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: 21 – 28 February 2025 | Season: 2024/2025 | Issue No.15

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HIGHLIGHTS

- **Dry conditions mainly over the north…**
- **Maize at tasseling to cobbing stages, some maturing especially over the south…**
- **Improved rainfall conditions expected mainly over the north during the first dekad of March 2025…**

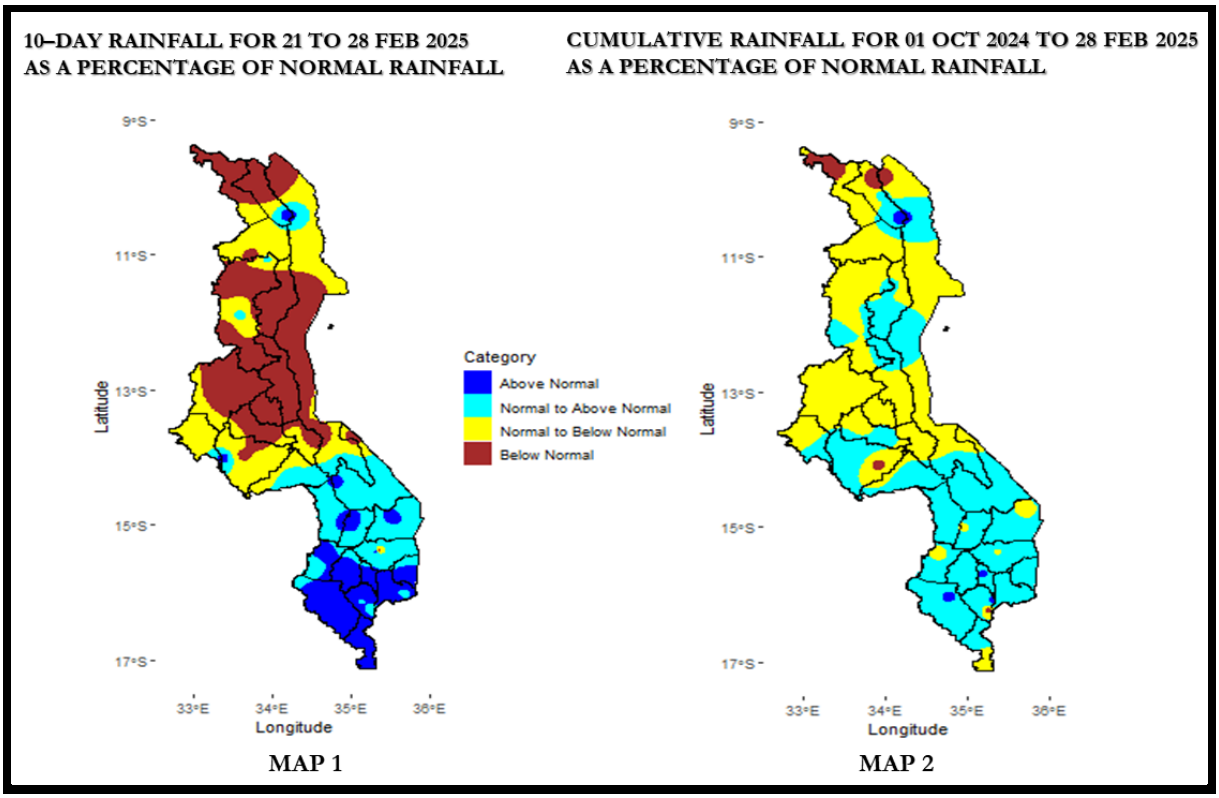

Figure 1: Observed dekadal and cumulative seasonal rainfall as percentage of normal for Malawi

1.0 WEATHER SUMMARY

The Inter-Tropical Convergence Zone (ITCZ) was dominant mainly over the southern part of the country during the period under review resulting in scattered thunderstorms and locally heavy rains mainly over the south. Dry conditions persisted over northern areas.

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1.1 RAINFALL SITUATION

Most areas over the southern and some parts of central areas continued to experience normal to above normal range of historical dekadal rainfall amounts while the northern and parts of the central areas of the country experienced normal to below normal rainfall amounts (Map1 from figure 1). Generally, the cumulative rainfall amounts since the start of the rainfall monitoring season indicates normal to above normal conditions for the southern half of the country while normal to below normal for most of northern and central areas as of 28th February 2025 (Map 2 from figure 1).

