



REPUBLIC OF MALAWI

Department of Climate Change and Meteorological Services

10-day Weather and Agrometeorological Bulletin

In support of national early warning systems



Period: 21 – 31 October 2013

Season: 2013/2014

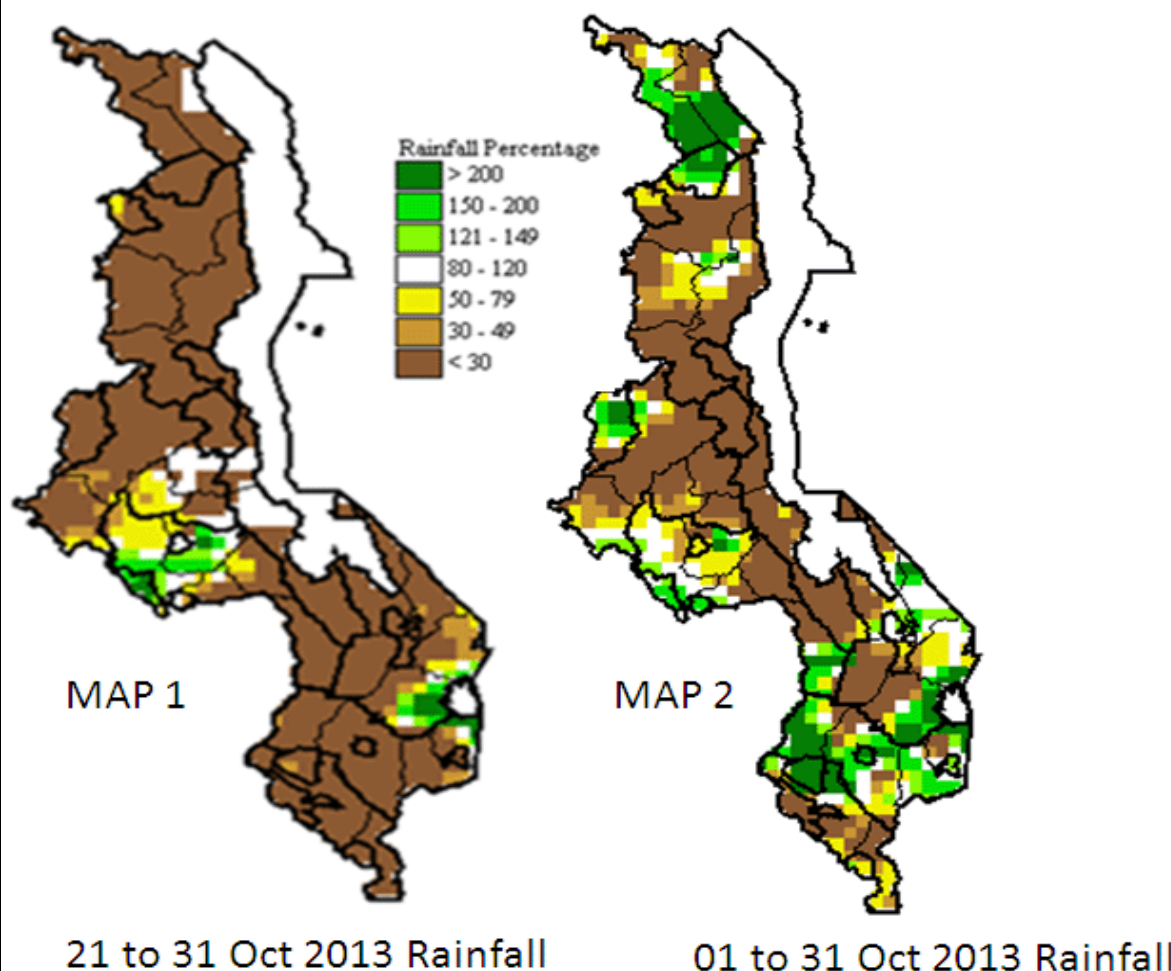
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HIGHLIGHTS

- Sporadic rainfall experienced over highlands; dry weather elsewhere...
- Land preparation and farm input mobilization were major activities...
- Sporadic rainfall to continue over Malawi during 01 to 10 November 2013...

