





FAMINE EARLY WARNING SYSTEMS NETWORK

Mozambique

Monthly Climate and Weather

19 June 2025

<u>Highlights</u>

- El Niño Southern Oscillation (ENSO)-neutral conditions persisted during May 2025. Nearaverage sea-surface-temperatures (SSTs) continued over the equatorial Pacific Ocean. The ENSO outlooks predict ENSO-neutral to continue with an 82% chance during June – August 2025, persist with a 48% chance, but may transition with a 41% chance into La Niña during November – January 2025/2026.
- During May 2025, most areas of Mozambique received between 10-75 mm of rainfall, which was 100 to over 500% above average. In contrast, Gaza, Maputo, and areas of northeastern Mozambique experienced drier than average conditions, which were over 75% below average. During July – September 2025, rainfall forecasts indicate a slight to moderate tilt in the odds to favor below average rainfall in central Mozambique.
- During May 2025, western, southern, and parts of central Mozambique experienced 1-3°C above average maximum temperatures. In addition, the western, southeastern, and northeastern provinces experienced 1-3°C above average minimum temperatures. During July September 2025, temperature forecasts call for above average temperatures across Mozambique, with higher probabilities for above average temperatures in the northern and southern regions.
- During March May 2025, parts of southern Mozambique and areas of Zambézia, Nampula, Niassa, and Cabo Delgado experienced drier than average conditions, while the remainders of the country experienced near average to wetter than average conditions, based on the Standardized Precipitation Index (SPI). Drought forecasts suggest that drier than average conditions should ease in southern Mozambique during the next four weeks.
- As of late May, harvesting of main season cereals was complete or near completion in Mozambique, with *favourable* maize conditions in the southeastern, parts of central, and northwestern provinces and poor conditions in Zambézia, Nampula, and areas of Cabo Delgado due to drier than average conditions, cyclone impacts, and conflicts.



The FEWS NET Monthly Climate and Weather information bulletin is based on current weather and climate information and monthly and seasonal outlooks from the NOAA CPC. Information on crops, soil moisture, flooding, and evapotranspiration data were produced by FEWS NET, USGS, NASA and USDA. Various sources were used to assess impacts of extreme conditions. Questions or comments about this product may be directed to Dr. Wassila Thiaw, Head, International Desks/NOAA, <u>wassila.thiaw@noaa.gov</u>. Questions about the USAID FEWS NET activity may be directed to Dr. James Verdin, Program Manager, FEWS NET/USAID, <u>jverdin@usaid.gov</u>.



Figure 1: Seasonal calendar for Mozambique. Source: FEWS NET

Current Climate Modes and Teleconnections

- During May 2025, ENSO-neutral conditions continued, with near average SSTs across much of the equatorial Pacific Ocean. Subsurface temperatures were near to above average across the equatorial Pacific and were above average at depth in the central and western Pacific.
- The ENSO outlook anticipates ENSO-neutral conditions to continue with an 82% chance during June – August 2025. Moreover, ENSO-neutral may persist with a 48% chance, but also could transition with a 41% chance into La Niña during November – January 2025/2026 (Fig. 2). The latest update of the NOAA Climate Prediction Center's ENSO diagnostic discussion can be found <u>here</u>.



Figure 2: Official CPC ENSO probabilities outlook. Source: NOAA/NCEP

Extreme Events

- Over the past 30 days, northeastern Mozambique experienced stronger than average easterly winds, whereas the southern provinces experienced stronger than average southerly winds.
- Over the past four weeks, Maputo registered 120 fire alerts, which were <u>high</u> compared to the number of fire alerts during the same period going back to 2012.

Rainfall/Precipitation

Past 3 months (March - May 2025):

- <u>Totals</u>: The northern two-thirds of Mozambique received a rainfall total between 100-500 mm, while the southwest regions recorded less than 50 mm of rainfall (**Fig. 3a**).
- <u>Anomalies</u>: Most areas of central and northern Mozambique received 50-300% above average rainfall, whereas the southern and part of western provinces registered 20-75% below average rainfall (**Fig. 3b**).