Figure 2 below shows the rainfall amounts distribution across the country during the last dekad of February 2025. The total rainfall amounts exceeding 100mm were observed from the following stations; Toleza Farm in Balaka recorded 171mm in 6 rainy days, Nchalo in Chikwawa recorded 158.8mm in 8 rainy days, Ntaja Meteorological station in Machinga recorded 143.1mm in 5 rainy days, Satemwa Tea Est. No.1 in Thyolo recorded 140.2mm in 6 rainy days, Thyolo Boma recorded 128.7mm in 5 rainy days, Zomba Agriculture recorded 123.8mm in 4 rainy days, Chiradzulu Agriculture recorded 122.7mm in 8 rainy days, Chikwawa Boma recorded 121.1mm in 6 rainy days, Bvumbwe Meteorological station in Thyolo recorded 121mm in 5 rainy days, Thyolo Boma recorded 118.9mm in 6 rainy days, Balaka Agriculture recorded 117.7mm in 5 rainy days, Masambanjati Agriculture in Thyolo recorded 113.5mm in 6 rainy days, Kasinthula Research Station in Chikwawa recorded 109.2mm in 4 rainy days and Fort Lister in Phalombe recorded 107.7mm in 7 rainy days.

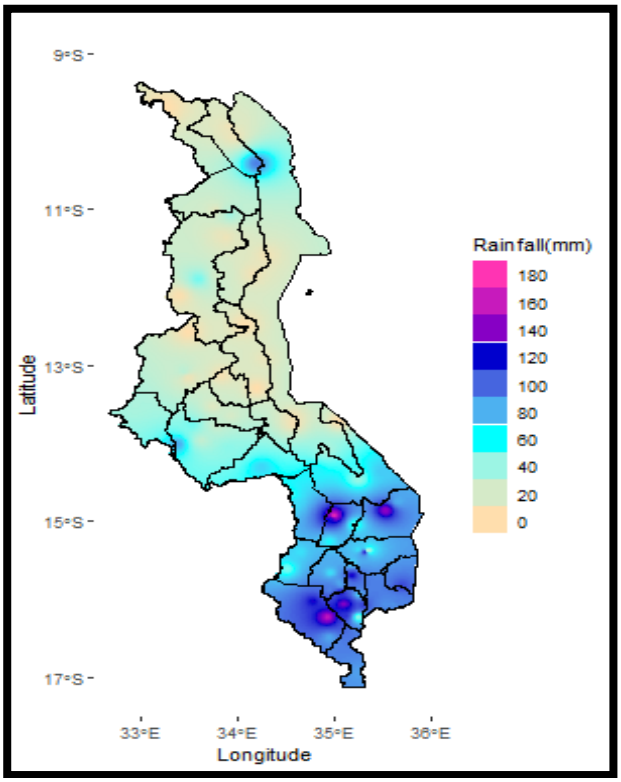

Figure 2: Observed dekadal rainfall for Malawi, 21-28 February 2025

During the last dekad of February 2025, the average number of rainy days was 5 mainly for stations from the southern half of the country.. Figure 3 below shows the distribution of rainy days observed as Chiradzulu agriculture and Nchalo Sucoma station registered a maximum of 8 rainy days.

