

# 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 November 2023

Season: 2023/2024

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## HIGHLIGHTS

- Wet conditions over southern and central Malawi, dry over northern Malawi...
- Land preparation, input acquisition in progress over central and north, planting over south...
- Relatively wet conditions anticipated during the second dekad of November 2023...

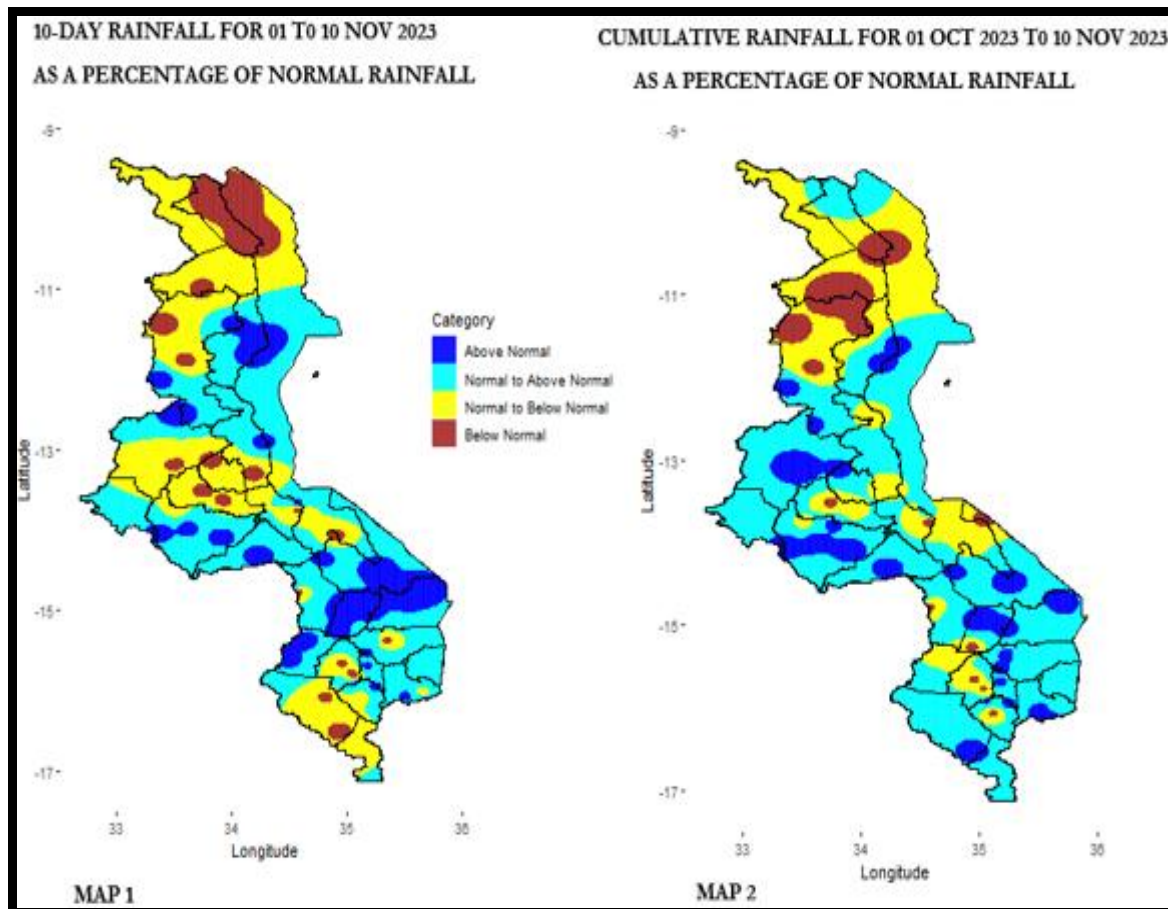


Figure 1: Observed dekadal and cumulative seasonal rainfall as percentage of normal for Malawi

## 1.0 WEATHER SUMMARY

During the period 01 to 10 November 2023, influx of cool and moist southeasterly airmass resulted in fairly scattered rainfall activities over southern and central areas of the country.

