

HIGHLIGHTS

- Locally heavy rains experienced during the period 21-28 February 2023...
- Maize maturing over southern, tasseling to cobing over central and northern areas...
- Wet conditions to persist over Malawi during 01 – 10 March 2023...

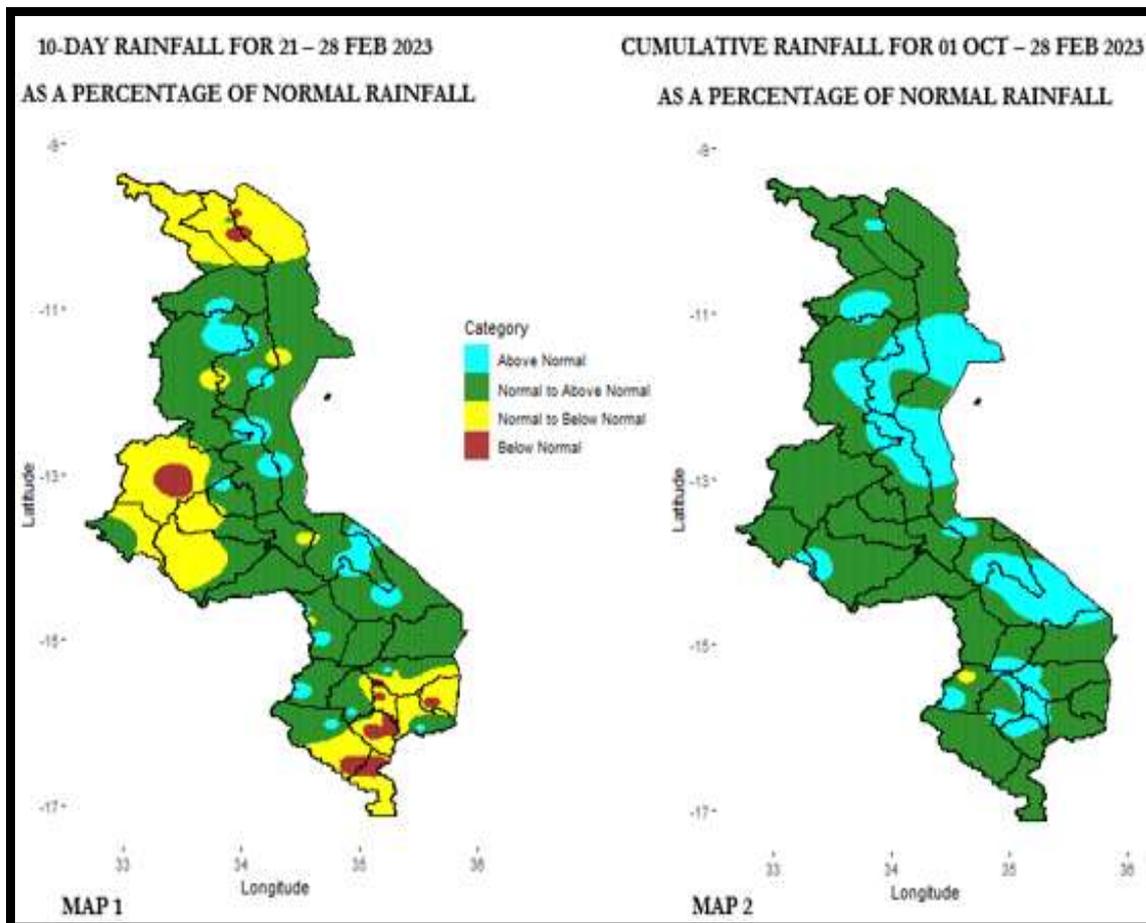


Figure 1: Observed dekadal and seasonal rainfall as percentage of normal for Malawi

1.0 WEATHER SUMMARY

During the period 21 to 28 February 2023, the Inter-Tropical Convergence Zone (ITCZ) coupled with sporadic influx of Congo airmass influenced weather over Malawi resulting in scattered rainfall activities which were heavy at times, with generally warm to hot temperature conditions experienced across the country.

1.1 RAINFALL SITUATION

During the period under review, scattered rainfall activities were experienced over the country as shown in Map 1 above. The recorded dekadal rainfall amounts were normal to above normal of historical dekadal rainfall amounts for some central and southern lakeshore areas. Northernmost districts of Chitipa and Karonga, western areas of central region and southernmost districts of Chikwawa and Nsanje among others experienced normal to below normal rainfall amounts.

