Government of Malawi
Ministry of Natural Resources and Climate Change

Malawi 10-day Weather and Agrometeorological Bulletin

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

Be wise be weather-wise
Department of Climate Change and Meteorological Services

Period: 11 – 20 March 2025 | Season: 2024/2025 | Issue No.17

Release date: 25 March 2025

HIGHLIGHTS

- **Dry conditions over central areas …**
- **Maize mostly at maturing stage, harvesting over the south…**
- **Reduction in rainfall activities is expected mainly over southern areas …**

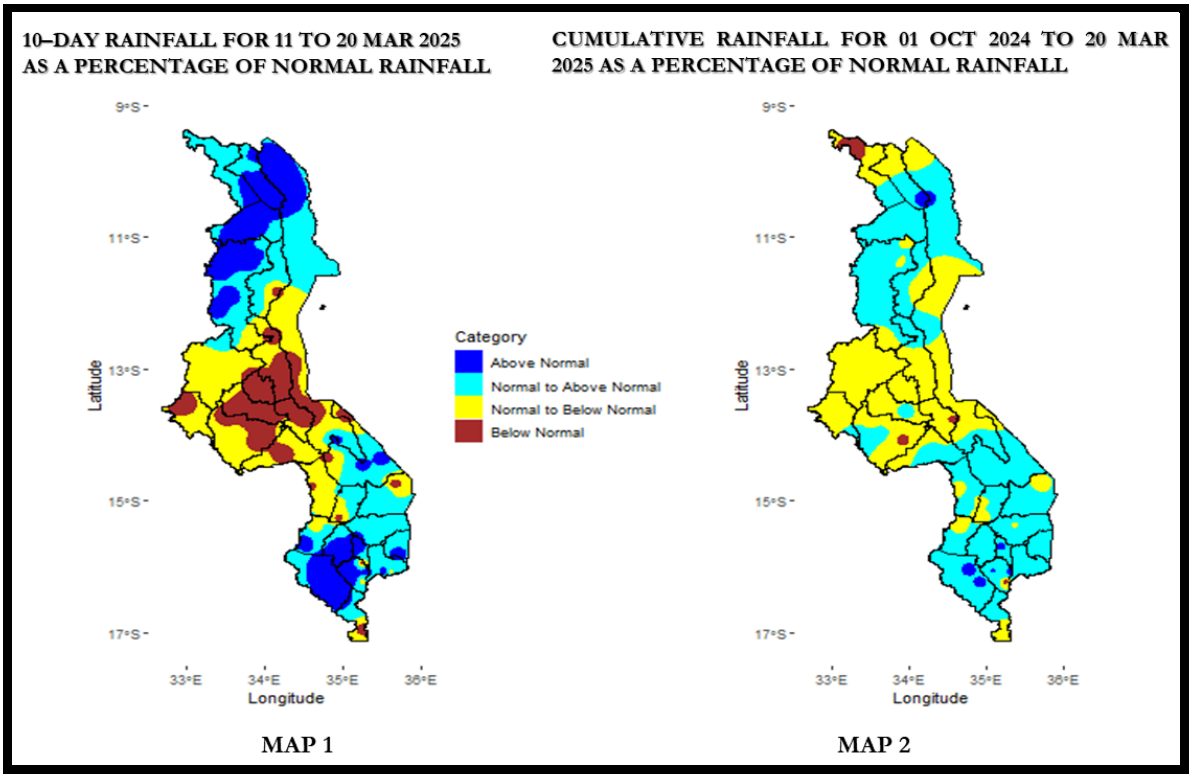

Figure 1: Observed dekadal and cumulative seasonal rainfall as percentage of normal for Malawi

1.0 WEATHER SUMMARY

Northern and southern areas of the country experienced localized heavy rains and thunderstorms due to the influence of Tropical cyclone JUDE and a broad equatorial trough, respectively. Central areas experienced dry weather conditions due to difluence resulting from Tropical Cyclone JUDE.

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1.1 RAINFALL SITUATION

During the reporting period, normal to above rainfall amounts were experienced over northern and southern areas while central areas reported generally normal to below normal range of historical dekadal amounts with extremely below normal conditions in parts of districts like Salima, Nkhotakota, Ntcheu and Lilongwe as captured in Map 1 in figure 1 above. Cumulatively, since the onset of rainfall monitoring season, rainfall amounts are now indicating normal to above normal conditions for the southern and northern areas of the country while normal to below normal for central areas and extreme northern districts of Karonga and Chitipa. (Map 2 from Figure 1).

