



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: 01 – 10 October 2024

Season: 2024/2025

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HIGHLIGHTS

- Sporadic rainfall activities over north and south, hot and dry conditions over central areas...
- Land preparation in progress over most parts of the country...
- Rainfall activities anticipated during the second dekad of October 2024...

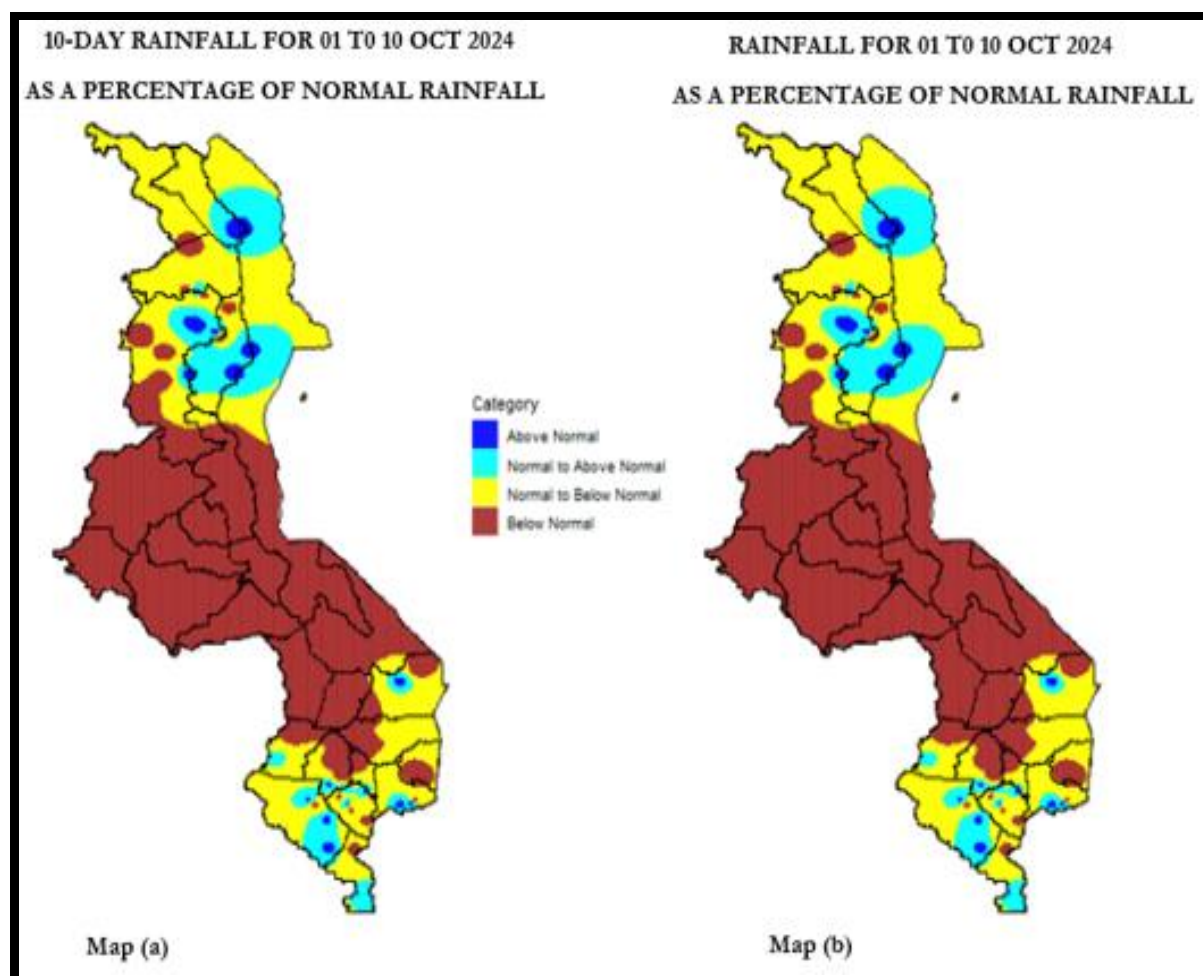


Figure 1: Observed dekad and cumulative seasonal rainfall as percentage of normal for Malawi

1.0 WEATHER SUMMARY

During the period 01 to 10 October 2024, warm easterly airmass resulted in generally hot and dry conditions over most areas while an influx of cool and moist south easterly airmass resulted in sporadic rainfall activities over southern and northern areas of the country.