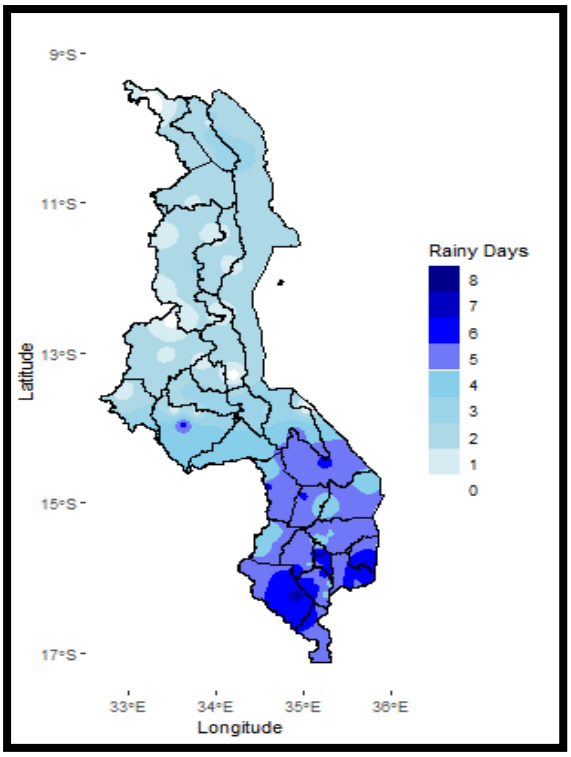

Figure 3: Dekadal rainy days for Malawi, 21-28 February 2025

1.2 AIR TEMPERATURE

During the last dekad of February 2025, warm to hot temperatures were observed with the average maximum ranging from 24.9°C at Bvumbwe Meteorological station to 32.5°C at Ngabu Meteorological station in Chikwawa while for the minimum temperature the average ranged from 16.9°C at Mzimba Meteorological station to 23.7°C at MonkeyBay Meteorological station in Mangoch.

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 67% at Bolero, in Rumphi and Mzimba Meteorological stations to 87% at Mangochi and Bvumbwe Meteorological stations.

1.4 WIND SPEEDS

Winds over Malawi were generally light to moderate, daily average wind speed measured at a height of two metres above the ground ranged from 1.1km per hour at Ntaja Meteorological station to 8.3 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 21 to 28 February 2025. The daily values of sunshine hours had ranged from 6.3 hours per day at Bvumbwe Meteorological station to 8.1 hours per day at Salima Meteorological station and consequently the amount of Solar Radiation had ranged from 8.3 to 13.6 cal/cm^2/day.

2. AGROMETEOROLOGICAL ASSESSMENT

During the period under review, there was continued good temporal and spatial distribution of rainfall particularly over southern areas of the country.

Maize crop stand is encouraging mainly over central areas where fertilizer or manure was applied as well as good agricultural practices as stipulated by the Ministry of Agriculture, are being adhered to as captured in figure 4 below.

Figure 4: Good Maize stand in Kasungu, central Malawi

Maize crop is generally at tasseling to cobbing stages over majority of northern half of the country with maturing maize crop over southern half for early planted crop that survived the prolonged dry spells that were experienced during the aerly parts of the season in the region. Moreover, some farmers over southern areas are reportedly harvesting for those that planted early maturity varieties and their crop survived the prolonged dry spells as in captured in figure 5 below.

Figure 5: Newly harvested maize, Neno, southern Malawi

Other crops such as groundnuts, 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.

However, due to persistent hot and dry weather conditions particularly over northern half of the country experienced for past month many crops including the staple crop maize and rice have showed various degrees of water stress conditions. This is depicted in figure 5 below.

Figure 6:Water stressed rice field in Karonga due to dry spells that have affected some parts of northern areas

For livestock, majority of livestock in the country were under normal Temperature Humidity Index as the country experienced generally warm to hot and fairly humid conditions for southern half of the country with alert category for northern half of the country. The rains over southern half of the country ensured improved and continued pasture growth and water availability to various stock.

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.

For proper utilization of rain water, farmers should adhere to principles of good agricultural practices including moisture conservation, timely control of weeds, pests and diseases; and fertilizer/ manure application. Water harvesting technologies should also be practiced for future use during periods of suppressed rainfall.

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 6 below.

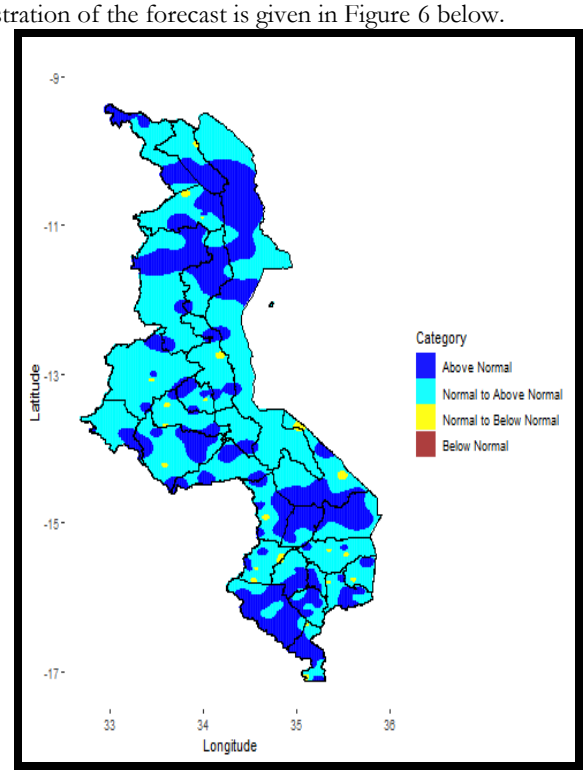

Figure 7: Forecast categories for JFM

During the month of March, there are higher chances of above normal cumulative seasonal 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.

