Government of Malawi
Ministry of Natural Resources, Energy and Mining

Malawi 10-day Weather and Agrometeorological Bulletin

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

Be wise be weather-wise
Department of Climate Change and Meteorological Services

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HIGHLIGHTS

- **Hot and dry weather covered most parts of Malawi…**
- **Land preparation was a main on-farm agricultural activity…**
- **Sporadic thunderstorms expected during the period 11 to 20 October 2017…**

1.0 WEATHER SUMMARY

During the period 01 to 10 October 2017, a local instability had caused sporadic rainfall over Malawi. As a result a few areas had registered pre-season rainfall that is locally known as Chidzimalupsya. Otherwise hot to very hot and dry weather conditions had prevailed over most areas in Malawi.

1.1 RAINFALL SITUATION

During the first ten days of October 2017 sporadic rainfall was reported over Malawi. However, the amounts were generally less than 10mm. Otherwise the reports indicate that Chelinda (Nyika) had received 7.5mm of rainfall. Sporadic pre-season rainfall (Chidzimalupsya) is likely to persist over Malawi during the month of October 2017 until major rain bearing systems get established over the country.

1.3 AIR TEMPERATURE

Hot to very hot temperatures were reported over Malawi during the period 1 to 10 October 2017. Mean maximum temperatures had ranged from 26.2°C at Dedza Met to 38.8°C at Ngabu Met in Chikwawa district while mean minimum temperatures had ranged from 13.5°C at Mzuzu Airport in Mzimba to 24.1°C at Ngabu in Chikwawa. The highest maximum temperature was recorded at Ngabu (40.8°C) in Chikwawa while the lowest temperature was 12.1°C recorded at Mzuzu Airport in Mzimba district. For more details see Table 1.

1.4 WIND SPEEDS

Mean wind speeds measured at a height of two metres above the ground level across Malawi had ranged from 2.5Km per hour at Nkhata Bay Met to 18.0km per hour at Chitipa Met. More details are in Table 1.

1.5 RELATIVE HUMIDITY

During the first ten days of October 2017, air over Malawi was still generally dry. Daily average relative humidity values ranged from 40% at Bolero Met to 55% at Mkondezi in Nkhata Bay. Details are on the Table 1.

1.6 SUNSHINE HOURS

During the period 1 to 10 October 2017 durations of mean bright sunshine hours across Malawi had ranged from 6.9 to 11.5 hours per day. Details are on the Table 1.

2. AGROMETEOROLOGICAL ASSESSMENT

During the first ten days of October 2017 the main on-farm agricultural activity in Malawi has been land preparation in readiness for the coming 2017/18 main rainfall season.

3. PROSPECTS FOR 2017/18 RAINFALL SEASON

The Sea Surface Temperatures which drive the rainfall patterns of the world including Malawi are indicating that Neutral El Niño Southern Oscillation (ENSO) conditions have developed over the tropical Pacific Ocean and climate models are indicating that these neutral conditions are likely to persist during the 2017/2018 rainfall season. Based on neutral ENSO conditions, the rainfall forecast for the 2017/18 season in Malawi is that during the period October 2017 to March 2018 a greater part of the country will experience normal total rainfall amounts.

This means that there is a high chance for average rainfall than there is for reduced or excess rainfall. Thus priority planning for the 2017/18 season in Malawi should be based on expectations of average conditions depending on the climate of the area. However, episodes of extreme weather events such as prolonged dry spells and floods may occur in some places associated with the ENSO impacts and local characteristics.

4. OUTLOOK FOR 11 – 20 OCTOBER 2017

Models for short and medium range forecasts indicate that local instability is likely to enhance convective activities and strong winds particularly over central Malawi within the first half of the period 11 to 20 October 2017.

All inquiries should be addressed to: The Director of Climate Change and Meteorological Services, P.O. Box 1808, Blantyre, MALAWI
Tel: (265) 1 822 014/106 Fax: (265) 1 822 215 E-mail: metdept@metmalawi.com Homepage: www.metmalawi.com

TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 01 TO 10 OCTOBER 2017

ADD/ STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED Km/hour	RH %	SUN SHINE HOURS	Eo mm per day	Et mm per day	RAD-TION calcm^{-2} p/day
KARONGA ADD										
Chitipa	30.6	18.6	32.5	17.3	18.0	44	9.7	9.1	7.4	10.7
Karonga	33.4	21.5	34.8	20.5	7.2	47	10.5	8.7	7.0	11.2
MZUZU ADD										
Bolero	32.1	20.2	34.3	17.0	5.4	40	10.4	8.0	6.3	11.0
Mzimba	30.0	18.8	32.6	17.8	8.3	45	10.2	8.0	6.3	10.9
Mzuzu	28.4	13.5	29.0	12.1	8.3	52	10.5	6.7	5.1	11.1
Nkhata Bay	33.7	17.2	36.0	16.4	2.5	55	10.4	7.6	6.0	11.0
KASUNGU ADD										
Kasungu	30.5	18.3	32.0	15.5	10.4	44	10.2	8.2	6.6	10.9
LILONGWE ADD										
Chitedze	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dedza	26.2	15.9	28.4	14.3	10.8	54	10.0	8.4	6.7	10.7
KIA	29.4	17.3	31.3	14.6	7.6	45	10.7	7.8	6.1	11.2
SALIMA ADD										
Nkhota kota	32.7	21.5	34.0	20.3	4.0	49	10.3	8.2	6.5	11.0
Salima	33.5	22.4	34.4	21.1	6.1	46	10.5	8.5	6.8	11.1
Makoka	31.1	18.1	33.4	14.0	4.3	52	9.3	7.3	5.7	10.3
Mangochi	35.0	22.6	36.5	21.5	2.9	47	10.5	8.3	6.6	11.1
Monkey Bay	33.3	23.9	34.1	22.8	8.3	44	10.5	9.0	7.2	11.1
Ntaja	33.5	20.7	35.2	18.4	9.4	44	8.9	8.3	6.7	10.0
BLANTYRE ADD										
Bvumbwe	29.6	16.6	32.1	12.6	6.5	50	10.0	7.4	5.8	10.7
Chichiri	31.1	18.9	34.4	14.6	5.4	47	8.5	7.2	5.8	9.7
Chileka	33.3	21.2	35.5	16.1	13.7	41	8.5	8.7	7.2	9.7
Mimosa	32.8	18.4	35.5	15.7	5.8	42	6.9	7.0	5.7	8.7
SHIRE VALLEY ADD										
Ngabu	38.8	24.1	40.8	22.4	5.8	47	11.5	9.6	7.8	11.6

Glossary of some terms on this table

- Eo = Potential Evapotranspiration, Et = Actual Evapotranspiration and RH = Mean 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
- N/A – means data was not available at the time of reporting