

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 November 2023

Season: 2023/2024

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HIGHLIGHTS

- Relatively wet conditions over southern and central lakeshore areas, dry elsewhere...
- Land preparation, input acquisition in progress over central and north, some weeding over south...
- Relatively dry conditions anticipated during the last dekad of November 2023...

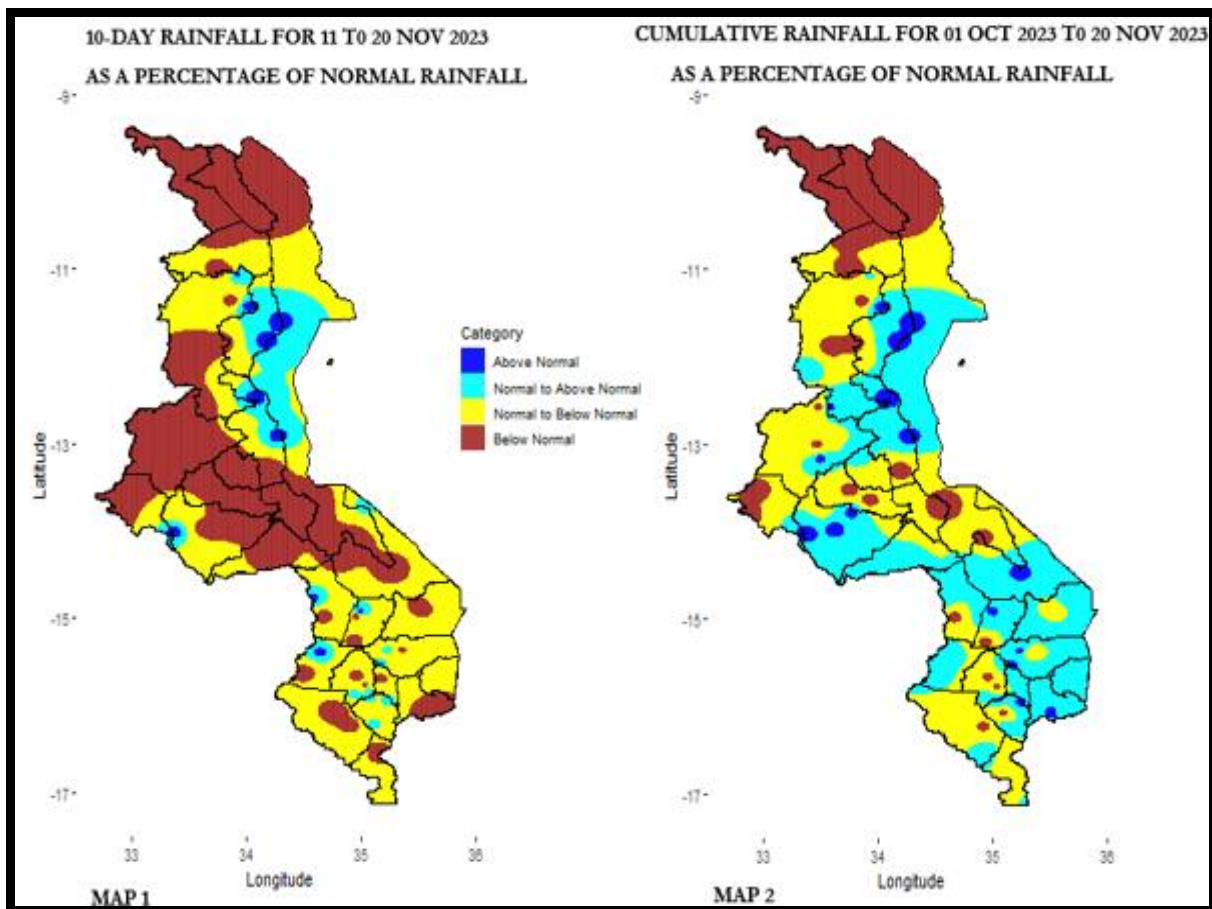


Figure 1: Observed dekadal and cumulative seasonal rainfall as percentage of normal for Malawi

1.0 WEATHER SUMMARY

During the period 11 to 20 November 2023, warm and unstable easterly airmass influenced weather over Malawi resulting in fairly scattered rainfall activities over southern and lakeshore areas of the country.