Spatial distribution of the actual recorded rainfall as captured in figure 2shows that northern and southern areas received significant cumulative dekadal rainfall amounts and the notable ones are; Masambanjati Agriculture in Thyolo which recorded 261.2mm in 6 rainy days, Thyolo Boma recorded 182.7mm in 5 rainy days, Nchalo Sugar Estate in Chikwawa recorded 174.8mm in 5 rainy days, Mzimba Meteorological station recorded 172.8mm in 8 rainy days, Chiradzulu Agriculture recorded 166.1mm in 5 rainy days, Vinthukutu Agriculture in Karonga recorded 161.6mm in 5 rainy days, Fort Lister in Phalombe recorded 150.9mm in 4 rainy days, Zombwe Agriculture in Mzimba recorded 146.9mm in 7 rainy days, Lujeri Tea Estate in Mulanje recorded 146.2mm in 6 rainy days, Mpemba Veterinary in Blantyre recorded 144.7mm in 4 rainy days, Satemwa Tea Estate in Thyolo recorded 139.7mm in 6 rainy days, Chikwawa Boma recorded 138.5mm in 4 rainy days, Thyolo Agriculture recorded 125.7mm in 6 rainy days, Chichiri Meteorological station in Blantyre recorded 118.3mm in 6 rainy days, Kasinthula Research Station in Chikwawa recorded 117.3mm in 6 rainy days, Mulanje Boma recorded 116.6mm in 7 rainy days, Bvumbwe Meteorological station in Thyolo recorded 115.9mm in 7 rainy days.

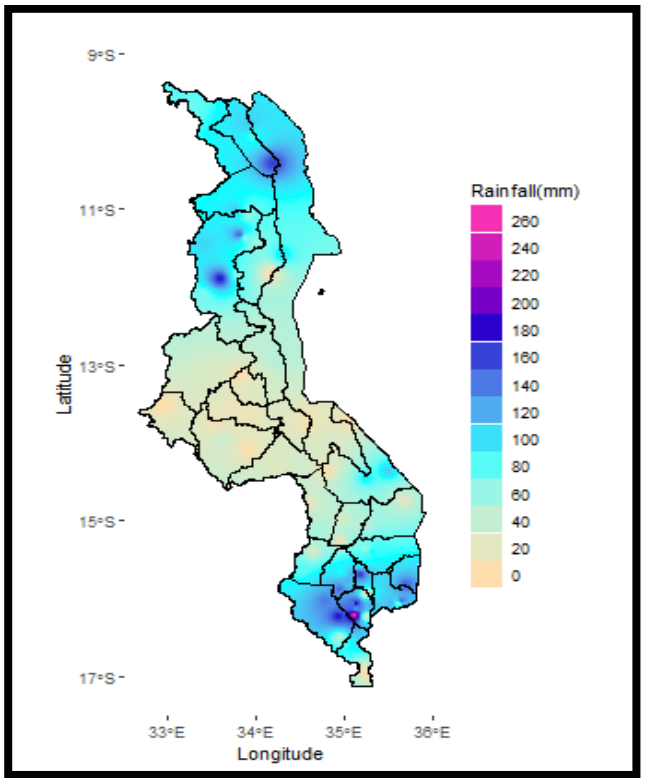

Figure 2: Observed dekadal rainfall for Malawi, 11-20 March 2025

The overall rainy days distribution from 11 to 20 March 2025 is shown in figure 3 below. Highest number of 8 rainy days was registered at Chikangawa forest, Mzimba and Nkhotakota Meteorological stations. Most stations had a range of 1 to 4 rainy days.

