

Malawi 10-day Weather and Agrometeorological Bulletin

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



Period: 01 – 10 January 2025

Season: 2024/2025 Release date: 14 January 2025 Issue No.10

HIGHLIGHTS

- Scattered rainfall activities across the country, heavy at times....
- Weeding and fertilizer applications in progress over majority of areas...
- Wet conditions expected over more areas during the second dekad of January 2025...



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

1.0 WEATHER SUMMARY

During the first dekad of January 2025, most areas experienced thunderstorms and rains which were heavy at times as the Inter-Tropical Convergence Zone (ITCZ) influenced weather over the country.

1.1 RAINFALL SITUATION

During the first dekad of January 2025, scattered rainfall activities were experienced over the country. The recorded rainfall amounts were generally within the normal to above normal range of historical dekadal amounts over majority of Shire highlands, northern and central areas of the country with normal to below normal over Shire Valley areas and the western sector of the southern areas. More in Map 1 from figure 1.

Cumulatively since the start of rainfall monitoring season from first dekad of October 2024, the country has experienced normal to below normal conditions with pockets of normal to above normal conditions noticeable over northern lakeshore areas.

The following stations recorded at least 150mm of rainfall during the first dekad of January 2025; Dwangwa Sugar Company in Nkhotakota recorded 306mm in 7 rainy days, Nkhotakota Meteorological station recorded 205.3mm in 8 rainy days, Lifuwu station in Salima recorded 188.8mm in 8 rainy days, Chikangawa forest recorded 164.9mm in 9 rainy days and Vinthukutu Agriculture recorded 162mm in 3 rainy days. The spatial distribution of actual recorded rainfall values is shown in figure 2 below.



Figure 2: Observed dekadal rainfall for Malawi, 01-10 January 2025

The overall rainy days distribution during the period under review improved as shown in figure 3 below where most stations had a range of 3 to 9. Chikangawa forest, Chitipa Meteorological station, Mzimba Meteorological station and Mbawa Agricultural Research station registered the highest number of 9 rainy days while Nkhotakota Meteorological station, Lifuwu Agricultural Research station, Namwera Agriculture, Bolero Agricultural Research station, Chitedze Agricultural Research station, Mpilipili Agriculture and Nkhata Bay Agricultural Research station registered 8 rainy days.



Figure 3: Dekadal rainy days for Malawi, 01-10 January 2025

1.2 AIR TEMPERATURE

Generally hot conditions were observed during the period of 01-10 January 2025. The average daily maximum temperature ranged from 25.1°C at Dedza Meteorological station to 36.7°C at Ngabu Meteorological station in Chikwawa. On the other hand, average daily minimum temperatures ranged from 17.2°C at Mzuzu and Dedza Meteorological stations to 25.6°C at Ngabu Meteorological station.

1.3 RELATIVE HUMIDITY

During the period under review the air over Malawi was relatively moist. Daily average Relative Humidity values recorded from various weather stations across the country had ranged from 51% at Nkhotakota Meteorological station to 85% at Salima Meteorological Station.

1.4 WIND SPEEDS

During the period under review, most parts of Malawi experienced generally light wind speeds with occasional gusty winds during thundery activities. The daily average wind speed measured at a height of two metres above the ground level across the country ranged from 0.7 km per hour at Bolero Meteorological station in Rumphi, to 11.5km per hour at Nkhotakota Meteorological station.

1.5 SUNSHINE HOURS

Generally medium to long hours of bright sunshine were observed over Malawi during the period 01 to 10 January 2025. The daily values of sunshine hours had ranged from 6.1 hours per day at Nkhata Bay Meteorological station to 7.3 hours per day at Ngabu Meteorological station and consequently the amount of Solar Radiation had ranged from 8.3 to 11.2 cal/cm²/day.

Season: 2024/2025

2. AGROMETEOROLOGICAL ASSESSMENT

During the first dekad of January 2025, the main on-farm activities have been weeding and application of basal fertilizer for majority of areas across the country while some are planting and replanting as a result of erratic rainfall onset for the season.

The rainfall experienced during the dekad under review supported vegetative growth and development of maize as captured in figure 4 below. The level of growth of maize is varied as the seasonal onset was erratic even in same Extension Planning Areas. Other cash crops such as tobacco are also reported to have recovered from the dry conditions experienced in the preceding reporting periods.



Figure 4 Improved maize field following the wet spell in Blantyre

However, some areas continue to experience normal to below normal conditions resulting in water stress in some crops as captured in figure 5 below. Moreover, the rainfall episodes experienced are quickly followed by extreme sunny days which are creating favorable conditions for pests like the Fall Army Worm (FAW) as reported by the Ministry of Agriculture in various parts of the country.



Figure 5: Water stressed crop in Mulanje under Blantyre ADD

Furthermore, the rainfall experienced during the period 01 to 10 January 2025, necessitated rice growing farmers to transplant over northern and central lakeshore areas of the

country as well as planting of tubers such as potatoes in majority of potato growing districts.

For livestock, majority of livestock in the country were under Temperature Humidity Index ranges of mild heat stress as the country experienced generally warm and moist conditions. The rains also ensured continued pasture growth and water availability to various stock as captured in figure 6 below



Figure 6: Improved pasture growth

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. PROSPECT'S 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 .



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 January 2025, above normal rainfall amounts are anticipated over majority of areas of the country with pockets of normal conditions. Refer Figure 8 below map (1). The actual anticipated rainfall amounts are generally in the range 200 to 350 mm as shown in map (2) of Figure 8 below.



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

In terms of temperature, generally cooler than normal conditions are anticipated during the month of January 2025 over most areas of the country as shown in map (1) in Figure 9 below. Lakeshore and southern areas are expected to have temperatures of around 30 to 32 Degrees Celsius while about 26 to 28 Degrees Celsius elsewhere as captured in map (2) in Figure 9 below.



Figure 9: January 2025 temperature forecast

4. OUTLOOK FOR 11 - 20 JANUARY 2025

Normal to above normal conditions are expected mainly over northern and southern areas while normal to below normal conditions are expected mainly over central areas as shown in Figure 10. This is due to the indirect impacts of Tropical Cyclone DIKELEDI.



Figure 10: Dekadal rainfall outlook for Malawi for 11-20 January 2025