1.1 RAINFALL SITUATION

During the second dekad of November 2023, scattered rainfall activities were experienced over southern and lakeshore areas of Malawi. The recorded rainfall amounts were generally within the normal to below normal of historical dekad amounts over majority of southern areas of the country with normal to above normal dekad amounts over parts of lakeshore districts of Nkhata Bay and Nkhotakota. However, majority of central and northern areas experienced below normal dekad rainfall amounts as shown in Map 1 from figure 1.

Some stations that recorded at least 30mm of rainfall during this dekad included Chintcheche Agriculture in Nkhata Bay which recorded 141.0mm in 3 rainy days, Nkhata Bay Meteorological station recorded 113.7mm in 3 rainy days, Namitete in Lilongwe recorded 89.2mm in 2 rainy days, Dwangwa in Nkhotakota recorded 82.8mm in 4 rainy days, Mzuzu Meteorological station recorded 80.2mm in 3 rainy days, Toleza in Balaka recorded 56.0mm in 1 rainy day, Masambanjati Agriculture in Thyolo recorded 45.5mm in 2 rainy days, Neno Agriculture recorded 45.3mm in 1 rainy day, Nkhande in Ntcheu recorded 45.3mm in 1 rainy day, Mpemba Veterinary in Blantyre recorded 39.4mm in 1 rainy day and Bvumbwe Meteorological station in Thyolo recorded 37.9mm in 2 rainy days.

Spatial distribution of the actual recorded rainfall amounts shows lakeshore districts of Nkhotakota and Nkhata Bay as well as western areas of Lilongwe received higher rainfall amounts as shown in figure 2 below.

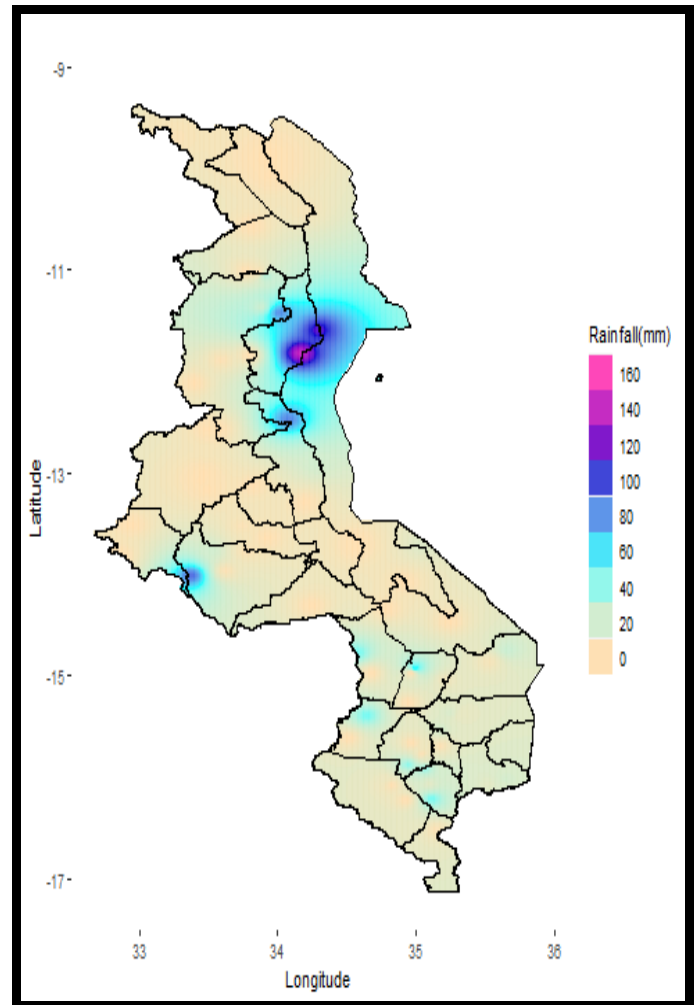


Figure 2: Observed dekad rainfall for Malawi, 11-20 November 2023

The overall rainy days distribution from 11 to 20 November 2023 is shown in figure 3 below. The highest number of 5 rainy days was registered at Mimosa Meteorological station in Mulanje despite the actual amounts not being above 30.0mm, Dwangwa had the second highest rainy days of 4 with majority of stations, that registered rainfall, over southern Malawi having 3 rainy days during the period under review.