## 1.1 RAINFALL SITUATION

During the first dekad of November 2023, scattered rainfall activities were experienced over Malawi. The recorded rainfall amounts were generally within the normal to above normal of historical dekad amounts over some areas in all the three regions of the country. However, majority of northern areas experienced normal to below normal dekad rainfall amounts as shown in Map 1 from figure 1.

Some stations that recorded at least 50mm of rainfall during this dekad included Chintheche Agriculture in Nkhata Bay which recorded 104.8mm in 2 rainy days, Namitete in Lilongwe recorded 97.0mm in 3 rainy days, Chitedze Meteorological station in Lilongwe recorded 71.6mm in 2 rainy days, Mulanje Boma recorded 58.9mm in 4 rainy days, Mwanza Boma recorded 56.9mm in 4 rainy days as well, Thuchila Agriculture in Mulanje recorded 56.0mm in 1 rainy day, Chiradzulu Agriculture recorded 50.5mm in 3 rainy days and Mangochi Meteorological station recorded 50.3mm in 2 rainy days.

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

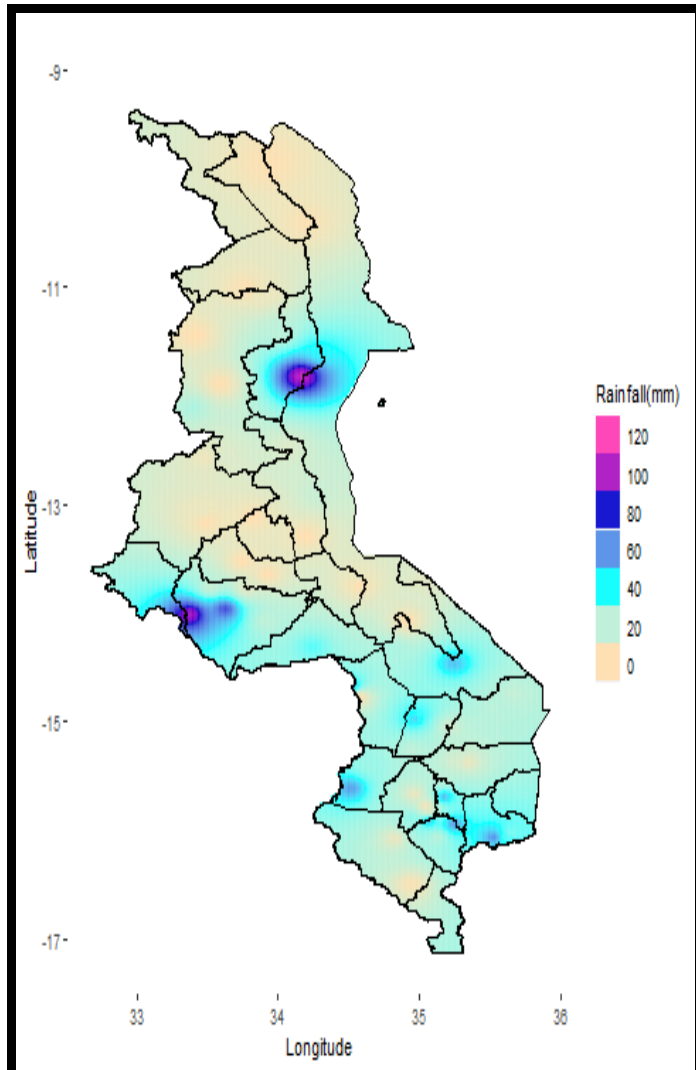


Figure 2: Observed dekad rainfall for Malawi, 01-10 November 2023

The overall rainy days distribution from 01 to 10 November 2023 is shown in figure 3 below. The highest number of 4 rainy days was registered at Mimosa Meteorological station in

Mulanje, Mulanje Boma, Mwanza Boma, Bvumbwe Meteorological station, Lujeri Tea estate and Dwangwa in Nkhatakota.

