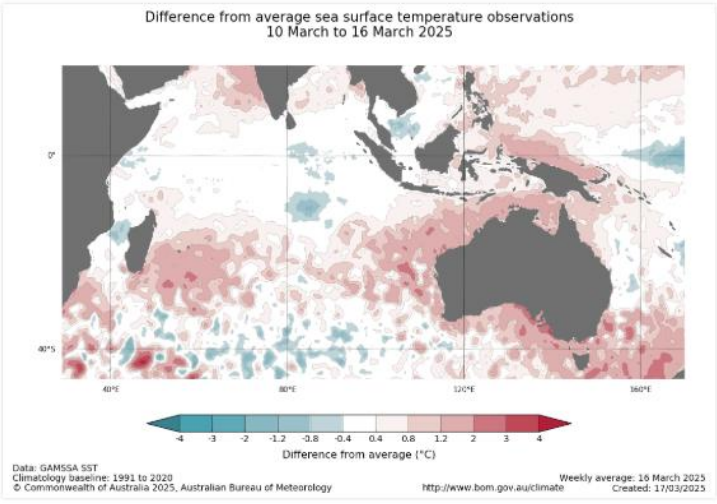
During a negative IOD, waters are typically warmer than average in the eastern parts of the tropical Indian Ocean and cooler than average in the west. During a positive event, the reverse occurs, with cooler than average waters in the eastern parts of the tropical Indian Ocean and warmer in the west. Specific regions are monitored in the eastern and western Indian Ocean to identify IOD event development.



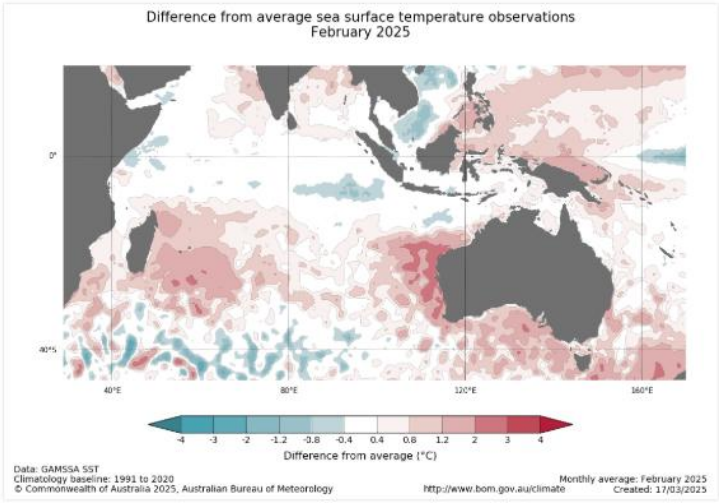
The Indian Ocean Dipole.

- The Indian Ocean Dipole (IOD) is neutral. The latest value of the IOD index is +0.21 °C as at 16 March.

Weekly temperature anomalies in the tropical Indian Ocean



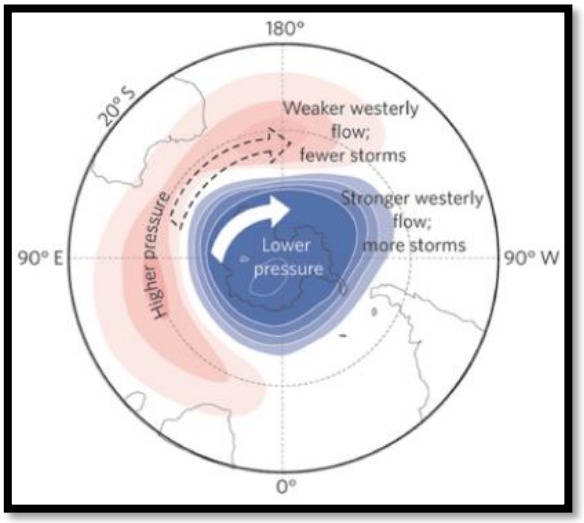
Monthly temperature anomalies in the tropical Indian Ocean



Southern Annular Mode (SAM)

The Southern Annular Mode (SAM) refers to the north-south movement of rain-bearing westerly winds and weather systems in the Southern Ocean, compared to the usual seasonal position. A positive SAM refers to a southward shift while a negative SAM refers to a northward shift. The typical impact on Australian rainfall from positive and negative phases of SAM depends on the time of year and interaction with other climate indicators such as El Niño or La Niña.

Sustained values of the SAM index above +1 indicate a positive SAM event, while sustained values below -1 indicate a negative SAM event



The Southern Annular Mode (SAM) is positive as at 15 March. Forecasts show the SAM will likely become neutral later this week and will stay neutral until at least mid-April.

Sea surface temperatures (SSTs) in the Australian region during February 2025 were the warmest on record for all Februarys since records began in 1900. Monthly SSTs in the Australian region have been the warmest on record for each respective month since October 2024.

The latest weekly SST analysis shows warmer than average waters around most of the Australian coastline, reaching up to 3 °C above average off Western Australia's Pilbara and Gascoyne coasts, along the South Australian and western Victorian coasts and in parts of the Tasman Sea. Large areas of the Great Australian Bight and Tasman Sea have warmed by up to 1 °C over the past two weeks. Oceanic heat is returning in the Coral Sea following a temporary cooling influenced by Tropical Cyclone Alfred.

Source:

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