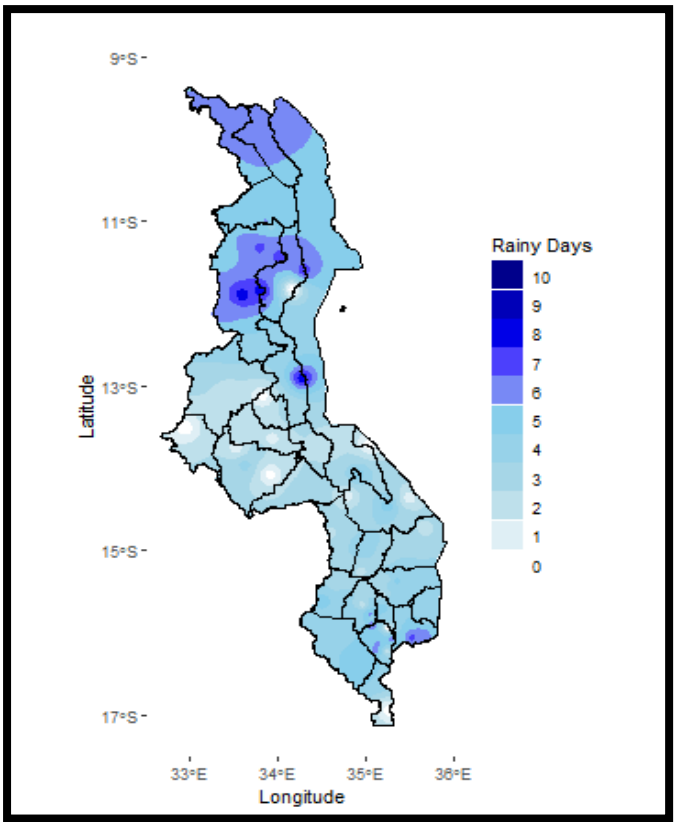

Figure 3: Dekadal rainy days for Malawi, 11-20 March 2025

1.2 AIR TEMPERATURE

Malawi experienced warm to hot temperatures during the period under review with the average maximum ranging from 22.6°C at Bvumbwe Meteorological station to 30.2°C at Ngabu Meteorological station in Chikwawa while for the minimum temperature the average ranged from 14.9°C at Dedza Meteorological station to 22.6°C at Ngabu Meteorological station.

1.3 RELATIVE HUMIDITY

Air over Malawi was moist during the past dekad and the daily average Relative Humidity values recorded from various weather stations across the country ranged from 70% at Nkhotakota Meteorological station to 87% at Bvumbwe Meteorological station.

1.4 WIND SPEEDS

Daily average wind speed measured at a height of two metres above the ground ranged from 1.4km per hour at Ntaja Meteorological station in Machinga to 10.8 km per hour at Chileka Meteorological station.

1.5 SUNSHINE HOURS

Generally medium to long hours of bright sunshine were observed over Malawi during the period 11 to 20 March 2025. The average daily values of sunshine hours had ranged from 6.5 hours per day

at Bvumbwe Meteorological station to 8.6 hours per day at Salima Meteorological station and consequently the amount of Solar Radiation had ranged from 8.6 to 13.6 cal/cm²/day.

2. AGROMETEOROLOGICAL ASSESSMENT

During the period under review, the country experienced localized heavy rains over southern and norther areas with drier conditions over central areas of the country.

Maize crop is generally at cobbing to maturity stages over majority of northern half of the country with drying maize crop over southern half. Some farmers over southern areas are reportedly harvesting (figure 4). The drier conditions experienced over central areas has affected cobbing to maturity of the maize crop mainly over parts of Lilongwe, Kasungu and Salima Agricultural Development Divisions as depicted in figure 5 below. Most areas from Karonga and Mzuzu ADDs are now receiving more rains which is suitable for crops like rice.

Figure 4: Maize at Maturing stage at Chimwaza in Dowa

Figure 5 The maize field affected by dry spell in Ntchisi

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.

For livestock, majority of livestock over central areas of the country were under alert Temperature Humidity Index as the country experienced generally warm to hot and fairly humid conditions. The sporadic rains experienced over southern and northern areasduring 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 erratic start of the 2024/2025 rainfall season as well as due to the impacts of the prolonged dry conditions that have been experienced over northern half of the country.

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 above-normal total rainfall amounts over most areas with possibility of outright above normal rainfall in January 2025."

Illustration of the forecast is given in Figure 7 below.

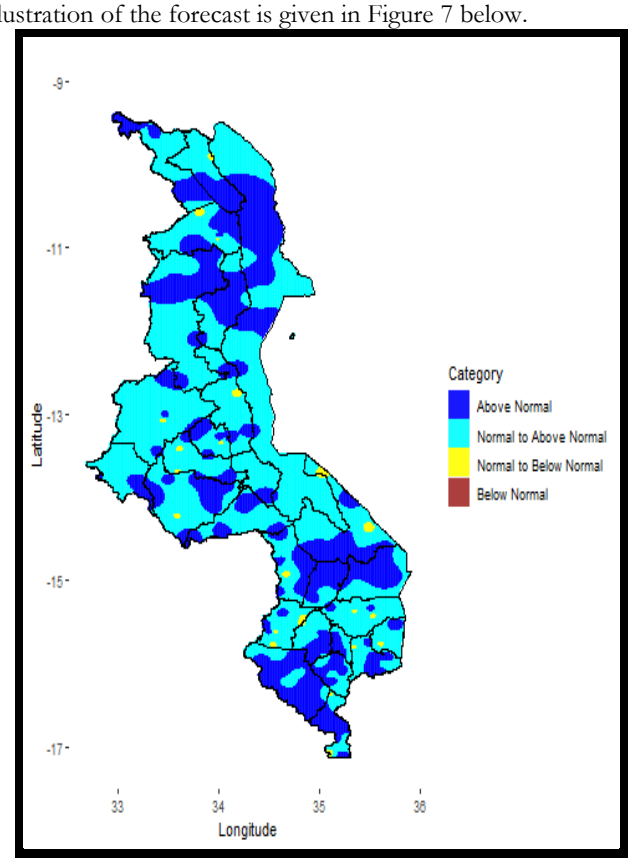

Figure 6: Forecast categories for JFM

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 7 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 7 below.