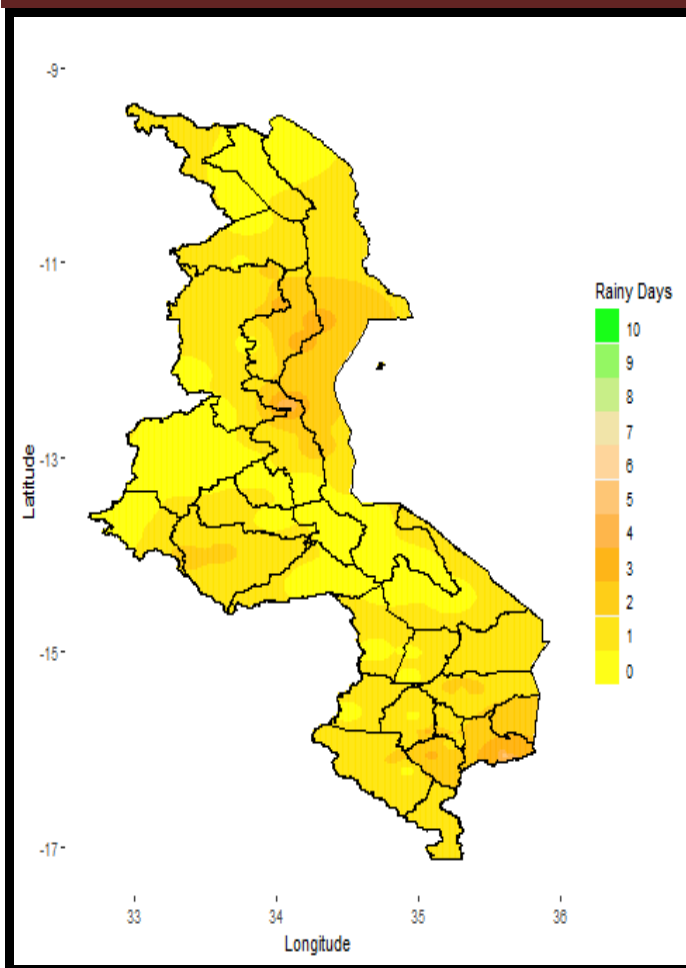


Figure 3: dekadal rainy days for Malawi, 11-20 November 2023

Cumulatively, since the start of seasonal monitoring on 01 October 2023 to 20 November 2023, normal to above normal rainfall amounts have been experienced over parts of Nkhata Bay, Nkhatakota, Lilongwe and majority of southern areas of the country with normal to below normal rainfall amounts over southern lakeshore areas, central and northern areas as shown in Map 2 in figure 1 above. However, the distribution of the rains in most areas has been very erratic this far.

1.2 AIR TEMPERATURE

Malawi experienced hot to locally very hot conditions during the period 11 to 20 November 2023. Mean daily maximum temperatures had ranged from 25.3°C at Dedza Meteorological station to 37.4°C at Ngabu Meteorological station in Chikwawa with absolute maximum of 42.5°C. Mean daily minimum temperatures had ranged from 16.2°C at Dedza Meteorological station to 24.3°C at Monkey Bay Meteorological station in Mangochi.

1.3 RELATIVE HUMIDITY

During the period under review, air over Malawi was moist over majority of southern areas, daily average Relative Humidity values recorded from various weather stations over southern areas had ranged from 67% at Makoka in Zomba to 93% at Chichiri Meteorological station in Blantyre. For majority of central and northern areas, air was relatively dry with daily average Relative Humidity values ranging from 44% at Bolero Meteorological station in Rumpfi to 60% at Kamuzu International Airport in Lilongwe and Kasungu 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 1.3 km per hour at Chitedze Meteorological station in Lilongwe to 12.7 km per hour at Chitipa Meteorological station.