1.1 RAINFALL SITUATION

During the first dekad of October 2024, generally hot and dry conditions prevailed over the country with sporadic rainfall activities over southern and northern areas of the country which were heavy at times.

Stations that recorded some rainfall during the reporting period included Mulanje Boma which recorded 164.6mm in 4 rainy days, Mimosa Meteorological station in Mulanje recorded 149.0mm in 5 rainy days, Mzuzu Meteorological station in Mzimba recorded 76.4 in 3 rainy days, Satemwa Tea estate in Thyolo district recorded 59.6mm in 4 rainy days, Vinthukutu Agriculture in Karonga recorded 42.5mm in 1 rainy day, Zombwe Agriculture in Mzimba recorded 41.6mm in 1 rainy day, Nkhata Bay Meteorological station recorded 35.1mm in 3 rainy days, Thuchila Agriculture in Mulanje recorded 30.5mm in 3 rainy days, Ekwendeni Agriculture in Mzimba recorded 30.2mm in 2 rainy days, Nchalo in Chikwawa recorded 26.0mm in 3 rainy days and Bvumbwe Meteorological station in Thyolo recorded 22.2mm in 4 rainy days.

Spatial distribution of the actual recorded rainfall amounts is shown in figure 2 below.

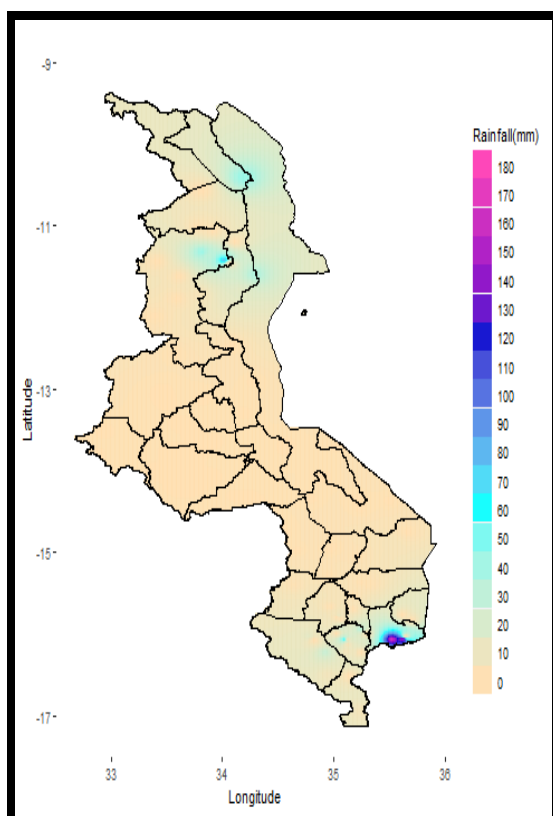


Figure 2: Observed dekadal rainfall for Malawi, 01-10 October 2024

The overall rainy days distribution from 01 to 10 October 2024 is shown in figure 3 below. Majority of central areas did not record any rainfall while some areas over northern and southern areas experienced some rains. The highest number of 5 rainy days was observed at Mimosa Meteorological station followed by 4 rainy days at Mulanje Boma, Satemwa Tea estate and Bvumbwe Meteorological station. More details in figure 3 below.