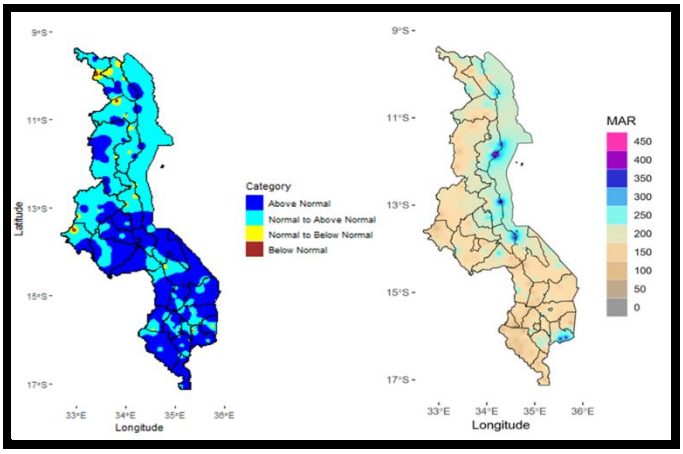

Figure 7: March 2025 rainfall forecast (a) categories and (b) amounts

For 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 8 below. Lakeshore and Shire Valley are expected to register between 28°C to 36°C, as captured in map (2) in Figure 8 below.

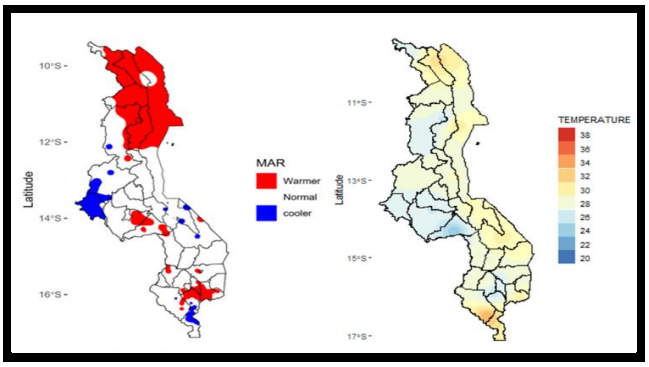

Figure 8: March 2025 temperature forecast

4. OUTLOOK FOR 21 – 31 MARCH 2025

Normal to above normal dekadal rainfall amounts are expected over more areas from Northern and central regions while for the south it will be generally normal to below normal during the third dekad of March 2025 as shown in Figure 9 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.

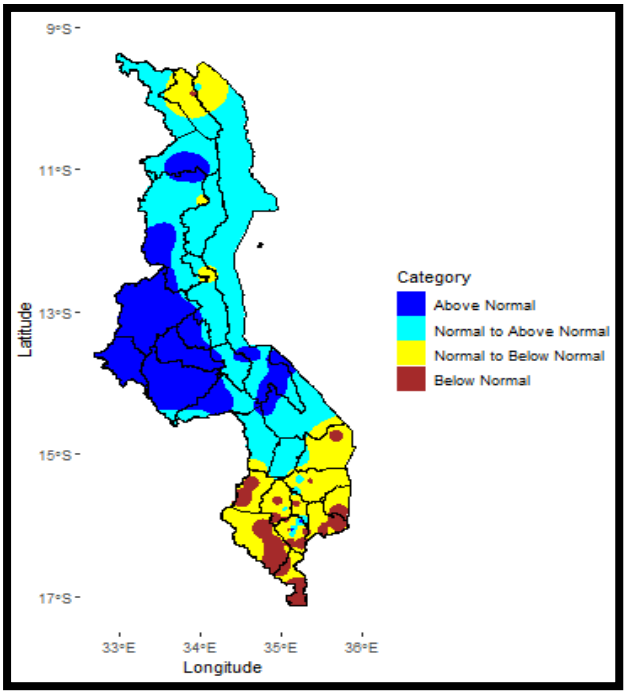

Figure 9: Rainfall outlook for 21-31 March 2025