

# HIGHLIGHTS

- Mostly dry conditions prevailed during the period 01 to 10 April 2015...
- Crops were mostly at drying and harvesting stages ...
- Mostly dry weather expected over Malawi during 11 to 20 April 2015...



# Rainfall Maps for 01 to 10 April 2015

# **1.0 WEATHER SUMMARY**

During the period 01 to 10 April 2015, easterly waves were not very active over Malawi. As a result most places were very dry and significant rainfall was only confined to northern Malawi and a few highlands in the south and central Malawi.

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#### **1.1 RAINFALL SITUATION**

During the first ten days of April 2015, the greater part of Malawi recorded below average rainfall amounts (yellow and brown colours in Map 1) except for a few places mainly over northern Malawi and a few highlands in the south and central Malawi. Significant rainfall of at least 50mm was recorded at selected stations from northern Malawi and southern highlands. Such stations in the north included Lupembe Agric which recorde 51mm, Vinthukutu Agric had 88mm, Chintheche Agric had 195mm, Euthin Agric 51mm, Mzuzu Met 95mm, and Nkhata Bay Met 340mm while from the south Mimosa Met had accumulated 60mm, Mulanje Agric 73mm, Satemwa 50mm and Thyolo Met 65mm. Otherwise generally most areas in Malawi registered light rainfall amounts ranging from 0 to 49mm. More details are in Table 1 and Map 1.

Cumulative rainfall performance over the country since October 2014 up to 10 April 2015 shows that most areas in southern Malawi have received normal to above normal rainfall amounts while many areas in the centre and north have had normal to below normal cumulative rainfall amounts. For more details refer to Table 1 and Map 2.

#### **1.2 AIR TEMPERATURE**

Warm to temperatures were maintained over Malawi during the first ten days of April 2015. Mean daily maximum temperatures ranged from 23°C at Dedza to 31°C at Ngabu. The highest absolute maximum temperature for the period was still observed at Ngabu (34.7°C) while the lowest absolute minimum temperature was recorded at Dedza (10.9°C) For more details see Table 2.

#### **1.3 WIND SPEEDS**

Mean wind speeds at a height of two metres above the ground level had ranged from 2.2 Kilometres per hour at Chitedze to 10.1 Kilometres per hour at Chileka. For more details refer to Table 2.

# **1.4 RELATIVE HUMIDITY**

During the first ten days of April 2015, the amounts of moisture in the atmosphere had remained fairly good. The mean daily relative humidity values ranged from 51% at Mimosa to 87% at Nkhata Bay. More details are in Table 2. High relative humidity values promote incidences fungal diseases.

# **1.5 SUNSHINE HOURS**

During the first ten days of April 2015, Malawi had experienced a slight increase in hours of bright sunshine. This time around the daily average of sunshine hours had increased from six hours to around eight hours. Details are on the Table 2.

#### **1.6 VEGETATION CONDITION**





#### Figure 2: Vegetation Condition over Malawi

The vegetation condition map for Malawi up to 10 April 2015 showed that the country has achieved average greenness despite the late onset of the rains and prolonged dry spells in March (Figure 2). This implies that natural pastures were in good condition.

#### 2.0 AGROMETEOROLOGICAL ASSESSMENT AND IMPACTS

During the first ten days of April 2015 dry weather had returned to most areas as indicated by below average cumulative rainfall amounts. Below average rainfall amounts and dry conditions were experienced in many areas. The dry weather had facilitated drying and harvesting of matured crops. The wet weather that was confined to a few places had supported growth and development of root and tuber crops. The rains had also increased prospects for residual moisture and irrigated farming. On the negative note the wet weather had hampered harvesting and drying of matured crops.

Maize crop was reported wilting and some drying prematurely, raising fears of crop production failure and household food security problems in the 2015/16 consumption season. The worst affected crops include the late maturing crop varieties that were planted during late December last year. The bulk of this crop had not yet reached maturity stage and required more moisture to mature properly. Due to March dryness results from the Agro-meteorological maize yield forecasting model suggest a national maize production estimate of **3.4 million MT**, but this figure is expected to be revised down due to negative impacts of the flooding, waterlogging, leaching and early tailing off of the rainfall season.