Figure 3: Spatial distribution for March - May 2025 (a) total precipitation and (b) total precipitation anomaly in percent of average. **Source: NOAA/NCEP**

Past 1 month (May 2025):

- <u>Totals</u>: Most areas of Mozambique recorded rainfall between 10-75 mm. However, Zambézia and pocket areas of Niassa received over 100 mm rainfall (**Fig. 4a**). In contrast, much of Gaza, Maputo, Nampula, and part of Cabo Delgado experienced dry conditions.
- <u>Anomalies</u>: Southeastern, western, central, and northwestern Mozambique registered 100 to over 500% above average rainfall, while Gaza, Maputo, parts of Nampula and Cabo Delgado saw rainfall less than 75% below average (Fig. 4b). Niassa accumulated rainfall totals of 680% above average (Table 1).



Figure 4: Spatial distribution for May 2025 (a) total precipitation and (b) total precipitation anomaly in percent of average. **Source: NOAA/NCEP**

Monthly and Seasonal Forecasts (July 2025 and July – September 2025):

- <u>Monthly</u>: Rainfall forecasts suggest a slight tilt in the odds to favor <u>below average</u> rainfall over pocket areas of Zambézia, Nampula, and Gaza during July 2025.
- <u>Seasonal</u>: Rainfall forecasts indicate that there is a slight to moderate tilt in the odds to favor below average rainfall in central Mozambique during July September 2025 (Fig. 5).



Figure 5: Rainfall forecast for July - September 2025. Source: NOAA/NCEP

Location	Past 3-Month		Past 1-Month		Seasonal Forecast	
	Total (mm)	Anomaly (%)	Total (mm)	Anomaly (%)	Climatology (mm)	Anomaly (mm)
Cabo Delgado province	343	52	12	80	56	1
Gaza province	66	-28	5	-16	40	-3
Inhambane province	159	39	21	213	49	-2
Manica province	202	49	14	179	50	-3
Maputo province	56	-46	3	-58		
Nampula province	320	55	7	30	74	5
Niassa province	280	49	30	680	36	-1
Sofala province	358	104	32	417	54	-2
Tete province	141	17	12	406	24	-2
Zambézia province	273	43	63	667	81	1

Table 1: Total rainfall and anomalies for the past three months and one month and seasonal rainfall climatology and anomaly forecast over provinces of Mozambique.

Temperature

Past 3 months (March - May 2025):

- <u>Maximums</u>: Western, central, southeastern, and northwestern Mozambique experienced maximum temperatures between 1-3°C above average, while the remainders of the country experienced near average conditions (**Fig. 6a**).
- <u>Minimums</u>: Western, southern, and north-central Mozambique experienced 1-3°C above average minimum temperatures, whereas the central and northern regions experienced near average minimum temperatures (Fig. 6b). Inhambane recorded minimum temperatures of 1.8°C above average (Table 2).



Figure 6: Spatial map for March - May 2025 (a) mean maximum temperature anomaly and (b) mean minimum temperature anomaly. **Source: NOAA/NCEP**

Past 1 month (April 2025):

- <u>Maximums</u>: Southeastern and parts of central and western Mozambique experienced 1-3°C above average maximum temperatures, while the rest of the country experienced near average conditions (**Fig. 7a**).
- <u>Minimums</u>: Western, southeastern, and northeastern Mozambique experienced minimum temperatures that were 1-2°C above average, whereas the central, southwestern, and northwestern provinces experienced near average minimum temperatures (**Fig. 7b**).



Figure 7: Spatial map for May 2025 (a) mean maximum temperature anomaly and (b) mean minimum temperature anomaly. **Source: NOAA/NCEP**

Monthly and Seasonal Forecasts (July 2025 and July – September 2025):

- <u>Monthly</u>: Temperature forecasts suggest a slight to moderate tilt in the odds to favor <u>above average</u> temperatures across Mozambique during July 2025.
- <u>Seasonal</u>: Temperature forecasts call for above average temperatures across much of Mozambique, with portions of the northern and southern provinces indicating over 50% chance for above average temperatures during July September 2025.





Table 2: Maximum temperature and minimum temperature and anomaly for the past three months and one month and seasonal mean temperatures and anomaly forecast over provinces of Mozambigue.