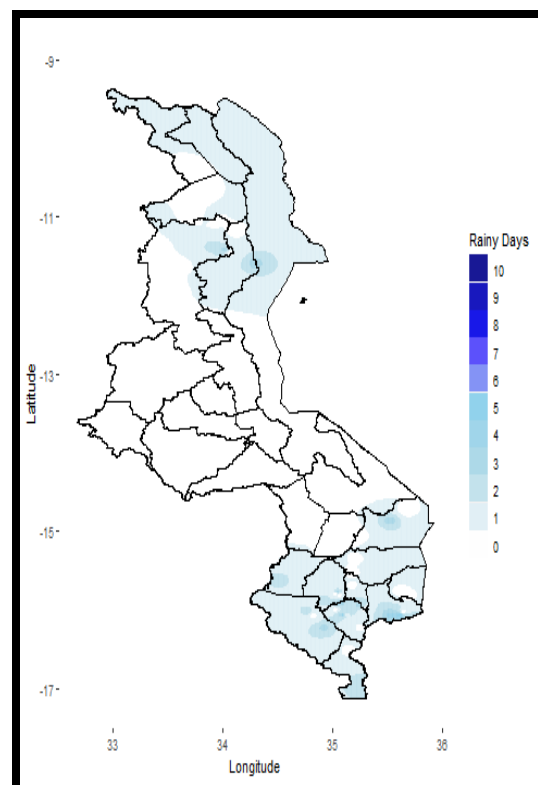


Figure 3: dekadal rainy days for Malawi, 01-10 October 2024

1.2 AIR TEMPERATURE

Malawi experienced hot to locally very hot conditions during the period 01 to 10 October 2024. Daily average maximum temperatures had ranged from 22.1 °C at Bvumbwe Meteorological station to 31.5°C at Karonga Meteorological station, while highest absolute maximum temperature of 41.1°C was recorded on 1st October 2024 at Ngabu Meteorological station in Chikwawa. Daily average minimum temperatures had ranged from 10.3°C at Bvumbwe Meteorological station to 21.6°C at Monkey Bay Meteorological station in Mangochi.

1.3 RELATIVE HUMIDITY

During the period 01 to 10 October 2024, air over Malawi was generally dry. Daily average Relative Humidity values recorded from various weather stations had ranged from 41% at Monkey Bay Meteorological station to 72% at Mimosa Meteorological station.

1.4 WIND SPEEDS

During the period under review, most parts of Malawi experienced light to moderate wind speeds. Daily average wind speeds measured at a height of two metres above the ground level across the country had ranged from 3.9 km per hour at Karonga Meteorological station to 15.5 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 October 2024. Daily average values had ranged from 6.8 hours at Bvumbwe to 9.2 hours at Karonga Meteorological station and consequently the amount of Solar Radiation had ranged from 8.3 to 11.5 cal/cm²/day.

2. AGROMETEOROLOGICAL ASSESSMENT

During the period under review, the main on-farm activity over Malawi has been land preparation in readiness for effective planting rains (refer to figure 4 below). Majority of tobacco growing farmers are busy with works on their tobacco seed nursery bed in readiness for effective planting rains as captured in figure 5 below.



Figure 4: A properly tilled field in Kunthembwe Extension Planning Area, Chileka, Blantyre



Figure 5: A tobacco seed nursery bed in Chinumba Extension Planning Area, Lilongwe East

3. PROSPECTS FOR 2024/2025 SEASON

The 2024-2025 rainfall season is expected to be 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 part of the season.

The rainfall forecast for the 2024/2025 season is that:

“During October to December 2024, Rainfall amounts across most areas of the country are anticipated to be normal to below-normal, except for specific areas in central and northern Lakeshore districts, where they may experience normal to above-normal precipitation.

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. ”

Illustration of the forecast is given in figure 6 below with map (a) and map (b) showing sub-seasons October November December (OND) and January February March (JFM), respectively.

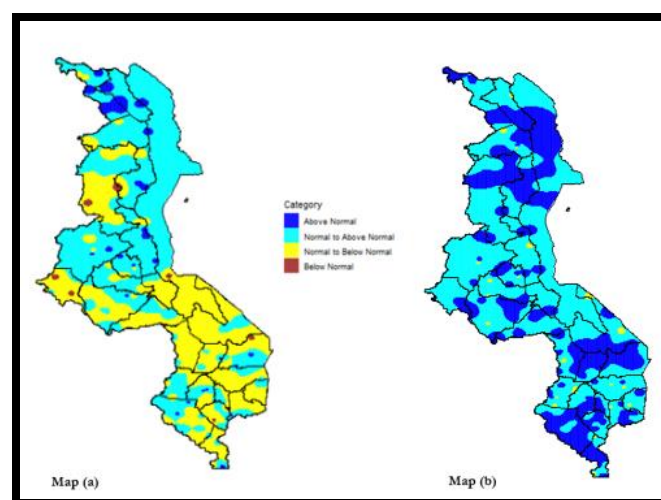


Figure 6: Forecast categories for OND and JFM

At national level, there are higher chances of normal to above normal cumulative rain fall amounts over most parts of the country.

For the month of October 2024, normal to above normal rainfall amounts are anticipated over majority of areas over northern half of the country with episodes of normal to below normal over central and southern areas. Refer to figure 7 below map (a).