#### 3. OUTLOOK FOR 11TO 20 APRIL2015

During the period 11 to 20 April 2015, a series of high pressure systems passing through south coast of the Republic of South Africa are expected to occasionally cause an influx of cool and moist air into Malawi. Therefore, generally light rainfall is expected over Malawi mainly over the highlands and along the lakeshore.

#### 4 UPDATED FORECAST FOR 2014/15 RAINFALL SEASON

During April and May 2015 the rainfall outlook for Malawi shows increased chances of normal to below normal rainfall amounts over most parts of Malawi.. Season: 2014/15

# TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR 01 TO 10 APRIL 2015

ADD	RAINFALL STATION	ACTUAL DEKADAL TOTAL	DEKADAL NORMAL (EXPECTED)	ACTUAL TOTAL AS PERCENTAGE	ACTUAL TOTAL RAINFALL TODATE	NORMAL (EXPECTED) RAINFALL	ACTUAL TODATE AS PERCENTAGE	RAINY DAYS
		RAINFALL (mm)	RAINFALL (mm)	OF NORMAL (EXPECTED)	(mm)	TODATE (mm)	OF NORMAL (EXPECTED)	≥ 0.3 mm
KARONGA	Baka Res. Stn.	36.1	140.5	26	531.2	1200.4	44	5
	Chitipa Met	32.3	37.9	85	668.6	918.4	73	4
	Karonga Met.	42.9	88.0	49	511.5	895.7	57	7
	Lupembe	51.0	63.1	81	687	773.9	89	5
	Vinthukutu Agric	87.6	112.7	78	653.9	993.7	66	7
MZUZU	Bolero Met	24.1	18.2	132	544.6	614.1	89	1
	Bwengu Agric.	24.9	21.7	115	565.3	733.9	77	6
	Chikangawa forest	0.0	70.3	0	1222.3	1039.0	118	0
	Chintheche Agric	195.0	146.7	133	1039.7	1472.3	71	4
	Ekwendeni Agric.	10.4	42.2	25	457.9	779.8	59	2
	Euthini Agric.	51.4	22.6	227	425.4	748.1	57	2
	Mbawa Res. Stn	10.9	16.5	66	682.3	781.6	87	2
	Mzimba Met	5.6	23.5	24	571.3	862.3	66	3
	Mzuzu Met.	95.3	89.2	107	864.3	965.4	90	7
	NkhataBay Met.	339.5	133.0	255	1244.7	1215.9	102	9
	Rumphi Boma	8.0	30.0	27	501.2	706.8	71	1
	Zombwe Agric	8.3	36.0	23	770.5	716.9	107	2
KASUNGU	Dowa Agric	22.2	24.5	91	503.2	859.9	59	1
	Kasungu Met	16.6	17.6	94	778.9	760.8	102	2
	Madisi Agric	27.0	16.3	166	487.8	812.7	60	1
	Mchinji Boma	33.7	29.3	115	784.1	977.9	80	3
LILONGWE	Chileka Namitete	3.5	27.9	13	432.4	889.5	49	1
	Chitedze Met.	11.8	29.3	40	560.4	859.0	65	2
	Dedza Met	6.4	25.6	25	802.9	904.8	89	3
	K.I.A Met	39.5	19.6	202	637.3	830.4	77	4
	Mlangeni Njolomole	4.3	24.3	18	624.7	939.5	66	1
	Nathenje Agric	33.0	44.0	75	611.3	840.3	73	2
	Dedza RTC	21.0	22.5	93	767.0	967.5	79	2
SALIMA	Dwangwa	14.6	92.8	16	850.3	1228.9	69	5
	Lifuwu	33.2	46.3	72	896.8	1175.2	76	3
	Salima Met	1.4	44.8	3	703.5	1168.2	60	1
MACHINGA	Mpilipili (Makanjila)	0.0	18.5	0	694.6	864.0	80	0
	Makoka Met	2.1	30.7	7	1073.7	935.0	115	1
	Mangochi Met.	10.0	20.2	50	1069.6	683.5	156	3
	Monkey Bay Met.	0.0	6.5	0	917.5	558.1	164	0
	Namiasi Agric	2.3	4.6	50	779.9	737.6	106	1
	Ntaja Met.	10.7	31.2	34	948.5	858.4	110	3
	Phalula Agric	23.5	14.3	164	831.6	799.1	104	1
	Zomba Agric	6.2	42.0	15	1484.7	1153.8	129	3
BLANTYRE	Bvumbwe Met.	20.8	30.7	68	1255.0	1046.8	120	5
	Chichiri Met.	13.6	29.0	47	1429.3	1057.5	135	5
	Chileka Airport	0.0	20.0	0	877.3	846.9	104	0
	Chiradzulu Agric	7.6	22.4	34	851.8	941.9	90	2
	Mimosa Met.	60.3	63.8	95	2101.6	1331.8	158	5
	Mpemba Agric	10.7	32.1	33	1751.0	1072.6	163	1
	Mulanje Boma	73.1	82.2	89	2331.9	1606.3	145	5
	Mwanza Boma	29.0	34.9	83	719.3	971.8	74	4
	Naminjiwa Agric	13.7	18.6	74	1227.0	928.7	132	2
	Neno Agric	2.5	36.3	7	1446.3	1047.4	138	1
	Satemwa	49.9	46.5	107	1292.0	1024.9	126	5
	Thyolo Boma	34.1	42.6	80	610.3	1091.4	56	3
	Thyolo Met	65.4	30.7	213	1280.3	1137.8	113	5
SHIRE VALLEY	Chikwawa Boma	10.0	21.2	47	930.7	735.2	127	3
	Nchalo Sucoma	5.7	18.9	30	1057.8	624.3	169	2
	Ngabu Met.	0.8	17.9	4	993.9	722.7	138	2
	Nsanje Boma	22.8	21.7	105	860.5	1022.2	84	2