1.5 SUNSHINE HOURS

Generally medium to long hours of bright sunshine were observed over Malawi during the period 11 to 20 November 2023. The daily values had ranged from 6.2 hours per day at Bvumbwe to 9.8 hours per day at Ngabu Meteorological station and consequently the amount of Solar Radiation had ranged from 8.2 to 11.7 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.

However, some farmers that planted during the previous two dekads are reportedly weeding particularly over southern Malawi.



Figure 4: Clement Mveke in Livunzu Extension Planning Area, Chikwawa, maize crop planted first dekad of November 2023.

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.

The continued rainfall episodes over southern areas have supported crop and pasture emergence as well as boosting availability of water for livestock. This has given farmers a variety of grazing options as well as hope of crop survival as the season settles in as depicted in figure 4 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 5 below.

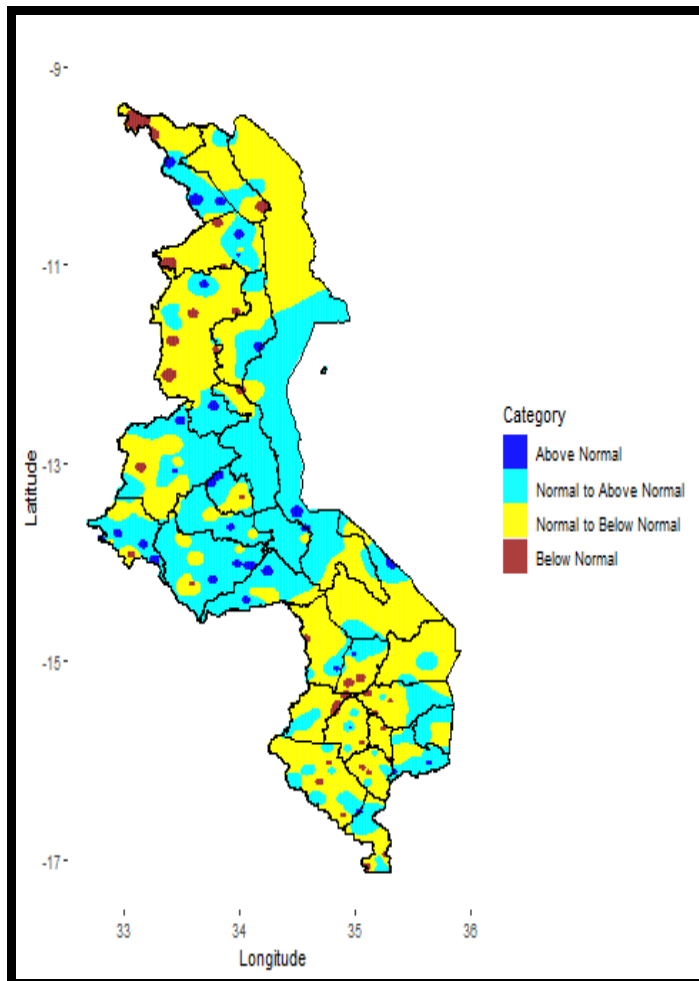


Figure 5: November 2023 rainfall forecast

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 6 below.