Stations that recorded at least 100.0mm of rainfall during this period included Dwangwa in NkhotaKota which recorded 158.3mm in 4 rainy days, Mwanza Boma recorded 149.4mm in 5 rainy days, Lujeri Tea estate in Mulanje recorded 131.5mm in 5 rainy days, Njolomole Agriculture in Ntcheu recorded 118.2mm in 6 rainy days, Nkhotakota Meteorological station recorded 107.3mm in 6 rainy days, Dzonzi Forest in Ntcheu recorded 103.1mm in 7 rainy days and Mpilipili in Mangochi recorded 102.5mm in 2 rainy days.

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

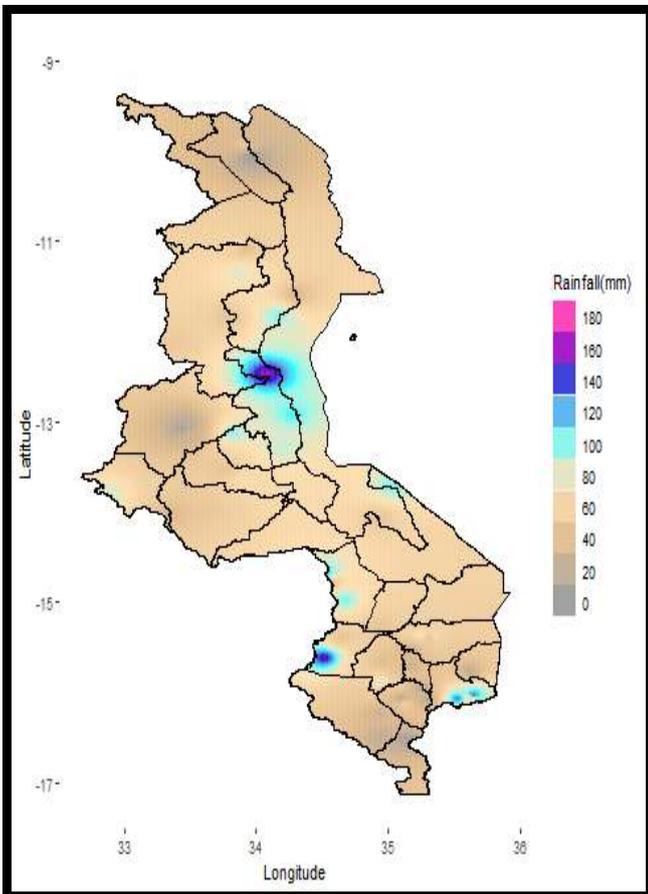


Figure 2: Observed dekadal rainfall for Malawi, 21-28 February 2023

The overall rainy days distribution from 21 to 28 February 2023 is shown in figure 3 below.

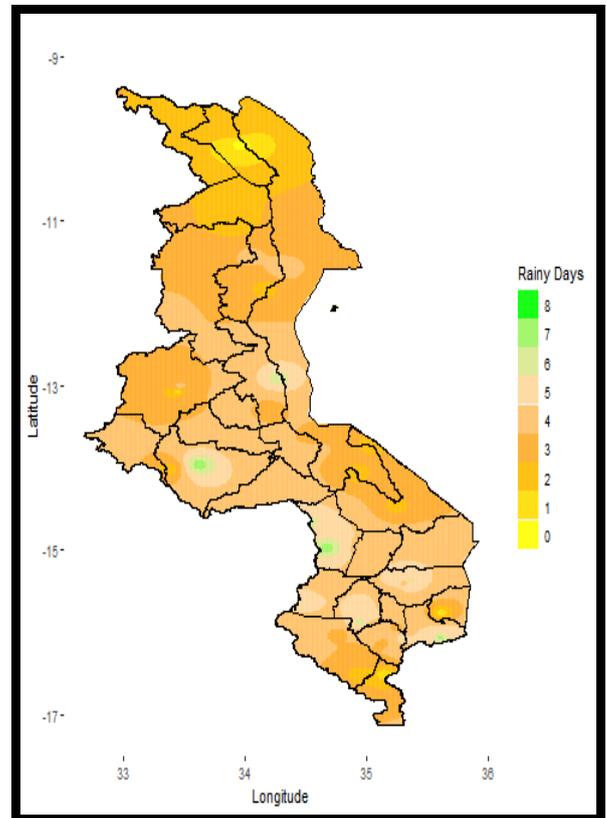


Figure 3: dekadal rainy days for Malawi

Cumulatively, since the start of October 2022 to 28 February 2023, normal to above normal rainfall amounts have been experienced over majority of areas of the country with cases of normal to below normal rainfall amounts over Neno as shown in Map 2 in figure 1 above.