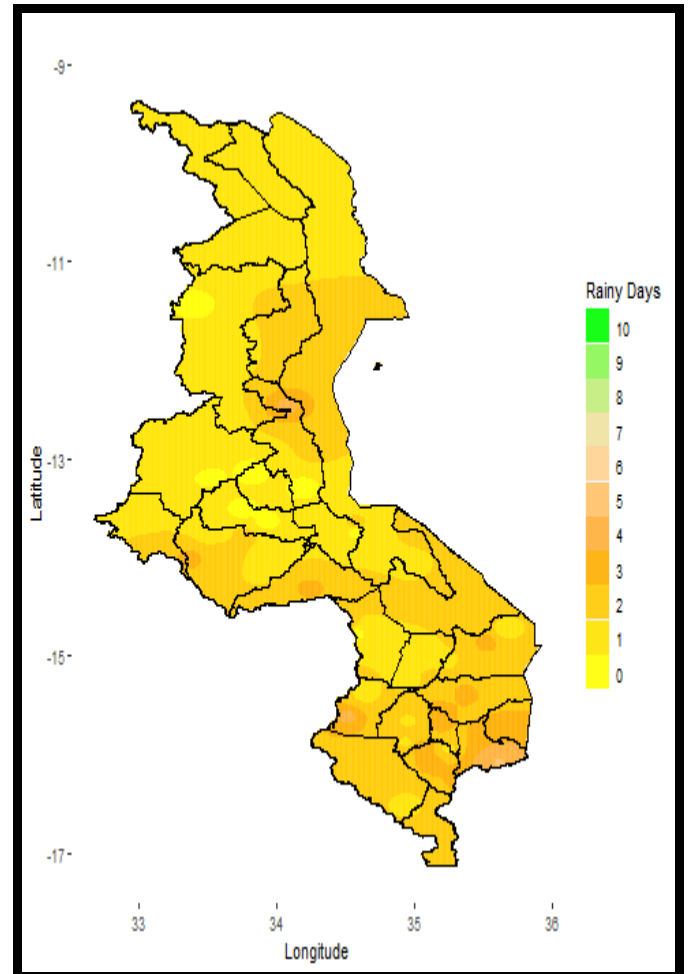


Figure 3: dekad rainy days for Malawi, 01-10 November 2023

Cumulatively, since the start of seasonal monitoring on 01 October 2023 to 10 November 2023, normal to above normal rainfall amounts have been experienced over majority of southern and central areas of the country with normal to below normal rainfall amounts over northern areas as shown in Map 2 in figure 1 above.

## 1.2 AIR TEMPERATURE

Malawi experienced hot to locally very hot conditions during the period 01 to 10 November 2023. Mean daily maximum temperatures had ranged from 25.5°C at Bvumbwe Meteorological station to 34.4°C at Karonga Meteorological station. Mean daily minimum temperatures had ranged from 15.8°C at Chitedze Meteorological station in Lilongwe to 24.8°C at Monkey Bay Meteorological station in Mangochi.

## 1.3 RELATIVE HUMIDITY

During the period under review, air over Malawi was relatively moist. Daily average Relative Humidity values recorded from various weather stations had ranged from 44% at Bolero Meteorological station in Rumphi to 75% at Bvumbwe Meteorological station in Thyolo.

**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 1.3 km per hour at Chitedze Meteorological station in Lilongwe to 13.6 km per hour at Chileka International Airport in Blantyre.

**1.5 SUNSHINE HOURS**

Generally medium to long hours of bright sunshine were observed over Malawi during the period 01 to 10 November 2023. The daily values had ranged from 6.2 hours per day at Bvumbwe to 8.8 hours per day at Karonga Meteorological station and consequently the amount of Solar Radiation had ranged from 8.2 to 10.3 cal/cm<sup>2</sup>/day.

**2. AGROMETEOROLOGICAL ASSESSMENT**

During the period under review, the main on-farm activities over Malawi have been land preparation in readiness for effective planting rains, and planting particularly over southern Malawi as shown in figure 5 below.

However, some farmers that planted during the last dekad of October 2023 particularly over southern Malawi are reported to have their crop germinated (Figure 4).



Figure 4: Germinated maize crop in Mombezi Extension Planning Area, Chiradzulu, southern Malawi.



Figure 5: Planting in progress, Chipande Extension Planning Area, Kachere, Blantyre

Farmers are also reportedly acquiring various farm inputs in major outlets across the country. Stocking and accessing of various farm inputs is underway across the country under the Affordable Inputs Program (AIP), an initiative by the Malawi Government.



