

Malawi 10-day Weather and Agrometeorological Bulletin

"In support of National Early Warning Systems and Food Security"



Period: 21 – 31 January 2025

Season: 2024/2025 Release date: 04 February 2025 Issue No.12

HIGHLIGHTS

- Wet conditions observed across the country...
- Fertilizer applications in progress and some maize at tasseling stage...
- Improved rainfall intensity expected across the country during the first dekad of February 2025...



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

1.0 WEATHER SUMMARY

During the last dekad of January 2025, Congo air mass was dominant over the country resulting in localized heavy rains which has caused flash flooding over Machinga ADD.

1.1 RAINFALL SITUATION

During the period under review, there was significant improvement of temporal and spatial distribution of rainfall across the country. Most areas received generally normal to above normal range of historical dekadal amounts with the central and southern parts having above normal rainfall amounts. Since the onset of the season, cumulatively the country has generally experienced normal to above normal conditions with greater part of central region recording normal to below normal rainfall (Map 2 from figure 1)

The rainfall amounts observed during the last dekad of January 2025 were as high as 250mm in some areas. Toleza Farm in Balaka recorded 278.4mm in 10 rainy days, Masambanjati Agriculture in Thyolo recorded 257.4mm in 9 rainy days, Chikwawa Boma recorded 243mm in 8 rainy days, Lujeri Tea Estate recorded 226.7mm in 9 rainy days, Kasinthula Research Station in Chikwawa recorded 212.3mm in 8 rainy days, Thyolo Boma recorded 204mm in 8 rainy days, Nankumba Agriculture in Mangochi recorded 202.5mm in 10 rainy days, Liwonde Township in Machinga recorded 194.9mm in 8 rainy days, Dedza Meteorological station recorded 194.6mm in 11 rainy days, Mpilipili in Mangochi recorded 189.7mm in 10 rainy days, Satemwa Tea Estate in Thyolo recorded 187mm in 9 rainy days, Dowa Agriculture recorded 185.2mm in 7 rainy days, Salima Meteorological station recorded 182.8 mm in 10 rainy days, Njolomole in Ntcheu recorded 179.1 mm in 9 rainy days, Ntaja Meteorological station in Machinga recorded 173.4 mm in 8 rainy days, Mpemba Veterinary in Blantyre recorded 171.3 mm in 9 rainy days and Bvumbwe Meteorological station recorded 171 mm in 9 rainy days. Higher rainfall figures in excess of 100mm were also reported in many other areas as shown in figure 2 below.





The overall rainy days distribution had ranged from 3 to 11 during the period under review as shown in figure 3 below.

Dedza Meteorological station, Nathenje Agriculture and Mangochi Meteorological station recorded 11 rainy days while Toleza Farm, Nankumba Agriculture, Mpilipili Salima Meteorological station, Nkhande, Lifuwu, Namwera Agriculture, Chiradzulu Agriculture and Monkey Bay Meteorological station- registered 10 rainy days.



Figure 3: Dekadal rainy days for Malawi, 21-31 January 2025

1.2 AIR TEMPERATURE

During the last dekad of January 2025, temperatures were generally warm whereby the average maximum temperature ranged from 23.3°C at Bvumbwe Meteorological station in Thyolo to 31.4°C at Ngabu Meteorological station in Chikwawa. The average daily minimum temperatures ranged from 16.5°C at Dedza Meteorological station to 24.2°C at Ngabu Meteorological station.

1.3 RELATIVE HUMIDITY

During the period under review the air over Malawi was very moist and the daily average Relative Humidity values recorded from various weather stations across the country had ranged from 69% at Karonga Meteorological station to 90% at Bvumbwe Meteorological Station.

1.4 WIND SPEEDS

Most parts of Malawi experienced generally light wind speeds with occasional gusty winds during thundery activities. The range of daily average wind speed measured at a height of two metres above the ground was 0.7 km per hour at Mangochi and Nkhotakota Meteorological stations to 8.3 km per hour at Chileka Meteorological station.

1.5 SUNSHINE HOURS

Generally medium to long hours of bright sunshine were observed over Malawi during the period 21 to 31 January 2025. The daily values of sunshine hours had ranged from 6.1 hours per day at Bvumbwe Meteorological station to 7.6 hours per day at Ngabu Meteorological station and consequently the amount of Solar Radiation had ranged from 8.3 to 12.3 cal/cm²/day.

2. AGROMETEOROLOGICAL ASSESSMENT

Due to improved temporal and spatial distribution of rainfall activities during the third dekad of January 2025, crops like maize are now performing well. For those who planted early the maize are now at tasseling and cobbing stages. The main on-farm activities have been application of basal fertilizer for majority of farmers across the country with a promising crop stand as captured in figure 4 below. Figure 5 shows a maize field in Mchinji captured in December 2024 (image A) versus image B captured during the last dekad of January 2025 depicting crop stand improvement due to the improved distribution of rainfall activities.



Figure 4: Good crop stand in Lilongwe, Mpingu EPA



Figure 5: A great improvement of a maize field in Mchinji

Other cash crops such as tobacco are also reported to have recovered from the dry conditions experienced in the preceding reporting periods (figure 6).



Figure 6 Tobacco field in Ntchisi

For livestock farmers, pastures and water availability continues to improve due to the sustained rainfall activities. 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 2024/2025 SEASON

The 2024-2025 rainfall season is being 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 remaining part of the season.

The rainfall forecast for the sub-season January-February-March (JFM) of the 2024/2025 season is:

"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 2025."

Illustration of the forecast is given in Figure 7 below.

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Figure 7: Forecast categories for JFM

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

For the month of February 2025, normal to above normal rainfall amounts are anticipated over majority of areas of the country with pockets of above normal conditions. Refer to Figure 8 below map (1). The actual anticipated rainfall amounts are generally in the range 100 to 350 mm as shown in map (2) of Figure 8 below.



Figure 8: February 2025 rainfall forecast (a) categories and (b) amounts

In terms of temperature, February is anticipated to experience mostly normal temperatures across Malawi, as shown in map (1) in Figure 9 below. Lakeshore and southern areas are expected to have maximum temperatures ranging from 30°C to 36°C, as captured in map (2) in Figure 9 below.



4. OUTLOOK FOR 01 - 10 FEBRUARY 2025

Generally wet conditions are anticipated across the country which are likely to be above normal rainfall as shown in Figure 10. This is due to the combined influence of the Inter Tropical Convergence Zone (ITCZ) and Congo airmass. During this period the likelihood of being affected by a Tropical storm mainly over the south is above 50 %. This will likely enhance rainfall activities over the south during the forecast period.



Figure 10: Dekadal rainfall outlook for Malawi for 01-10 February 2025