1.2 AIR TEMPERATURE

Malawi experienced warm to hot conditions during the period 21 to 28 February 2023. Mean daily maximum temperatures ranged from 25.3°C at Dedza Meteorological station to 35.2°C at Ngabu Meteorological station in Chikwawa. Mean daily minimum temperatures had ranged from 16.7°C at Dedza Meteorological station to 24.8°C at Ngabu Meteorological station.

1.3 RELATIVE HUMIDITY

During the period 21 to 28 February 2023, air over Malawi was generally moist. Mean daily average Relative Humidity values recorded from various weather stations had ranged from 64% at Ngabu Meteorological station to 81% at Bvumbwe and Mzuzu Meteorological stations in Thyolo and Mzimba districts, respectively.

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 0.8 km per hour at Bolero and Makoka Meteorological stations in Rumphi and Zomba districts respectively to 13.4 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 last dekad of February 2023. Mean daily values had ranged from 6.5 hours per day at Bvumbwe Meteorological station to 8.6 hours per day at Ngabu Meteorological station and consequently the amount of Solar Radiation had ranged from 9.6 to 12.3 cal/cm²/day.

2. AGROMETEOROLOGICAL ASSESSMENT

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

The rainfall experienced during the dekad under review supported maturity of maize, growth and development of rice as well as enabling farmers to plant tuber crops such as sweet potatoes. Moreover, the rains ensured continued availability of water for livestock as well as growth and development of pastures.

Maize crop stand is very encouraging in all the three regions particularly where fertilizer or manure was applied as well as good agricultural practices as stipulated by the Ministry of Agriculture, were adhered to. The crop is reportedly at tasseling and cobbing stages over majority of central and northern areas while generally maturity over southern areas captured in figure 4 below.

Furthermore, majority of cash crops such as 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 2023/2024 Tobacco marketing season.

However, over the course of the rainfall season, there have been reports of flooding leading to crop wash aways as well as sporadic cases of Fall Army Worm and snail infestation particularly over central areas of the country.

Furthermore, northern districts of Karonga and Chitipa have experienced relatively dry conditions resulting in moisture stress for crops such as Maize as depicted in figure 5 below. This has the potential to negatively affect the good crop stand thereby affecting production at local scale. Nevertheless, maize fields where climate smart agriculture technologies, such as *mtayakhasu*, *ulimi wa mphimbila* are in use have showed limited maize crop stress.



Figure 4: Maturing maize stand, Njuli, Southern Malawi

For proper utilization of rain water during the 2022/2023 rainfall season, farmers are encouraged to adhere to principles of good agricultural practices including use of moisture conservation, timely control of weeds, pests and diseases; and

fertilizer/ manure application.



Figure 5: Stressed maize, Mpata Extension Planning Area, northern Karonga

3. PROSPECTS FOR 2022/2023 RAINFALL SEASON

The 2022/2023 rainfall is being 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 second part of the 2022/2023 season is that:

“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 sub-season January, February and March (JFM) of the 2022/2023 season.

During the month of March 2023, normal to above normal rainfall amounts are anticipated for majority of areas over Malawi with projections of above normal rainfall amounts over southern areas and pockets of normal to below normal projections for some areas of the country, particularly central region. Refer to figure 6 below.

4. OUTLOOK FOR 01-10 MARCH 2023

Wet conditions are anticipated over Malawi during the first dekad of March 2023. The anticipated dekadal rainfall amounts are expected to be within the normal to above normal categories of the historical dekadal amount. (Represented by green and cyan colours in Figure 8).

Farmers are advised to continuously follow weather forecasts and advisories during the growing season for proper planning and utilization of the weather and climate information and services in their various agricultural activities.

