

Department of Climate Change and Meteorological Services

10-day Weather and Agrometeorological Bulletin



In support of national early warning systems

Period: 11 – 20 October 2012

Season: 2012/2013

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HIGHLIGHTS

- Generally dry conditions persisted over Malawi...
- Land preparation has been the main on-farm agricultural activity...
- Thunderstorms are expected to be experienced during 21–31 Oct 2012...

1.0 WEATHER SUMMARY AND IMPACTS

1.1 RAINFALL SITUATION

During the second ten days of October 2012, Malawi continued to be dry except for a few areas in the south that experienced pre-rains (Chizimalupsa) namely Chichiri in Blantyre, which reported 20.6 mm and Lujeri in Mulanje which reported 4.0 mm. Other stations in the south such as Bvumbwe, Chileka and Mimosa reported just a few drops of rains. But dry weather conditions prevailed over most parts of country.

1.2 VEGETATION CONDITION

Vegetation condition in the Southern African region, including Malawi indicate persistence of suppression of vegetation development over the larger parts. This can be attributed to the dry conditions that continued to affect the subregion. Refer to Figure 2 below:

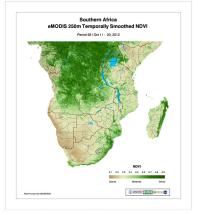


Figure 1: Vegetation Condition over Southern Africa for 11-20 October 2012

1.3 AIR TEMPERATURE

Temperatures were very hot in low altitude areas and warm to hot over highlands during the second dekad of October 2012. Mean maximum temperatures ranged from 27°C at Dedza to about 39°C at Ngabu while mean minimum temperatures ranged from around 13°C at Mzuzu to around 25°C at Ngabu and Salima. Refer to Table 1 for more details.

1.4 WIND SPEEDS

Mean wind speeds at a height of two metres above the ground level across the country were light to moderate, and ranged from 0.7 to 5.1 metres per second (m/s). The lowest and highest wind speeds were reported at Nkhata Bay and Chitipa (0.7 and 5.1 m/s, respectively).

1.5 RELATIVE HUMIDITY

During the period under review, air over Malawi continued to be generally dry. Daily average relative humidity values ranged from 29% at Makoka and Bolero to 48% at Nkhata Bay. Comparing with the previous ten days, air over Malawi was drier during the second dekad. Details are in the Table 1.

2. AGROMETEOROLOGICAL ASSESSMENT

The main on-farm activity during the period under review has continued to be land preparation in most parts of the country. This is in readiness for the first planting rains. Land preparation is expected to intensify as the start of the rains draws nearer.

3. PROSPECTS FOR 2011/12 RAINFALL SEASON

The summary of the 2012/2013 rainfall forecast is that "Normal total rainfall amounts are expected over most parts of Malawi during the 2012/2013 rainfall season". The rainfall forecast indicates that the greater part of the country will experience normal to above normal total rainfall amounts during the period from October 2012 to March 2013.

This forecast covers the rainfall season from October 2012 to March 2013 and is relevant only to seasonal time-scales and relatively large areas. It does not fully account for local and month to month variations in distribution of rainfall such as localised dry spells and flash floods.

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The seasonal forecast is issued to users as a planning tool. For day to day operations, users are advised to make use of the available short and medium range forecasts and the 10-day Rainfall and Agrometeorological bulletin.

4. OUTLOOK 21 – 31 OCTOBER 2012

Short and medium range forecasts indicate that the country will be affected by convergence ahead of pressure rises. This is expected to bring thunderstorms in some places. Therefore the country will experience thundery activities during the last ten days of October 2012.

TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR THE PERIOD 11 - 20 OCTOBER 2012 MAX MIN ABS ABS WIND RH (%) **EVAP STATION** TEMP (°C) **TEMP** MAX MIN (ºC) **SPEED** (mm) (ºC) (ºC) (m/s) KARONGA ADD Chitipa 31.9 19.3 34.6 17.2 5.1 39 N/A Karonga 34.6 42 21.7 36.1 20.1 2.0 N/A **MZUZU ADD** Bolero 33.3 21.3 36.4 18.3 N/A 34 N/A Mzuzu 29.6 13.7 31.8 10.2 1.8 43 N/A Mzimba 30.8 18.8 34.6 16.6 1.8 40 N/A 37.2 48 Nkhata Bay 35.4 16.3 14.5 0.7 N/A KASUNGU ADD Kasungu 33.0 19.2 36.1 16.5 3.2 36 N/A LILONGWE ADD KIA 33.7 39 30.7 16.6 14.0 2.2 12.9 Chitedze 32.0 17.2 34.7 14.9 1.5 41 N/A Dedza 27.2 17.7 30.5 15.6 1.7 45 N/A SALIMA ADD Salima 35.0 23.2 37.3 20.3 2.0 44 N/A Nkhotakota 33.4 22.0 35.0 19.5 2.2 42 N/A MACHINGA ADD Makoka 31.1 20.3 35.1 17.3 29 N/A 1.9 N/A Ntaja 34.8 21.2 37.6 19.9 2.6 36 22.7 38.4 41 N/A Mangochi 36.8 19.5 1.9 35.9 42 Monkey Bay 34.9 23.5 21.4 2.4 N/A **BLANTYRE ADD** Chileka 34.3 21.7 38.5 19.4 3.8 44 N/A 39 Chichiri 29.6 19.0 34.5 16.5 1.1 N/A Bvumbwe 34.2 14.9 48 N/A 30.6 16.9 2.4 Mimosa 35.7 18.7 39.8 16.8 1.7 43 8.7 SHIRE VALLEY ADD Ngabu 38.8 24.8 43.7 22.3 1.8 41 N/A

Glossary of some terms on this table

- RH = Relative Humidity
- Mean Temperature of the day = (Max of the day + Min of the same day)/2
- ABS Max (Min) = Absolute Maximum (minimum) is the highest (lowest) of maximum (minimum) temperatures observed for a given number of days (calendar month) of a specified period of months (years).
- To convert Meters Per Second (mps) to Kilometers per hour (Km/hr) = mpsx3.6