

# Malawi 10-day Weather and Agrometeorological Bulletin

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



Period: 11 – 20 February 2025

Season: 2024/2025 Release date: 24 February 2025

# Issue No.14

# HIGHLIGHTS

- Generally wet conditions mainly over central and southern areas, dry north...
- Maize at tasseling and cobbing stages over most areas...
- Below normal conditions expected mainly over the north during the last dekad of February 2025...



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

# **1.0 WEATHER SUMMARY**

The Inter-Tropical Convergence Zone (ITCZ) remained active over Malawi during the second dekad of February 2025 resulting in scattered thunderstorms and locally heavy rains mainly over the south. Comparatively northern areas experienced relatively dry conditions.

#### 1.1 RAINFALL SITUATION

Generally normal to above normal range of historical dekadal amounts were observed mainly over the south and some parts of central areas while the north experienced normal to below normal rainfall amounts. As of 10<sup>th</sup> February 2025, cumulative rainfall amounts for the country remain generally normal to above normal conditions for the southern half of the country while normal to below normal for most of northern and central areas (Map 2 from figure 1).

Total rainfall amounts exceeding 150mm during the period under review were observed from the following stations; Chiradzulu Agriculture recorded 248.4 mm in 9 rainy days, Lujeri Tea Estate in Mulanje recorded 243.2 mm in 7 rainy days, Chikwawa Boma recorded 232.1 mm in 5 rainy days, Chingale Agriculture in Zomba recorded 203.3 mm in 6 rainy days, Mwanza Boma recorded 187.6 mm in 7 rainy days, Mulanje Boma recorded 186.7 mm in 10 rainy days, Chileka (Namitete) recorded 186.2 mm in 7 rainy days, Kasinthula Research station in Chikwawa recorded 176.2 mm in 4 rainy days, Masambanjati Agriculture in Thyolo recorded 175.8 mm in 6 rainy days and Namwera Agriculture in Mangochi recorded 156.8 mm in 8 rainy days. Figure 2 below shows the rainfall distribution across the country.



Southern areas with an average of 7 rainy days registered higher rainy days as compared to central and northern areas of the country as captured in in figure 3 below. Mulanje Boma and Makoka Meteorological station in Zomba registered 10 rainy days, Chiradzulu Agriculture, Mimosa Meteorological station in Mulanje, Chichiri Meteorological station in Blantyre, Bvumbwe Meteorological station in Thyolo had 9 rainy days while Namwera Agriculture in Mangochi, Phalula Agriculture in Balaka, Zomba Agriculture, and Chancellor College in Zomba registered 8 rainy days. Most of northern areas registered less than 3 rainy days.



Figure 3: Dekadal rainy days for Malani, 11-20 February 2025

# 1.2 AIR TEMPERATURE

Temperatures were generally hot during the second dekad of February 2025. The average maximum temperature ranged from 26.4°C at KIA Meteorological station to 34.0°C at Ngabu Meteorological station in Chikwawa. The average daily minimum temperatures ranged from 17.0°C at Mzuzu Meteorological station to 24.4°C at Ngabu Meteorological station. 27.4°C at Mzimba Meteorological station.

#### **1.3 RELATIVE HUMIDITY**

During the period under review air over Malawi was moderate moist and the daily average Relative Humidity values recorded from various weather stations across the country ranged from 70% at Chileka Meteorological station to 83% at Mimosa and Makoka Meteorological Stations.

# **1.4 WIND SPEEDS**

Winds over Malawi were generally light to moderate with the range of daily average wind speed measured at a height of two metres above the ground from 0.7km per hour at Ntaja Meteorological station in Machinga to 7.2 km per hour at Salima Meteorological station.

#### **1.5 SUNSHINE HOURS**

Generally medium to long hours of bright sunshine were observed over Malawi during the period 11 to 20 February 2025. The daily values of sunshine hours had ranged from 6.0 hours per day at Bvumbwe Meteorological station to 7.8 hours per day at Salima Meteorological station and consequently the amount of Solar Radiation had ranged from 8.3 to 12.7 cal/cm<sup>2</sup>/day.

# 2. AGROMETEOROLOGICAL ASSESSMENT

There is good crop stand particularly for maize despite variations in growth stages even within the same area due to different planting time as a result of erratic onset of rains (Figure 4). On farm activities during the second dekad of February were application of fertilizer and also planting of tubers like sweet potato and cassava. For those who planted early the maize are now at tasseling and cobbing stages.

The rainfall experienced mainly over southern and central areas during the dekad under review supported vegetative growth and development of crops including maize. The stages of development of the maize crop are varied across the country due to erratic seasonal onset. Maize crop is generally at tasseling to cobbing stages over majority of areas of the country with some maturing over southern areas for early planted maize crop and survived the prolonged dry spell experienced in the region.

Maize crop stand is encouraging particularly where fertilizer or manure has been applied as well as good agricultural practices have been adhered to as depicted in figure 4 below.



Figure 4: Maize field in Salima ADD

During the second dekad of February 2025, the main on-farm activities have been application of top-dressing fertilizer and banking for some farmers over northern half of the country, while majority of farmers over northern Malawi are inactive due to the dry conditions being experienced over the region for close to a month.

However, there are some concerns of reduced crop production for subsistence and cash crops at local scale due to the impacts of the dry conditions that are being experienced particularly over parts of some northern districts like Karonga and Chitipa where generally normal to below normal conditions have been experienced since the commencement of the 2024/2025 rainy season.



Figure 5 Stressed water field in Karonga as the dry spell is expected to continue over the north

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 abovenormal total rainfall amounts over most areas with possibility of outright above normal rainfall in January 2025."

Illustration of the forecast is given in Figure 6 below.



Figure 6: 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 6 below map (1). The actual anticipated rainfall amounts are generally in the range 100 to 350 mm as shown in map (2) of Figure 7 below.



Figure 7: February 2025 rainfall forecast (a) categories and (b) amounts

In terms of temperature, February is anticipated to experience mostly normal temperatures across Malawi with cases of warmer than normal temperatures expected in all the three regions and cooler than normal over parts of Chikwawa district as shown in map (1) in Figure 8 below. Lakeshore and Shire Valley areas are expected to have maximum temperatures ranging from 30°C to 36°C, as captured in map (2) in Figure 8 below.





#### 4. OUTLOOK FOR 21 – 28 FEBRUARY 2025

Rainfall intensity over the north is expected to reduce during the last dekad of February while for most of the southern areas localized heavy rainfall episodes are anticipated which will lead to normal to above normal conditions as shown in Figure 9. This is due to the influence of the Channel air as there's more than 50 % chance for development of Tropical Storm in the Indian Ocean. The risk of flash flooding is high in some areas over Shire Valley and Blantyre Agricultural Development Divisions.

Farmers mainly over the north are strongly advised to practice good farming technics such as moisture conservation that will assist them to utilize the little moisture which they will receive during this period.

Livestock farmers, are encouraged to take proactive measures in ensuring their stock is guarded against worms, parasites as the seasonal conditions may provide suitable environment for breeding of the same.



Figure 9: Dekadal rainfall outlook for Malawi for 21-28 February 2025