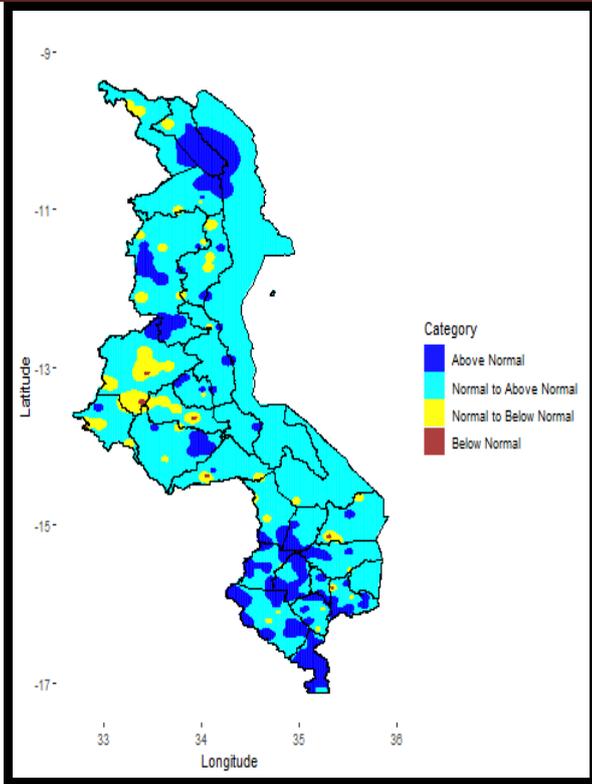


Figure 6: March 2023 rainfall forecast categories

In terms of temperature, generally normal conditions are anticipated to prevail during the month of March over majority of areas of the country with pockets of warmer than usual temperature conditions over some areas in the central and southern regions of the country (represented by red colour). More details as shown in figure 7 below.

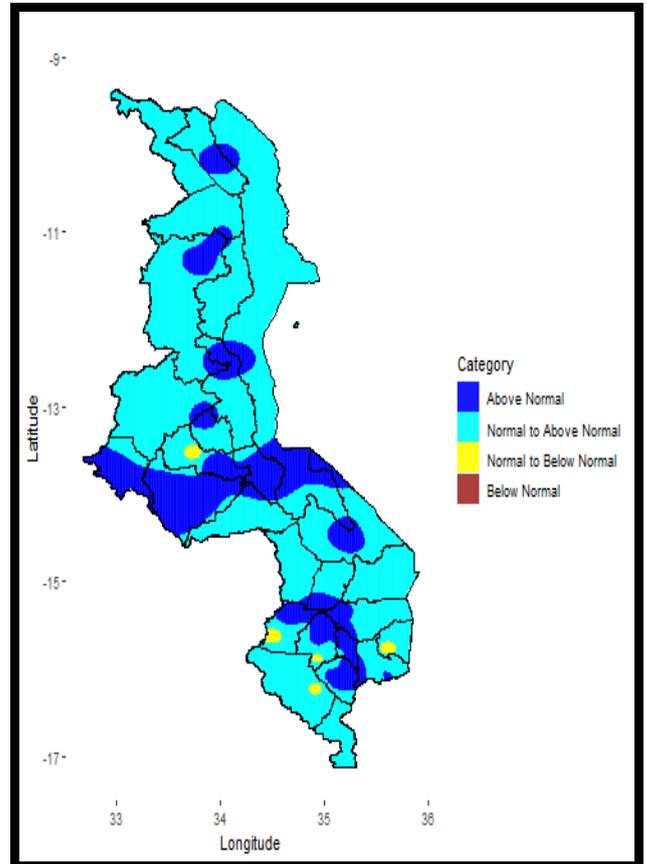


Figure 8: Dekadal rainfall outlook for Malawi for 01-10 March 2023 as percentage of normal rainfall

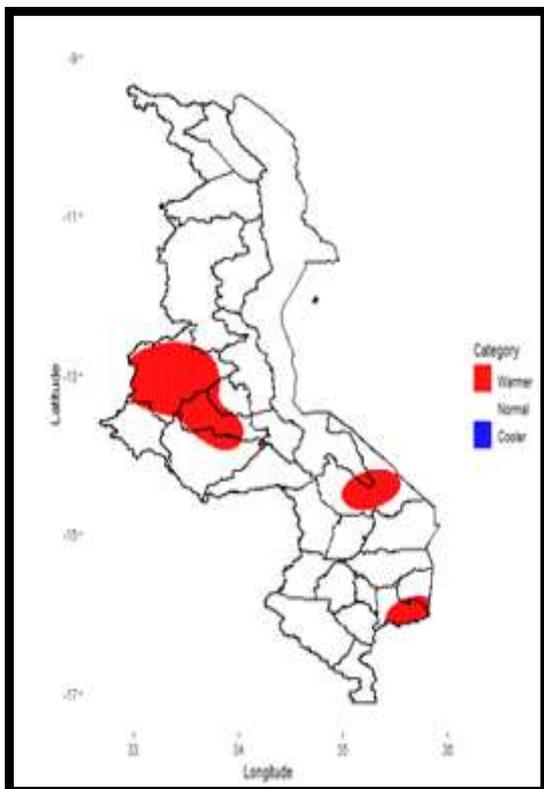


Figure 7: March 2023 temperature forecast categories