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 – 30 November 2022 | Season: 2022/2023 | Issue No.06

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HIGHLIGHTS

- **Scattered rainfall activities over southern and central areas, relatively dry north…**
- **Access to farm inputs, land preparation and planting in progress over most parts of the country…**
- **Wet conditions expected over northern and central areas, relatively dry south during 01 – 10 December 2022…**

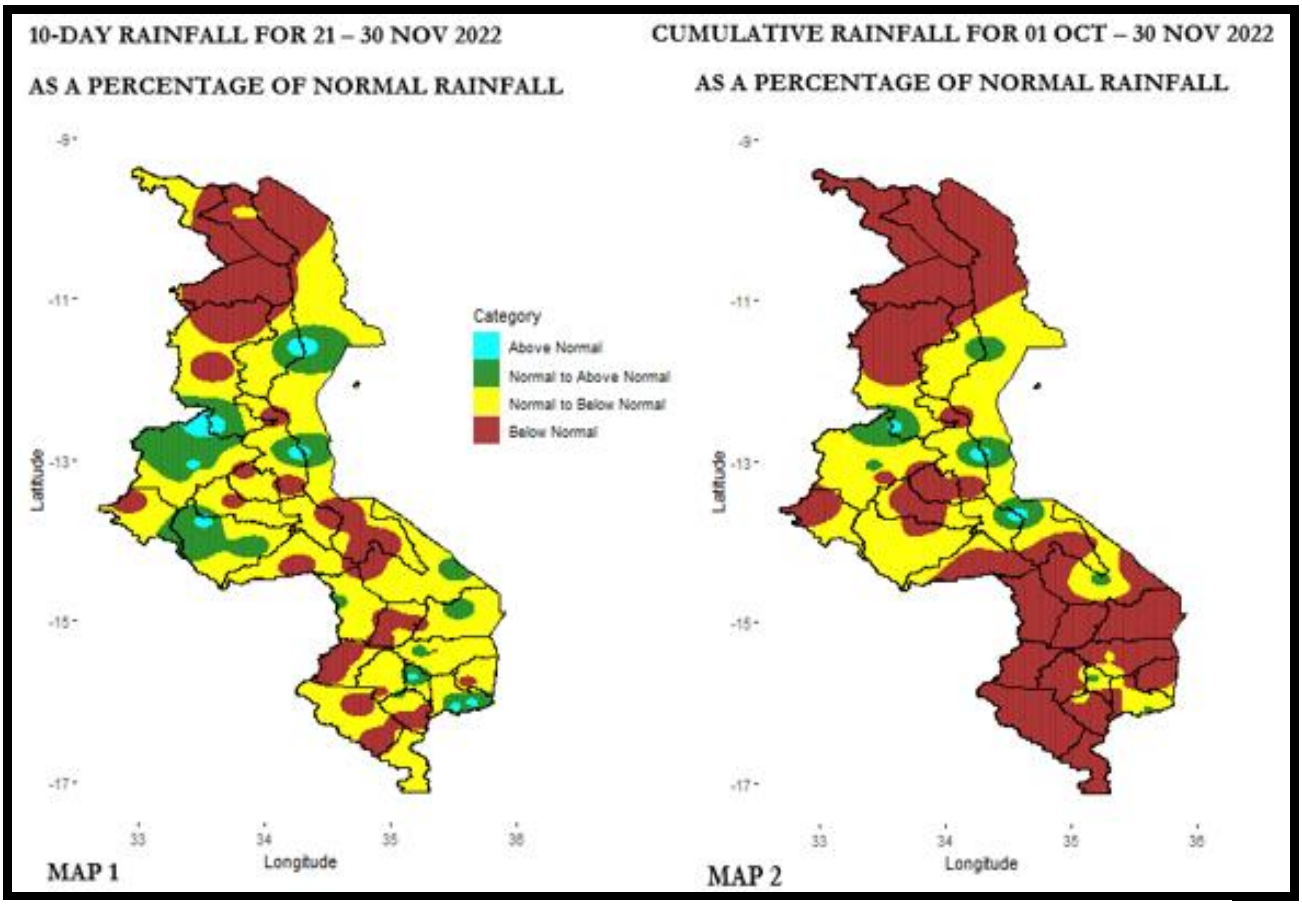

Figure 1: Observed dekadal and seasonal rainfall as percentage of normal for Malawi

1.0 WEATHER SUMMARY

During the period 21 to 30 November 2022, convergence ahead of pressure rises resulted in rainfall activities particularly over majority of central and southern areas of Malawi.