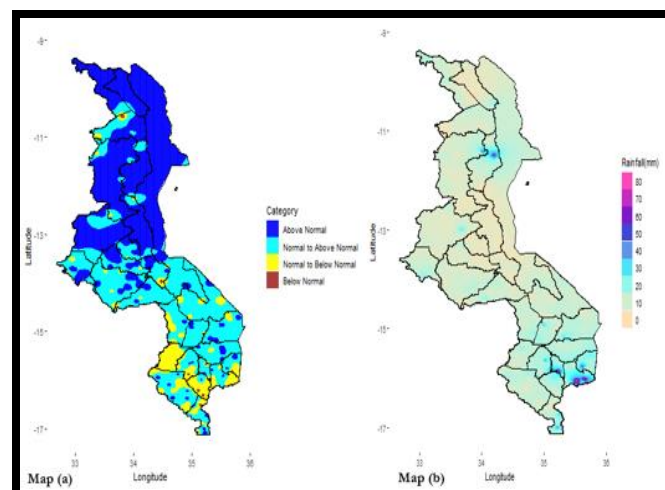


Figure 7: October 2024 rainfall forecast (a) categories and (b) values

Despite above normal amounts being anticipated over northern half, the anticipated amounts are ranging from 20mm to 80mm as shown in map (b) in figure 7 above.

In terms of temperature, generally warmer than normal conditions are anticipated during this month of October over most areas of the country as shown in map (a) in figure 8 below. This generally entails temperatures of more than 34 Degree Celsius for lakeshore and lower Shire River Valley areas while temperatures of over 30 Degree Celsius elsewhere as captured in map (b) in figure 8 below.

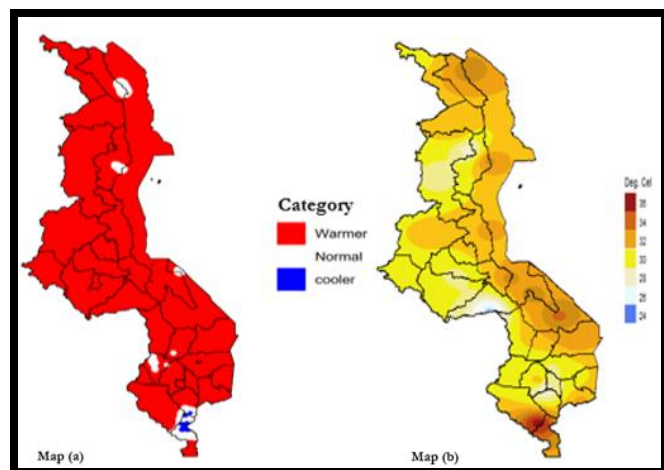


Figure 8: October 2024 temperature forecast

4. OUTLOOK FOR 11-20 OCTOBER 2024

Rainfall activities are anticipated during the period 11-20 October 2024. Dekadal rainfall amounts are expected to be within the normal to below normal category of the historical dekadal amounts. Hot to locally very hot temperatures are

anticipated during this period. This is represented by the map in Figure 9.

These conditions provide opportunity for farmers to continue with their land preparation initiatives as well as input buying. Livestock farmers are advised to provide water to their stock at regular times to avoid stress to their stock.

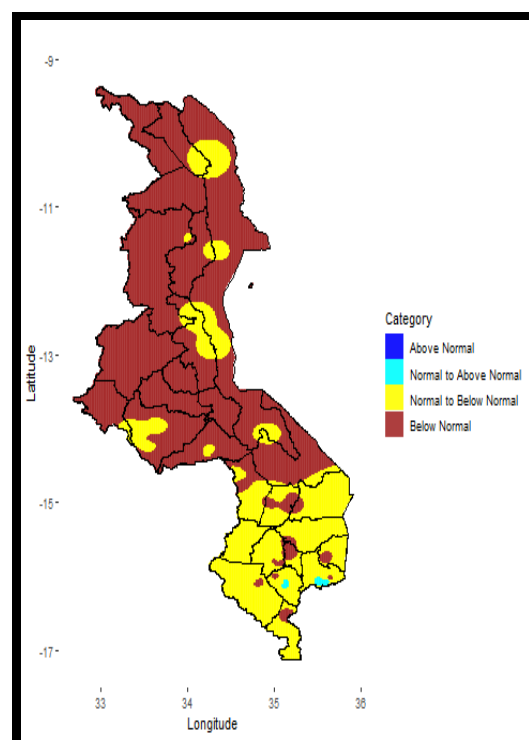


Figure 9: Dekadal rainfall outlook for Malawi for 11-20 October 2024