

Malawi 10-day Weather and Agrometeorological Bulletin

"In support of National Early Warning Systems and Food Security"



Period: 01 – 10 March 2025

Season: 2024/2025 Release date: 14 March 2025

HIGHLIGHTS

- Sporadic rainfall activities across Malawi ...
- Maize at cobbing to maturing stages, some harvesting especially over the south...
- Wet conditions expected to persist mainly over southern and northern areas ...



Figure 1: Observed dekadal and cumulative seasonal rainfall as percentage of normal for Malawi

1.0 WEATHER SUMMARY

A broad equatorial trough was dominant over the country during the first dekad of March 2025 resulting in isolated thunderstorms and locally heavy rains mainly over the south and northern lakeshore. Dry conditions were experienced over central areas.

1.1 RAINFALL SITUATION

During the first dekad of March 2025, sporadic rainfall activities were experienced over the country. The recorded rainfall amounts were generally within the normal to below normal range of historical dekadal amounts over majority of areas with extreme below normal scenario over parts of Dedza, Salima, Mangochi and Ntcheu districts. More in Map 1 from Figure 1. As of 10th March 2025, the cumulative rainfall amounts still indicates normal to above normal conditions for the southern areas of the country while normal to below normal for most of northern and central areas. (Map 2 from Figure 1).

Stations that recorded rainfall amounts exceeding 100mm during the reporting period included Vinthukutu Agriculture in Karonga registering the highest of 185.6mm in 3 rainy days. Mulanje Boma recorded 180.6mm in 4 rainy days, Satemwa Tea Estate in Thyolo recorded 132.6mm in 3 rainy days, Dwangwa Sugar Estate in Nkhotakota recorded 129mm in 5 rainy days, Lujeri Tea Estate in Mulanje recorded 127mm in 3 rainy days, Chingale Agriculture in Zomba recorded 126mm in 4 rainy days, Mimosa Meteorological station in Mulanje recorded 121.2mm in 2 rainy days, Chintheche Agriculture in NkhataBay recorded 112.9mm in 4 rainy days, Zomba RTC recorded 109.8mm in 3 rainy days, Chancellor College in Zomba recorded 108.5mm in 3 rainy days, Nkhotakota Meteorological station recorded 105.4mm in 5 rainy days, Karonga Meteorological station recorded 104.5mm in 5 rainy days, Baka Research Station in Karonga recorded 103.7mm in 5 rainy days, while Mbawa Research Station in Mzimba recorded 102mm in 4 rainy days. Figure 2 below shows the rainfall distribution across the country.



Figure 2: Observed dekadal rainfall for Malawi, 01-10 March 2025

In terms of rainy days, on average 3 rainy days were registered across the reporting stations. Mzuzu Meteorological station and Zombwe Agriculture in Mzimba had the highest of 6 rainy days while Dwangwa Sugar Estate, Nkhotakota Meteorological station, Karonga Meteorological station, Baka Research Station, Lisasadzi Agriculture in Kasungu and Nkhata Bay Meteorological station had 5 rainy days. Figure 3 below shows the distribution of rainy days observed.



Figure 3: Dekadal rainy days for Malawi, 01-10 March 2025

1.2 AIR TEMPERATURE

Malawi experienced warm to hot temperatures during the period under review with the average maximum ranging from 25.1°C at Mzimba Meteorological station to 33.5°C at Ngabu Meteorological station in Chikwawa while for the minimum temperature the average ranged from 16.4°C at Dedza Meteorological station to 24.6°C at Ngabu Meteorological station.

1.3 RELATIVE HUMIDITY

During the period under review air over Malawi was moderately moist and the daily average Relative Humidity values recorded from various weather stations across the country ranged from 62% at Nkhotakota Meteorological station to 86% at Dedza Meteorological station.

1.4 WIND SPEEDS

The daily average wind speed measured at a height of two metres above the ground ranged from 1.4km per hour at Mangochi Meteorological station to 7.6 km per hour at Salima Meteorological station.

1.5 SUNSHINE HOURS

Generally medium to long hours of bright sunshine were observed over Malawi during the period 01 to 10 March 2025. The average

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daily values of sunshine hours had ranged from 6.5 hours per day at Mimosa Meteorological station to 8.5 hours per day at Salima Meteorological station and consequently the amount of Solar Radiation had ranged from 8.6 to 13.7 cal/cm²/day.

2. AGROMETEOROLOGICAL ASSESSMENT

During the period under review, the country experienced sporadic rains leading to poor temporal and spatial distribution.

Over most areas maize crop is at cobbing to maturing stages especially for those who planted early and those who planted early maturing varieties as shown in figure 4 below. For the south some farmers have already started harvesting.



Figure 4: Maize at Maturing stage in Santhe Kasungu

Other crops such as soya beans, tobacco, are also reportedly doing well with soya beans generally at flowering to podding stages over most of soya bean growing districts and majority of tobacco farmers are harvesting in readiness for the 2024/2025 Tobacco marketing season as captured in figures 5 and 6 respectively.



Figure 5: Groundnuts field in Kasungu



Figure 6 Tobacco harvesting in Mchinji

For livestock, majority of livestock in the country were under alert Temperature Humidity Index as the country experienced generally warm to hot and fairly humid conditions. The sporadic rains experienced during the reporting period ensured improved and continued pasture growth and water availability to various stocks.

Overall, there are serious concerns of reduced crop production for subsistence and cash crops at both local and national scales due to the impacts of the prolonged dry conditions that have been experienced over northern half of the country, and also due to the erratic start of the 2024/2025 rainfall season.

3. PROSPECTS FOR 2024/2025 SEASON

The 2024-2025 rainfall season is being influenced by weak La Nina conditions that have been established over eastern-central equatorial Pacific Ocean. Global models project that these conditions are likely to persist for a considerable remaining part of the season.

The rainfall forecast for the sub-season January-February-March (JFM) of the 2024/2025 season is:

"During January to March 2025, expect normal to abovenormal total rainfall amounts over most areas with possibility of outright above normal rainfall in January 2025."





Figure 7: Forecast categories for JFM

During the month of March, there are higher chances of above normal cumulative rainfall amounts over central and southern parts of the country while generally normal to above normal over northern areas. (Figure 8 below map (1)). The actual anticipated rainfall amounts are generally in the range 100 to 250 mm with lakeshore areas and Mulanje receiving more than 250mm as shown in map (2) of Figure 8 below.



Figure 8: March 2025 rainfall forecast (a) categories and (b) amounts

In terms of temperature, March is anticipated to be hotter mainly over the north while mostly normal temperatures over most areas, and cooler than normal over parts of Mchinji and Nsanje districts as shown in map (1) in Figure 9 below. Lakeshore and Shire Valley are expected to register between 28°C to 36°C, as captured in map (2) in Figure 9 below.



Figure 9: March 2025 temperature forecast

4. OUTLOOK FOR 11 – 20 MARCH 2025

The Inter Tropical Convergence Zone (ITCZ) is expected to be active mainly over northern half of the country leading to above normal dekadal rainfall amounts, normal to above normal over southern areas and generally normal to below normal dekadal amounts over central areas during the second dekad of March 2025 as shown in Figure 10 below.

Farmers mainly over the north are strongly advised to practice good farming techniques such as moisture conservation as well as water harvesting. Livestock farmers, are encouraged to take proactive measures in ensuring their stock is guarded against worms, parasites as the seasonal conditions may provide suitable environment for breeding of the same.



Figure 10: Rainfall outlook for 11-20 March 2025