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1.1 RAINFALL SITUATION

During the last dekad of November 2022, fairly scattered rainfall activities were experienced over southern and central areas of the country with relatively dry conditions over northernmost areas of the country as shown in Map 1 above.

Stations that recorded at least 50.0mm of rainfall included Mulanje Boma which recorded 122.0mm in 4 rainy days, Lujeri Tea estate in Mulanje as well recorded 97.0mm in 3 rainy days, Nkhata Bay Meteorological station recorded 80.4mm in 3 rainy days as well , Mimosa Meteorological in Mulanje recorded 69.7mm in 4 rainy days and Kasiya Agriculture in Lilongwe recorded 51.4mm.

Cumulatively, since the start of October 2022 to 30 November 2022, below normal rainfall amounts have been experienced over northern and southern areas while central areas have experienced normal to below normal with few pockets of normal to above normal as shown in Map 2 above.

1.2 AIR TEMPERATURE

Malawi experienced hot to locally very hot conditions during the period 21 to 30 November 2022. Mean daily maximum temperatures had ranged from 25.6°C at Dedza Meteorological station to 35.9°C at Ngabu Meteorological station in Chikwawa, with highest absolute maximum temperature of 41.1°C recorded at the station. Mean daily minimum temperatures had ranged from 17.1°C at Mzuzu Meteorological station to 25.0°C at Monkey Bay Meteorological station in Mangochi.

1.3 RELATIVE HUMIDITY

During the period 21 to 30 November 2022, air over Malawi was relatively moist. Mean daily average Relative Humidity values recorded from various weather stations had ranged from 44% at Ngabu Meteorological station to 72% 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 3.6 km per hour at Nkhotakota Meteorological station to 12.2 km per hour at Chileka Meteorological station in Blantyre.

1.5 SUNSHINE HOURS

Generally medium to long hours of bright sunshine were observed over Malawi during the last dekad of November 2022. Mean daily values had ranged from 6.7 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 8.6 to 12.3 cal/cm²/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 for majority of farmers over central and northern areas. However, majority of farmers have planted over southern Malawi and those that planted early are reported to be weeding and some applying basal fertilizer.

Figure 2: Early planted maize at Milonde Extension Planning Area in Mulanje

The rainfall experienced during the dekad under review enabled majority of farmers to plant over southern areas as can be seen in figure 3 below.

Figure 3: Newly planted field, Kunthembwe Extension Planning Area, Chileka, Blantyre

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 2022/2023 RAINFALL SEASON

The 2022-2023 rainfall is expected to be influenced by La Nina 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 2022/2023 season is that:

"During October to December 2022, most of the southern and central areas are expected to receive normal to above-normal cumulative rainfall mounts while most of the northern areas are expected to receive normal to below-normal rainfall amounts.

During January to March 2023, most areas in the south, center and the north are expected to receive normal to above-normal cumulative rainfall amounts."

At national level, there are higher prospects of normal to above normal cumulative rainfall amounts over most parts during the 2022/2023 season.

During the month of December 2022, normal to above normal rainfall amounts are anticipated for majority of areas over southern Malawi with normal to below normal projections for majority of areas over central and northern Malawi. Refer to figure 4 below.

