



Brief on Impact of El Niño on Rainfall and Temperature over Mauritius and cyclone activity over SWIO

The El Niño–Southern Oscillation (ENSO) is a naturally occurring climate pattern over the equatorial Pacific involving fluctuations ocean temperatures and atmospheric conditions. El Niño and La Niña are termed as the warm and cold phases of ENSO. Through teleconnections, they affect the climate, shifting the wind and pressure patterns beyond the tropics thereby changing the temperature, rainfall and behaviour of weather extremes such as storms across various continents. El Niño is characterised by above-average sea surface temperatures over the central and eastern equatorial Pacific Ocean. Major historical El Niño events have occurred during the following periods: 1957–58, 1972–73, 1982–83, 1997–98, 2015–16 and 2023-24.

Our analysis indicates that the major El Niño events were generally associated with close normal cumulative summer rainfall and above-normal temperatures over Mauritius, while cyclone activity over the Southwest Indian Ocean cyclone basin was relatively less than normal.

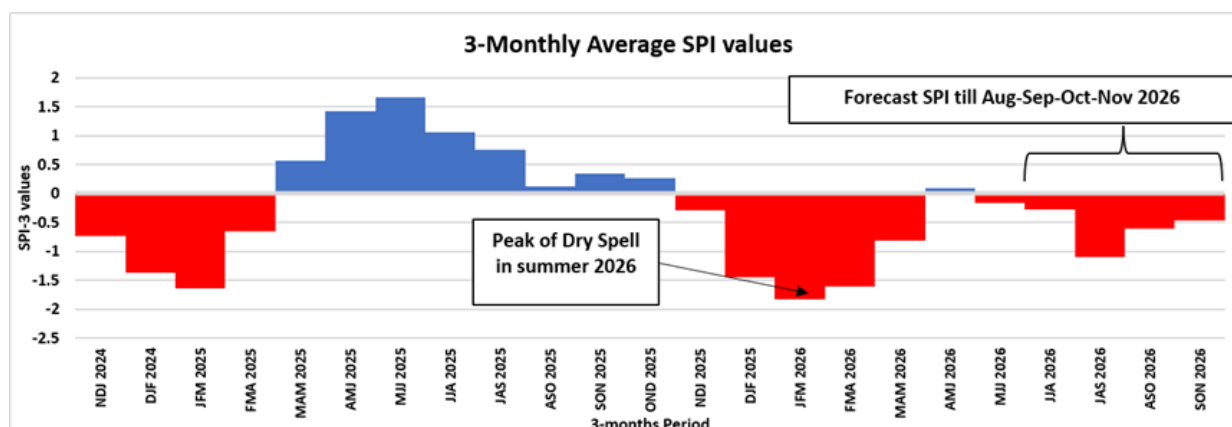
In addition, it is to be noted that other major climate drivers over the Indian Ocean such as the Indian Ocean Dipole (IOD) and the Subtropical Indian Ocean Dipole (SIOD) cause an east to west shift in the sea surface temperature, thereby strongly influencing the weather pattern in the region. Studies show that IOD and SIOD may counteract the effects of El Niño over the Indian Ocean.

As per World Meteorological Organisation and global centres, the El Niño is continuously intensifying since June 2026 and it is expected to strengthen further and to peak around the period October to December 2026.

In view of above, the Mauritius Meteorological Services (MMS) is closely monitoring the evolution of the 2026 El Niño event, the behaviour of both IOD, SIOD and other climate drivers that affect the rainfall, temperature and cyclone activities.

This outlook provides a guidance on the expected rainfall and temperature over Mauritius, and the evolution of tropical storms over the SWIO.

The MMS uses the Standardised Precipitation Index (SPI) to monitor rainfall deficits which result into prolonged dry spell events. Negative SPI values have been observed in May-Jun-Jul-26 with a 3-month average value of -0.17, despite the second half of June-2026 experienced a temporary wet spell, which was insufficient to compensate the on-going dry spell. The Figure below shows the 3-months average SPI value for Mauritius.



Rainfall

Based on available information, the cumulative rainfall for the period August to November 2026 is expected to be slightly below normal of the Long-Term-Mean 1991-2020 as shown in the table below.

Months (2026)	Expected rainfall Amount (mm)	Percentage of LTM 1990-2020	Status
August	85	80%	Slightly Below Normal
September	70	80%	Slightly Below Normal
October	60	80%	Slightly Below Normal
November	75	90%	Normal

The behaviour of IOD, SIOD and Madden-Julian Oscillation (MJO) may increase the uncertainty in the expected rainfall in Mauritius. It is to be noted that temporary unstable atmospheric conditions may change the expected rainfall.

Temperature

The El Niño conditions and the likelihood of positive IOD may cause above normal temperatures over Mauritius during the 2026–2027 summer season, resulting into frequent warm spells.

Storm activity

The analysis of MMS indicates that during very strong El Niño, cyclone activity over Southwest Indian Ocean (SWIO) is relatively low. This does not mean that Mauritius may not be directly affected by a tropical cyclone.

Acting Director

Mauritius Meteorological Services

10 August 2026