Malawi Percentage of Average Rainfall



1.0 WEATHER SUMMARY AND IMPACTS

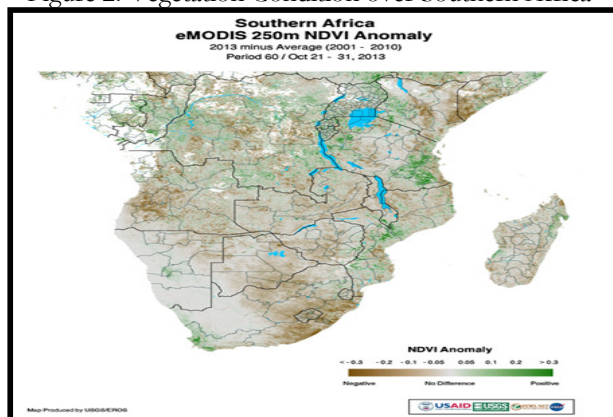
1.1 RAINFALL SITUATION

Dry weather had prevailed over most parts of Malawi during the last ten days of October 2013 except over a few highlands which had registered sporadic rainfall as a result of a little moisture that prevailed in some parts of the country. Most of the rains were received on 23 and 24th October 2013. Stations that reported significant rainfall amounts above 20mm included Mimosa Met (94mm) in Mulanje, Mulanje Agric had recorded 55mm, Makoka Met in Zomba had reported 26mm and Ntaja Met in Machinga had 21mm of rainfall. The rainfall that was reported at most of the stations was above the long term average for the period.

Map 2 indicates cumulative rainfall performance from 01 to 31 October 2013. Generally the map shows that during October most areas in Malawi have been very dry (brown colour) as rainfall was confined to a few sporadic areas (Green Colour)

1.2 VEGETATION CONDITION

Figure 2: Vegetation Condition over Southern Africa



The vegetation difference from long term average map for Southern Africa for the period 21 to 31 October 2013 shows that most parts of the region including Malawi are currently experiencing below average vegetation conditions (Figure 2). As such, pastures are likely to be in poor condition, particularly in areas where low rainfall was received during the 2012/2013 seasons. Poor rains have affected several parts of the region in the last two seasons, especially those in the southern half of the region.

1.3 AIR TEMPERATURE

Generally warm to hot temperatures had prevailed over most parts of Malawi during the last ten days of October 2013. Very hot temperatures were confined to lower shire where Ngabu Met in Chikwawa reported daily average maximum temperature of 37°C. Mean maximum temperatures ranged from 27°C at Chongoni

in Dedza to around 37°C at Ngabu in Chikwawa while mean minimum temperatures had ranged from 14.8°C at Bvumbwe in Thyolo to 23.3°C at Monkey Bay (Table 2). The highest (absolute) maximum temperature was still recorded at Ngabu (43.1°C) in Chikwawa while the lowest was 11.1°C recorded at Bvumbwe in Thyolo district. For more details see Table 1. Rainfall is expected to remain sporadic until when the main rain bearing systems are established over the country.

1.4 WIND SPEEDS

Mean wind speeds at a height of two metres above the ground level over Malawi had ranged from 0.8 to 5.8 metres per second. The highest mean daily wind speed was reported at Chitipa (5.8 m/s) while the lowest was observed at Nkhata Bay Met.. Refer to Table 1.

1.5 RELATIVE HUMIDITY

During the period 21 to 31 October 2013, air over Malawi remained generally dry. Daily average relative humidity values were as low as 38% at Chitipa Met to around 62% at Mimosa Met in Mulanje District in southern Malawi. The details are on the Table 1.

2. AGROMETEOROLOGICAL ASSESSMENT

The major on-farm agricultural activity in most parts of Malawi continued to be land preparation and procurement of farm inputs and equipment in readiness in readiness for the main planting rains. Most areas had remained dry during the period the last ten days of October 2013. The rainfall that has been received during the month of October 2013 has been sporadic and was mostly confined to highlands. These rains continued to encourage farmers to speed up land preparations in readiness for the main planting rain.