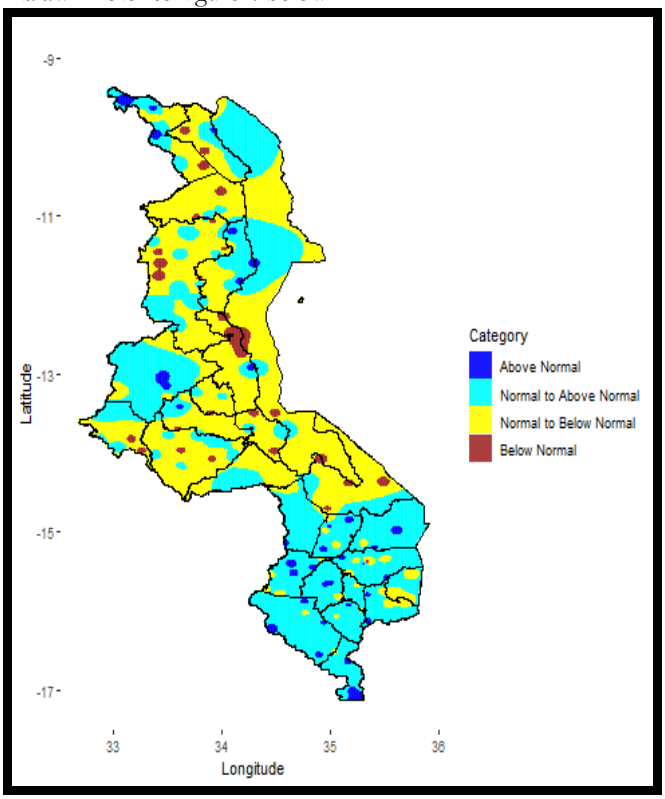

Figure 4: December 2022 rainfall forecast categories

In terms of temperature, warmer than usual conditions are anticipated to persist during the month of December over selected areas of the country with normal temperature conditions over most of southern and northern areas as shown in figure 5 below.

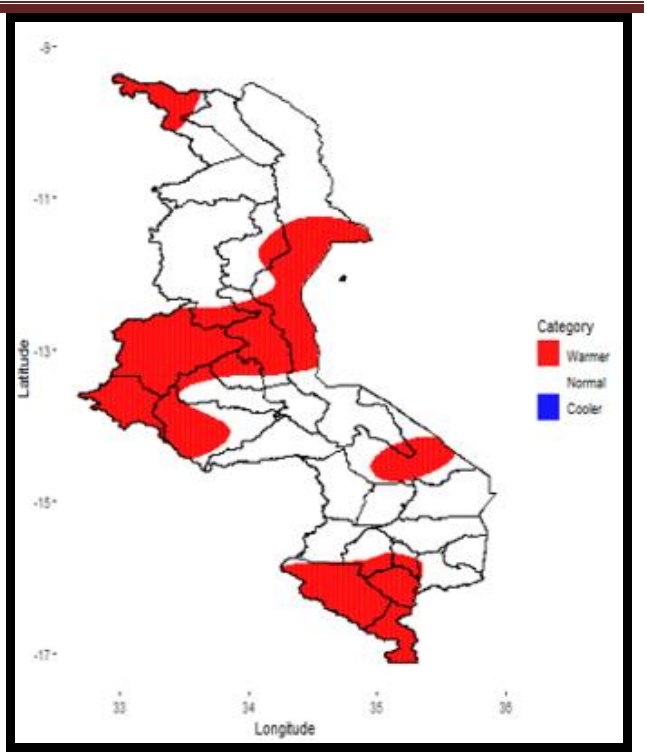

Figure 5: December 2022 temperature forecast categories

5. OUTLOOK FOR 01-10 DECEMBER 2022

Wet conditions are anticipated over northern and central areas with relatively dry conditions expected over southern areas during 01 to 10 December 2022. The anticipated dekadal rainfall amounts are generally within the normal categories of the historical dekadal amounts for northern and central areas while below normal categories of the historical dekadal amounts for southern areas. Hot to locally very hot temperatures are anticipated during this period.

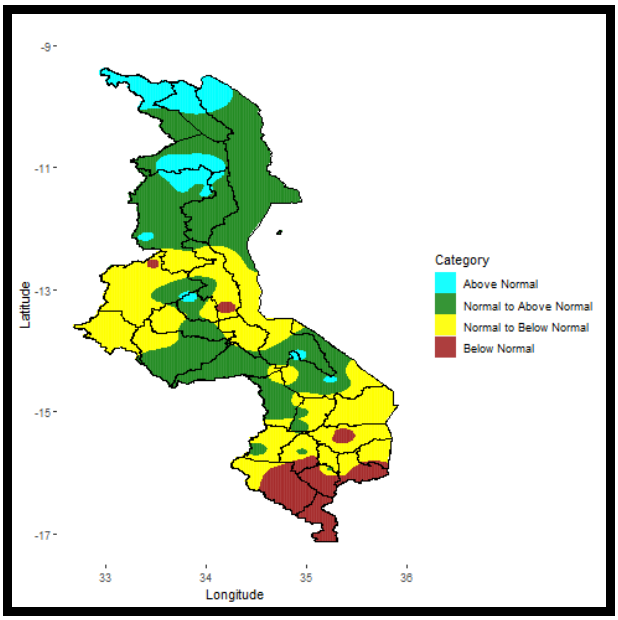

Figure 6: Dekadal rainfall outlook for Malawi during 01-10 December 2022 as percentage of normal rainfall