

Ministry of Natural Resources, Energy and Mining Department of Climate Change and Meteorological Services

10-day Weather and Agrometeorological Bulletin

In support of national early warning systems and food security



Period: 11 – 20 November 2015

Season: 2015/2016

Issue No.5

Release date: 24 November 2015

HIGHLIGHTS

- Moderate to heavy rains experienced mostly over southern Malawi...
- Land preparation and procurement of farm inputs was in progress ...
- Good rainfall prospects expected from end of November 2015...

1.0 WEATHER SUMMARY

During the second ten days of November 2015, a convergence ahead of pressure rises brought strong winds and moderate to heavy rainfall over some parts of Malawi particularly on 16th November 2015. As a result substantial rainfall amounts were recorded in some parts of southern Malawi.

1.1 RAINFALL SITUATION

During the period 11 to 20 November 2015 particularly on 16th November moderate to heavy rains fell in southern Malawi. As a result most areas had recorded above average rainfall for the period. Due to poor drainage system flooding was reported in Limbe area in the City of Blantyre. Stations that had registered high rainfall intensities on 16th November 2015 were mostly from southern Malawi and included 60mm that was reported Illovo in Nchalo, Lujeri Tea Estate had recorded 55mm, 41mm was reported at Bvumbwe, 37mm was reported at Chingale in Zomba and over Nsanje Agric, Chileka Airport had recorded 35mm, Chizunga factory recorded about 30mm, Chichiri Met recorded 27mm, while at Mimosa in Mulanje 26mm was recorded. Sporadic rains most likely persist over Malawi until major rain bearing systems get established over the country. This is usually between mid-November over southern half of Malawi and in December elsewhere.

1.3 AIR TEMPERATURE

During the second ten days of November 2015, average daily maximum temperatures in Malawi were in excess of 28°C Average maximum temperatures had ranged from 28.4°C at Dedza Met to 39.6°C at Ngabu Met in Chikwawa while average minimum temperatures had ranged from 16.1°C at Dedza Met to 26.0°C at Ngabu Met. The highest maximum temperature was still recorded at Ngabu (43.2°C) in Chikwawa while the lowest temperature was 13.5°C recorded at Kamuzu International Airport in Lilongwe district. For more details see Table 1.

1.4 WIND SPEEDS

Average wind speeds measured at a height of two metres above the ground level across the country varied from 2.5Km

per hour at Nkhata Bay Met to 16.9km per hour at Dedza Met. More details are in Table 1.

1.5 RELATIVE HUMIDITY

During the second ten days of November 2015, air over Malawi was generally dry. Daily average relative humidity values collected from various stations in Malawi had ranged from 34% at Ntaja Met to 51% at DedzaMet. Details are on the Table 1.

1.6 SUNSHINE HOURS

During the period 11 to 20 November 2015 daily average hours of bright sunshine across Malawi were between 8.9 and 11.5 hours. Details are on the Table 1.

2. AGROMETEOROLOGICAL ASSESSMENT

Moderate to heavy rains that fell in some parts of southern Malawi continued to encourage farmers to speed up land preparation in readiness for the coming 2015/16 main rainfall season. A few farmers were prompted to start planting crops. Land preparation and procurement of farm inputs was in progress in most parts of Malawi.

3. PROSPECTS FOR 2015/16 RAINFALL SEASON

The rainfall outlook for the 2015/16 season is that most parts of Malawi are likely to receive normal to above normal rainfall amounts during the season. However, a few areas particularly in the Shire Valley are likely to receive low rainfall amounts towards the end of season.

4. OUTLOOK FOR 21 - 30 NOVEMBER 2015

Models for short to medium range weather forecasts show good rainfall prospects during the last ten days of November particularly from 28th November 2015.

TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 11 TO 20 NOVEMBER 2015

| ADD/ | MAX | MIN | ABS | ABS | WIND | RH | SUN | Eo | Et | RAD- |
|------------------|------|------|------|------|---------|----|-------|------|-----|---------|
| STATION | TEMP | TEMP | MAX | MIN | SPEED | % | SHINE | mm | mm | TION |
| | (°C) | (°C) | (°C) | (°C) | Km/hour | | HOURS | per | per | calcm-2 |
| | | | | | | | | day | day | p/day |
| KARONGA ADD | | | | | | | | | | |
| Chitipa | 32.9 | 20.9 | 34.7 | 19.9 | 12.6 | 48 | 10.0 | 9.1 | 7.3 | 11.0 |
| Karonga | 35.3 | 23.5 | 37.0 | 22.5 | 5.8 | 48 | 10.7 | 9.1 | 7.3 | 11.4 |
| MZUZU ADD | | | | | | | | | | |
| Bolero | 34.4 | 22.2 | 35.2 | 21.1 | 7.2 | 43 | 10.6 | 9.0 | 7.2 | 11.4 |
| Mzimba | 31.5 | 19.7 | 33.4 | 17.8 | 5.0 | 45 | 11.1 | 8.4 | 6.5 | 11.7 |
| Mzuzu | 30.2 | 16.1 | 31.1 | 14.4 | 5.4 | 49 | 11.6 | 8.1 | 6.3 | 12.1 |
| Nkhata Bay | 36.2 | 19.0 | 37.4 | 17.0 | 2.5 | 50 | 11.2 | 8.6 | 6.7 | 11.8 |
| KASUNGU ADD | | | | | | | | | | |
| Kasungu | 34.5 | 21.1 | 36.4 | 19.5 | 10.4 | 37 | 10.5 | 9.3 | 7.5 | 11.4 |
| LILONGWE ADD | | | | | | | | | | |
| Chitedze | 33.4 | 19.5 | 34.8 | 17.4 | 5.0 | 45 | 10.6 | 8.4 | 6.6 | 11.4 |
| Dedza | 28.4 | 18.1 | 29.7 | 17.8 | 16.9 | 51 | 9.8 | 8.6 | 7.0 | 10.9 |
| KIA | 31.7 | 18.7 | 32.7 | 13.5 | 7.6 | 40 | 10.5 | 8.4 | 6.7 | 11.3 |
| SALIMA ADD | | | | | | | | | | |
| Nkhota kota | 34.8 | 24.0 | 35.7 | 22.1 | 8.3 | 46 | 11.5 | 9.9 | 8.0 | 12.0 |
| Salima | 35.8 | 24.3 | 36.5 | 23.0 | 6.1 | 42 | 11.3 | 9.4 | 7.5 | 11.8 |
| MACHINGA ADD | | | | | | | | | | |
| Makoka | 32.6 | 20.2 | 34.8 | 17.4 | 5.4 | 47 | 10.2 | 8.3 | 6.6 | 11.2 |
| Mangochi | 37.9 | 24.1 | 39.1 | 22.0 | 4.0 | 41 | 9.4 | 8.8 | 7.1 | 10.6 |
| Monkey Bay | 35.9 | 25.3 | 36.9 | 22.2 | 9.4 | 44 | 10.5 | 9.8 | 8.0 | 11.3 |
| Ntaja | 35.9 | 22.8 | 37.8 | 20.4 | 9.0 | 34 | 8.9 | 9.0 | 7.3 | 10.3 |
| BLANTYRE ADD | | | | | | | | | | |
| Bvumbwe | 31.2 | 19.9 | 34.4 | 17.2 | 6.8 | 50 | 9.5 | 8.1 | 6.4 | 10.7 |
| Chichiri | 32.8 | 20.7 | 36.6 | 16.5 | 5.4 | 48 | 9.0 | 8.0 | 6.4 | 10.4 |
| Chileka | 35.0 | 21.6 | 38.3 | 18.8 | 15.1 | 43 | 9.1 | 9.6 | 7.9 | 10.4 |
| Mimosa | 35.0 | 19.9 | 38.3 | 15.5 | 5.8 | 45 | 9.0 | 8.2 | 6.6 | 10.4 |
| SHIRE VALLEY ADD | | | | | | | | | | |
| Ngabu | 39.6 | 26.0 | 43.2 | 21.3 | 9.4 | 42 | 11.5 | 10.8 | 8.8 | 12.0 |

Glossary of some terms on this table

Period: 11 – 20 November 2015

- Eo = Potential Evaporation, Et = Potential Evapotranspiration and 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