3. PROSPECTS FOR 2013/14 RAINFALL SEASON

The summary of the 2013/14 rainfall outlook is that **during 2013/2014 farming season, Malawi is likely to experience normal total rainfall amounts.** However, extreme weather events such as floods and dry spells are likely to occur particularly in prone areas. A detailed forecast can be accessed and downloaded **at** http://www.metmalawi.com/forecasts/SEASONAL_FORECAST_2013_2014_Press_release.pdf

4. OUTLOOK FOR 01 – 10 NOVEMBER 2013

Models for short and medium range forecasts indicate that the main rain bearing systems for Malawi will most likely not get established during the first ten days of November 2013. As a result sporadic rainfall is likely to persist over Malawi.

TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 21 TO 31 OCTOBER 2013

| STATION | MAX TEMP (°C) | MIN TEMP (°C) | ABS MAX (°C) | ABS MIN (°C) | WIND SPEED (m/s) | RH (%) | EVAP (mm) |
|-------------------------|------------------|------------------|--------------------|-----------------|------------------------|--------|-----------|
| KARONGA ADD | | | | | | | |
| Chitipa | 32.1 | 20.1 | 34.4 | 18.4 | 5.8 | 38 | N/A |
| Karonga | 33.7 | 21.7 | 36.0 | 21.0 | 1.9 | 45 | N/A |
| MZUZU ADD | | | | | | | |
| Bolero | 33.4 | 20.6 | 35.3 | 18.2 | N/A | 39 | N/A |
| Mzuzu | 28.3 | 14.7 | 30.6 | 11.6 | 1.6 | 56 | N/A |
| Mzimba | 31.5 | 19.4 | 34.0 | 18.3 | 1.9 | 42 | N/A |
| Nkhata Bay | 34.8 | 17.2 | 37.1 | 15.1 | 0.8 | 52 | N/A |
| KASUNGU ADD | | | | | | | |
| Kasungu | 33.0 | N/A | 35.0 | N/A | 1.4 | 42 | N/A |
| LILONGWE ADD | | | | | | | |
| KIA | 30.7 | 18.1 | 33.7 | 15.6 | 2.4 | 43 | 10.6 |
| Chitedze | 32.2 | 16.9 | 34.4 | 14.9 | 1.5 | 51 | N/A |
| Dedza | 27.0 | 16.5 | 28.8 | 13.9 | 3.3 | 56 | N/A |
| SALIMA ADD | | | | | | | |
| Salima | 34.0 | 22.9 | 36.5 | 21.0 | 2.6 | 47 | N/A |
| Nkhotakota | 33.0 | 22.8 | 35.5 | 20.4 | 2.7 | 46 | N/A |
| MACHINGA ADD | | | | | | | |
| Makoka | 30.3 | 17.7 | 34.6 | 15.3 | 1.6 | 60 | N/A |
| Ntaja | 33.5 | 20.8 | 36.1 | 17.8 | 3.2 | 53 | N/A |
| Mangochi | 35.3 | 22.5 | 37.2 | 20.5 | 2.4 | 47 | N/A |
| Monkey Bay | 34.0 | 23.3 | 35.9 | 16.4 | 3.0 | 45 | N/A |
| BLANTYRE ADD | | | | | | | |
| Chileka | 32.6 | 20.4 | 36.2 | 17.5 | 3.8 | 50 | N/A |
| Chichiri | 33.4 | 19.6 | 35.0 | 14.5 | 2.0 | 56 | N/A |
| Bvumbwe | 29.0 | 14.8 | 32.9 | 11.1 | 2.7 | 56 | N/A |
| Mimosa | 32.3 | 17.2 | 36.7 | 13.9 | 1.2 | 62 | 6.7 |
| SHIRE VALLEY ADD | | | | | | | |
| Ngabu | 37.0 | 22.9 | 43.1 | 19.6 | 3.8 | 48 | 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