Figure 6: Goat grazing, Chipande Extension Planning Area, Kachere, Blantyre

The continued rainfall episodes over southern and central lakeshore areas have also supported emergence of pasture as well as boosting availability of water for livestock. This has given livestock farmers a variety of grazing options as captured in figure 6 above.

**3. PROSPECTS FOR 2023/2024 SEASON**

The 2023-2024 rainfall season is expected to be influenced by moderate to strong El Niño conditions that have been



established over eastern-central equatorial Pacific Ocean. Global models project that these conditions are likely to persist throughout the season.

The rainfall forecast for the 2023/2024 season is that:

**“During October to December 2023, expect normal total rainfall amounts over most areas of the country. However, there is a high likelihood of below-normal rainfall in November, particularly in southern and northern Malawi. There is possibility of delayed onset by at least two weeks in some areas.**

**During January to March 2024, expect normal to below-normal total rainfall amounts over most areas with possibility of above normal rainfall in January. The chance of prolonged dry spells is high during the month of February.”**

There are higher chances of normal cumulative rainfall amounts over most parts of the country.

For the month of November 2023, normal to below normal rainfall amounts are anticipated over majority of areas with episodes of normal to above normal particularly over central areas. Refer to figure 7 below.

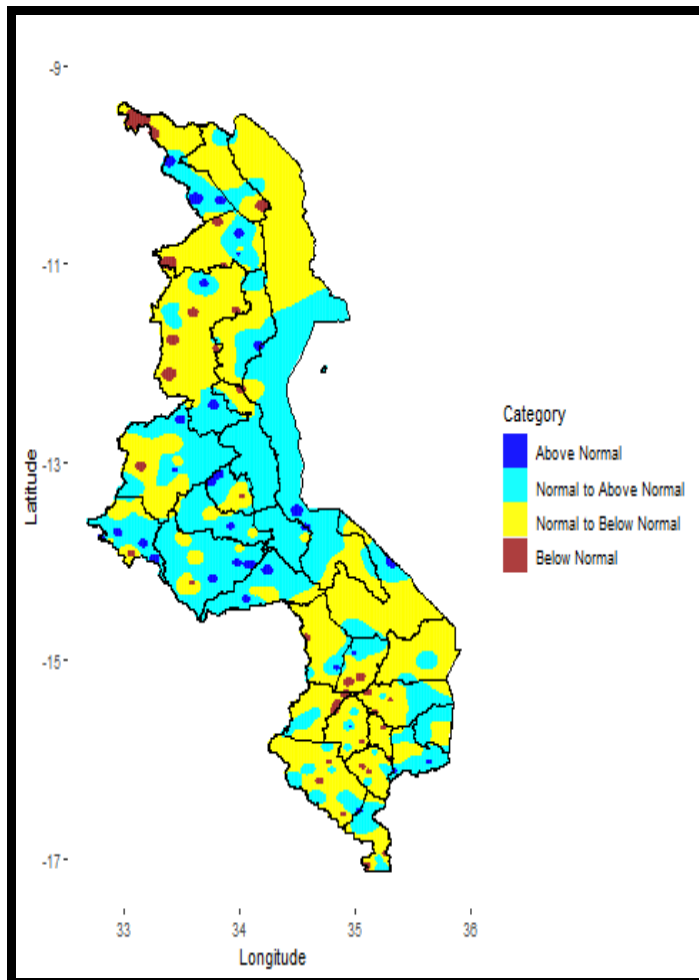


Figure 7: November 2023 rainfall forecast

In terms of temperature, generally normal conditions are anticipated during this month of November over most areas of the country with warmer than normal conditions over parts

of Nsanje and some Shire Highlands districts, as well as Chitipa-Rumphi area, as shown in figure 8 below.