Location	Past 3-Month		Past 1-Month		Seasonal Forecast	
	Max/Min Temp (°C)	Max/Min Anomaly (°C)	Max/Min Temp (°C)	Max/Min Anomaly (°C)	Temp (°C)	Above/Below- average (°C)
Cabo Delgado province	30/21	0.5/0.7	29/20	0.2/1.1	23	0.2
Gaza province	30/19	0.9/1.3	29/16	1.1/0.9	21	0.5
Inhambane province	30/21	1.2/1.8	28/18	1.1/1.6	22	0.4
Manica province	29/19	1.1/1.1	27/16	0.8/0.7	19	0.4

Maputo province	29/19	0.3/0.6	28/15	0.9/0		
Nampula province	30/21	0.7/0.8	28/20	0.4/1.6	22	0.3
Niassa province	28/18	1.1/-0.2	27/17	0.5/0.4	20	0.3
Sofala province	30/20	1.2/0.4	28/18	0.7/0.2	22	0.4
Tete province	30/20	1.6/1.3	28/17	1/1.4	20	0.3
Zambézia province	29/21	0.7/0.9	28/19	0.4/1.3	21	0.2

Flooding and Areas of Inundation

- Currently, there is no major flooding in Mozambique.
- Over the next 30 days, the risks for flooding are minimal to non-existent for Mozambique.

Drought and Dryness

The Standardized Precipitation Index (SPI) is used to characterize meteorological drought. SPI compares the precipitation over a specific period of time with the climatology from that same period. Therefore, the SPI values can be thought of as the number of standard deviations that the observed anomaly deviates from the climatology. The 1-month SPI values are a good representation of the monthly precipitation anomaly as well as the soil moisture and vegetation health. The 3-month SPI values are a good representation of seasonal precipitation anomalies. The Standardized Precipitation Evapotranspiration Index (SPEI) is similar to the SPI, but it also takes evapotranspiration into account (and therefore the impact of temperatures on water demand).

Past 3 months (March – May 2025):

• Parts of Gaza, Maputo, and local areas of Zambézia, Nampula, Niassa, and Cabo Delgado experienced drier than average conditions, while the remainders of the country recorded near average to wetter than average conditions (**Fig. 9a**).

Past 1 month (May 2025):

• Pocket areas of Maputo, Zambézia, and Nampula experienced drier than average conditions, whereas the remainders of the country recorded wetter than average conditions (**Fig. 9b**).



Figure 9: Spatial structure of (a) March - May 2025 Standardized Precipitation Index (SPI) and (b) May 2025 SPI. **Source: NOAA/NCEP**

Current/Forecast (31 March – 28 June 2025):

• SPI forecast, which is constructed from observed precipitation from 31 March to 31 May 2025 and forecasted rainfall data from 1 June to 28 June 2025, suggests an improvement in drier-than-average conditions in southwestern Mozambique (**Fig. 10**).



Figure 10: Spatial structure of SPI constructed from observations for 31 March to 31 May 2025 and 4 weeks forecast ending on 28 June 2025. **Source: NOAA/NCEP**

Normalized Difference Vegetation Index (NDVI)

NDVI is a measure of vegetation health, where high NDVI values are indicative of healthy, dense vegetation, and low NDVI values are indicative of less or no vegetation. Therefore, negative NDVI anomalies suggest deteriorated vegetation health relative to the long-term average.

Current (21 – 31 May 2025):

NDVI values exceeding 100% of the long-term average, which indicated favorable vegetation conditions, spread across western, southeastern, and parts of north-central and northeastern Mozambique, whereas NDVI values below 90% of the long-term average, indicating degraded vegetation conditions, were depicted over parts of Gaza, Maputo, and local areas of Niassa, Nampula, and Cabo Delgado (Fig. 11).



Figure 11: Spatial structure of NDVI anomaly for 21 - 31 May 2025. Source: USGS/EROS

Water Requirement Satisfaction Index (WRSI)

• As of late May 2025, <u>WRSI</u> values indicated *poor* to *failed* maize crops in southern Mozambique, but exhibited *good* to *very good* crop conditions across the central, western, and northern regions.

GEOGLAM Crop Monitor

 As of late May, harvesting of main season cereals was complete or nearing completion in Mozambique, with *favourable* maize conditions in the southeast, central, and part of northwestern regions and poor conditions in Zambézia, Nampula, and areas of Cabo Delgado due to drier-than-average conditions, cyclone impacts, and conflicts.



Additional Resources

https://www.inam.gov.mz/index.php/pt/ https://www.sadc.int/pillars/meteorology https://fews.net/southern-africa/mozambique

Annex



[[]Crop Type] Maize [Location]: Zambézia