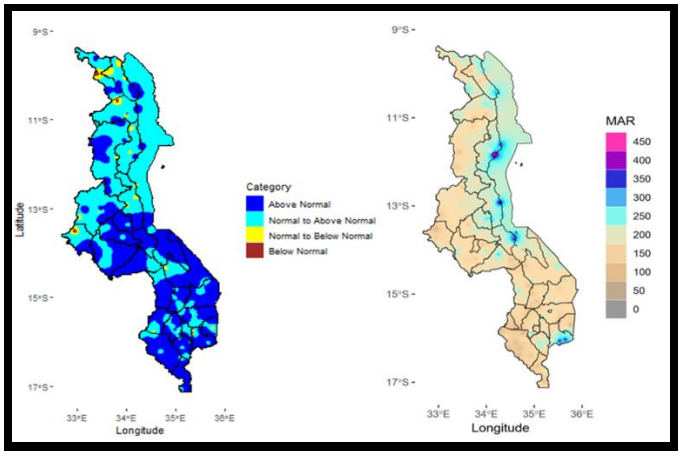

Figure 8: March 2025 rainfall forecast (a) categories and (b) amounts

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

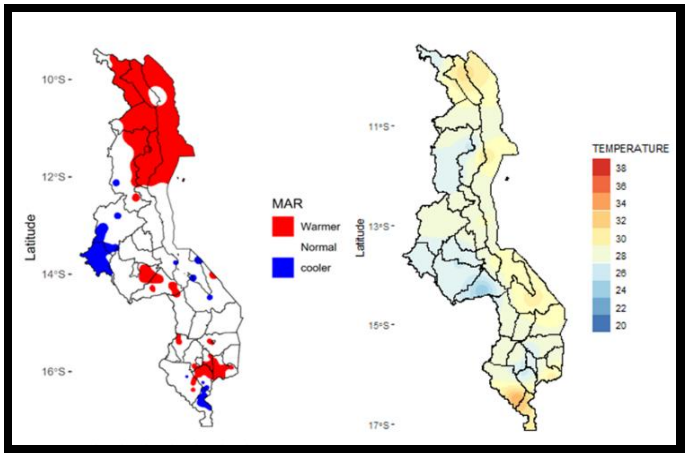

Figure 9: March 2025 temperature forecast

4. OUTLOOK FOR 01 – 10 MARCH 2025

Asignificant pick in rainfall activities is expected over northern half of the country during the first dekad of March. The anticipated rainfall amounts are within normal to above normal of historical dekadal amounts for the northern half and generally nromal to below normal in majority of southern areas as shown in Figure 10 below. This is due to the influence of the Inter Tropical Convergence Zone (ITCZ) which will be oscillating over the north.

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.

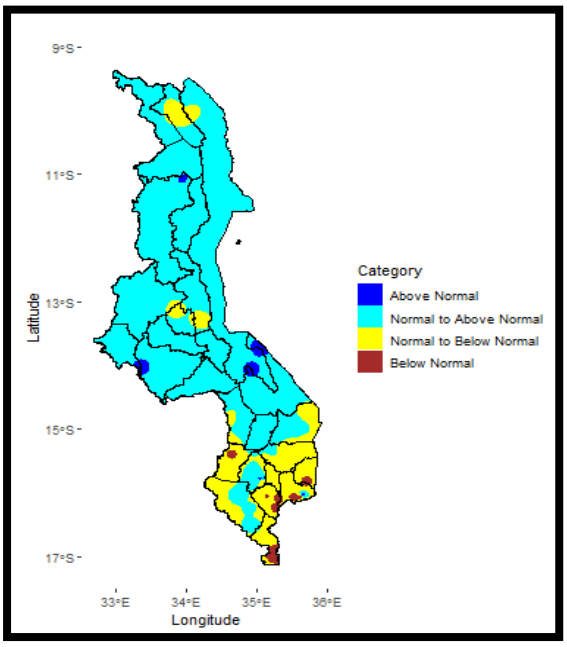

Figure 10: Rainfall outlook for 01-10 March 2025