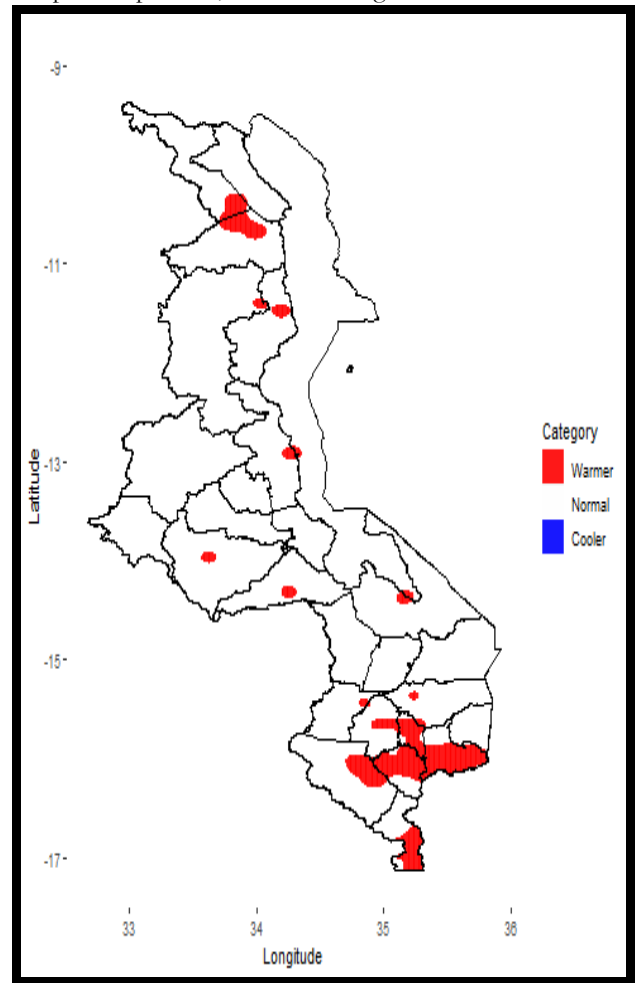


Figure 8: November 2023 temperature forecast

**4. OUTLOOK FOR 11-20 NOVEMBER 2023**

During the period 11 - 20 November 2023, generally normal to above normal rainfall amounts are anticipated over majority of central and southern areas of the country with normal to below normal conditions anticipated over northern areas. This is represented by the map in Figure 9.

Farmers are advised to continue with their land preparation activities as they wait for effective planting rains for northern and some central areas while southern region farmers are advised to take advantage of the effective rainfall being experienced. For fish farmers, they are advised to continuously monitor their pond levels particularly over northern areas as the anticipated normal to below normal rainfall amounts may provide suitable conditions for enhanced evaporation from pond surfaces.

Livestock farmers, are encouraged to provide water at regular intervals to their stock and where applicable graze under shade to avoid dehydration.

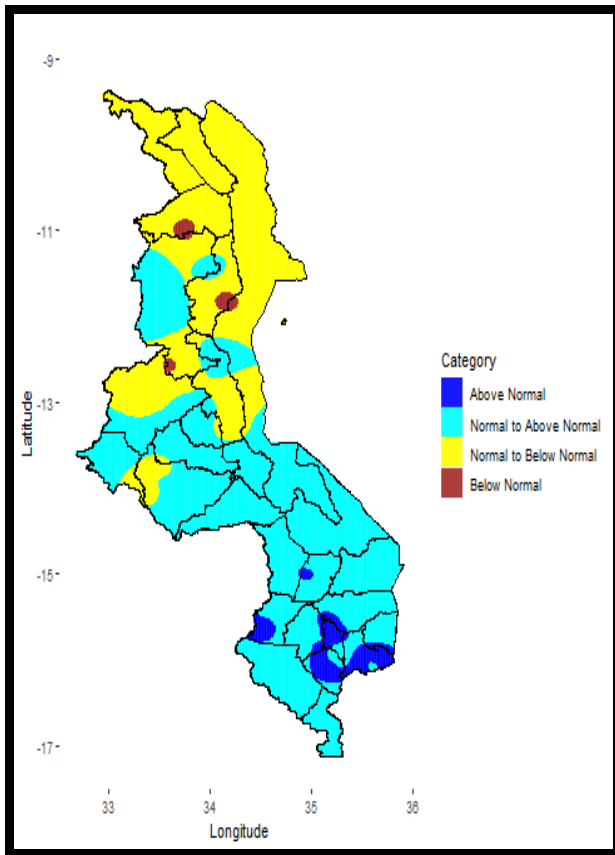


Figure 9: Dekadal rainfall outlook for Malawi for 11-20 November 2023 as percentage of normal rainfall