## **RMD ENSO Report:**

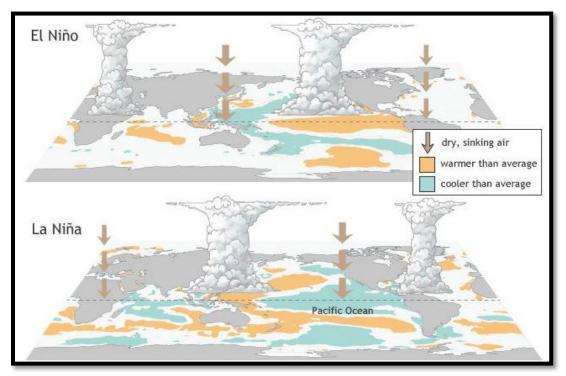
#### 19 February 2025

#### 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.

# The El Niño-Southern Oscillation and Indian Ocean Dipole remains neutral

The Pacific Ocean is monitored closely for the current state of the <u>El Niño</u>—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

The El Niño-Southern Oscillation (ENSO) has remained neutral for the past 6 months, despite changes in sea surface temperature patterns consistent with a developing La Niña.

Since late December 2024, the tropical Pacific has been La Niña-like, with signs of interactions between oceanic and atmospheric indices. While the 30-day Southern Oscillation Index (SOI) is currently above the La Niña threshold (as of 16 February), there is no clear signal of sustained atmospheric coupling with the ocean.

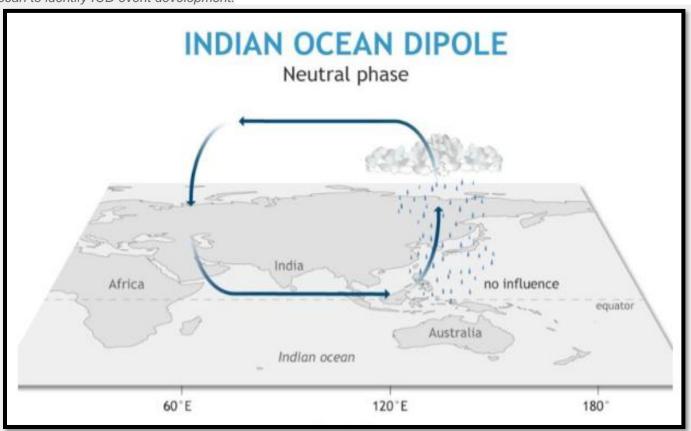
SSTs in the central tropical Pacific have fluctuated around the La Niña threshold of -0.8 °C since late 2024, with the most recent value of Niño3.4 (-0.58 °C for the week ending 15 February) within the neutral range.

The Australian Bureau's model forecasts neutral ENSO (neither El Niño nor La Niña) from March until at least July. This is consistent with all surveyed international models.

## **Indian Ocean**

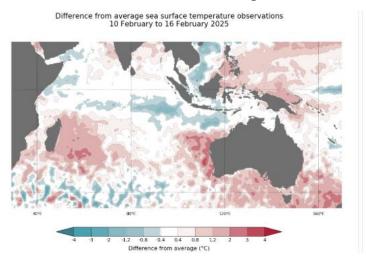
The Indian Ocean Dipole (IOD) is defined by the difference in sea surface temperatures between the eastern and western tropical Indian Ocean. The influence of the IOD varies in conjunction with other climate indicators such as the El Niño—Southern Oscillation (ENSO).

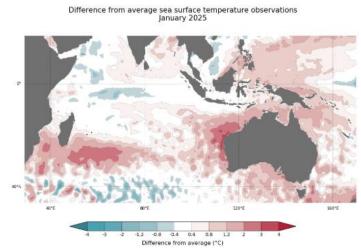
During a negative IOD, waters are typically warmer than average in the eastern parts of the tropical Indian Ocean and cooler than average in the west. During a positive event, the reverse occurs, with cooler than average waters in the eastern parts of the tropical Indian Ocean and warmer in the west. <u>Specific regions</u> 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 +0.47, above the positive IOD threshold; however, positive index values have not been sustained and have limited significance at this time of year.

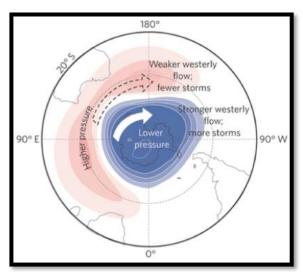




## Southern Annular Mode (SAM)

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 an 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 negative, as on 14 February. Forecasts show the SAM will likely become neutral in the coming days and remain neutral until at least the end of February.

#### Source:

bom.gov / SAWB / GRADS/ NASS / DTN / AWB / CWB / Intellicast / FNMOC / Unisys/ NOAA/ YR / KBWS / Wunderground / TWC / WordPress / WXRisk / Drovers / TWC / AG-BoM / Accuweather / SPC / NOAA / soybeansandcorn / Windy / agrimoney / en sat24 / agweb / blackseagrain / Europa / woeurope / timeanddate / myweather2 / meteox / meteoblue / intellicast / iweather / Columbia / weather-atlas / ec.europa.eu / NASA / nasagrace / usda.gov / USDA/WAOB

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