

Department of Climate Change and Meteorological Services

# **10-day Weather and Agrometeorological Bulletin**

In support of national early warning systems

Period: 01 – 10 October 2013

Season: 2013/2014 Release date: 11 October 2013 Issue No.1

# HIGHLIGHTS

- Pre-rains were experienced in some parts of Malawi...
- Major on-farm agricultural activity has been land preparation...
- Malawi to continue receiving sporadic pre-rains during 11-20 October 2013...

# 1.0 WEATHER SUMMARY AND IMPACTS

# 1.1 RAINFALL SITUATION

During the first ten days of October 2013, a convergence ahead of pressure rises brought pre-rains that are locally known as Chizimalupsya to some parts of Malawi, especially over southern and northern areas. Most of the rains were received during the first five days. Stations that recorded rainfall amounts of more than 20 mm included Chileka Airport (43.5mm), Chichiri Met (40.8mm) in Blantyre and Mimosa Met (22.2mm) in Mulanje in the south and Mzuzu Airport Met (25.7mm) in Mzimba in the north. The rainfall received at most of these stations were much above 125% of the expected amounts and were recorded in two to three days while dry conditions had prevailed over most parts of Malawi.

#### **1.3 AIR TEMPERATURE**

Generally warm to hot temperatures prevailed over Malawi during the period 1 to 10 October 2013. Mean maximum temperatures ranged from 22.5°C at Chongoni in Dedza to about 32.1°C at Ngabu while mean minimum temperatures ranged from around 12.5 at Bvumbwe in Thyolo to 21.8°C at Monkey Bay and Salima (Table 2). The highest maximum temperature was recorded at Ngabu (35.6°C) in Chikwawa while the lowest was 9.4°C recorded at Bvumbwe in Thyolo district. For more details see Table 1.

#### 1.4 WIND SPEEDS

Mean wind speeds at a height of two metres above the ground level across the country ranged from 0.7 to 6.1 metres per second. The highest wind speeds were reported at Chitipa (6.1 m/s). Refer to Table 1.

### **1.5 RELATIVE HUMIDITY**

During the first ten days of October 2013, air over Malawi was still relatively dry. Daily average relative humidity values ranged from 49% at Kasungu Met to 74% at Mzuzu Airport Met. Details are on the Table 1.

#### 2. AGROMETEOROLOGICAL ASSESSMENT

The major on-farm agricultural activity in most parts of Malawi was land preparation in readiness for the main planting rains. The rainfall that was received during the first ten days of October had encouraged farmers to speed up land preparations. In areas where significant rainfall amounts have been received particularly in the south, farmers have started planting crops but on very small scale.

#### 3. PROSPECTS FOR 2013/14 RAINFALL SEASON

The summary of the 2013/14 rainfall outlook is that during 2013/2014 rainfall season, Malawi is likely to experience normal total rainfall amounts. However, extreme weather events are likely to occur and that could result in floods and dry spells particularly in prone areas.

4. OUTLOOK FOR 11 – 20 OCTOBER 2013

Models for short and medium range forecasts indicate that Malawi is likely to continue experiencing sporadic pre-rains during the second ten days of October 2013

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: <u>metdept@metmalawi.com</u> Homepage: www.metmalawi.com

#### TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 01 TO 10 OCTOBER 2013

STATION	MAX TEMP (ºC)	MIN TEMP (ºC)	ABS MAX (≌C)	ABS MIN (ºC)	WIND SPEED (m/s)	RH (%)	EVAP (mm)								
								KARONGA ADD							
								Chitipa	26.7	17.9	30.1	15.7	6.1	54	N/A
Karonga	31.7	20.2	34.5	18.9	3.1	51	N/A								
MZUZU ADD															
Bolero	27.7	18.4	31.2	15.0	N/A	58	N/A								
Mzuzu	29.9	13.8	26.9	11.7	1.6	74	N/A								
Mzimba	26.4	16.8	29.7	13.8	2.2	55	N/A								
Nkhata Bay	29.0	17.5	33.0	15.4	0.7	70	N/A								
KASUNGU ADD				1		1									
Kasungu	28.0	N/A	30.9	N/A	3.2	49	N/A								
LILONGWE ADD				1											
KIA	26.0	14.4	29.0	10.0	2.3	57	3.8								
Chitedze	27.1	14.5	30.2	101	1.5	58	N/A								
Dedza	22.5	13.2	25.3	8.8	2.7	66	N/A								
SALIMA ADD				1											
Salima	30.0	21.8	33.1	19.5	3.0	55	N/A								
Nkhotakota	28.3	20.4	30.5	18.5	2.2	57	N/A								
MACHINGA ADD				1											
Makoka	26.2	16.0	30.1	12.8	1.1	66	N/A								
Ntaja	29.0	18.2	32.6	15.1	2.6	60	N/A								
Mangochi	30.8	20.1	34.4	16.5	2.0	57	N/A								
Monkey Bay	30.1	21.8	32.9	18.4	2.7	54	N/A								
BLANTYRE ADD		•													
Chileka	27.5	17.1	31.5	13.9	3.4	62	N/A								
Chichiri	25.7	15.0	34.6	11.5	1.8	57	N/A								
Bvumbwe	24.3	12.5	31.6	9.4	2.6	70	N/A								
Mimosa	28.1	16.3	31.6	13.2	1.3	66	N/A								
SHIRE VALLEY ADD							•								
Ngabu	32.1	20.8	35.6	17.5	3.4	61	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