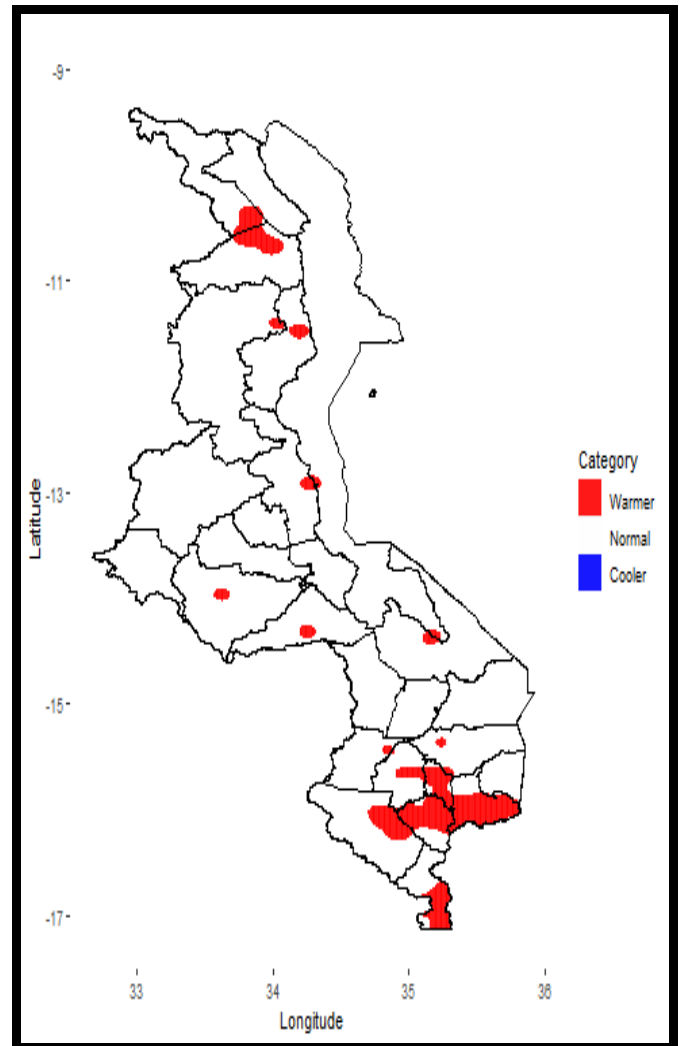


Figure 6: November 2023 temperature forecast

4. OUTLOOK FOR 21-30 NOVEMBER 2023

During the period 21 - 30 November 2023, as warm and unstable easterly airmass is expected to continue influencing weather over Malawi, generally normal to below normal rainfall amounts are anticipated over majority of central and southern areas of the country with normal to above normal conditions anticipated over southern highland areas. Extreme below normal conditions are anticipated over northern district of Karonga. This is represented by the map in Figure 7.

Farmers are advised to continue with their land preparation activities and accessing of certified farm inputs as they wait for effective planting rains for northern and some central areas while southern region farmers are advised to take advantage of the relatively dry conditions to do their weeding for those that planted and their crops have germinated.

For fish farmers, they are advised to continuously monitor their pond levels particularly over northern and central areas as the anticipated continued 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.

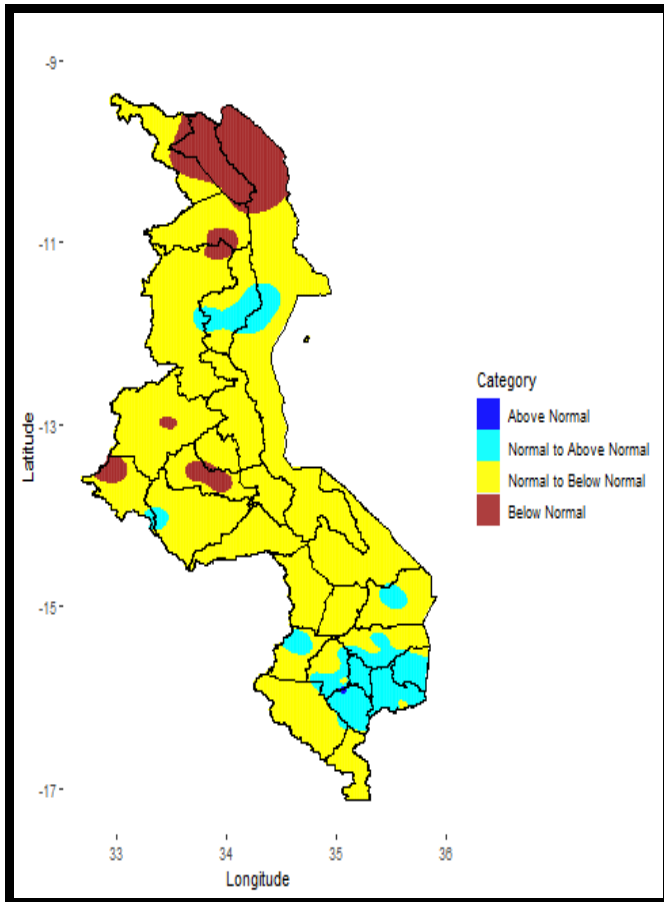


Figure 7: Dekadal rainfall outlook for Malawi for 21-30 November 2023 as percentage of normal rainfall