Season: 2014/15

# TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR THE PERIOD 01 TO 10 APRIL 2015

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- <sup>2</sup> p/day		
KARONGA ADD												
Chitipa	26.5	17.8	28.3	16.6	7.6	77	6.2	6.1	4.8	8.6		
Karonga	29.3	20.7	31.5	20.0	4.3	76	6.0	6.3	5.0	8.5		
Bolero	29.4	17.1	30.9	15.7	5.4	72	5.9	5.7	4.5	7.8		
Mzimba	27.4	16.3	29.0	14.6	4.0	73	5.6	5.3	4.2	7.7		
Mzuzu	24.8	17.3	26.9	14.9	5.0	85	5.5	5.0	3.9	7.6		
Nkhata Bay	28.5	20.8	31.1	19.6	2.5	87	3.7	4.7	3.7	6.5		
KASUNGU ADD												
Kasungu	28.2	16.5	31.0	15.2	3.2	73	5.9	5.5	4.3	7.9		
LILONGWE ADD												
Chitedze	27.2	14.0	30.0	15.5	2.2	70	5.9	5.2	4.1	8.0		
Dedza	23.3	13.4	26.0	10.9	5.4	76	5.8	5.0	3.9	7.9		
KIA	25.9	16.2	28.4	13.4	5.4	75	5.9	5.4	4.2	8.0		
SALIMA ADD												
Salima	29.4	21.1	32.0	19.3	9.0	58	9.4	5.1	3.9	10.2		
MACHINGA ADD										-		
Makoka	27.3	16.4	30.0	13.4	5.4	75	6.3	5.7	4.5	8.3		
Mangochi	30.3	22.0	33.0	18.0	5.4	72	8.8	7.3	5.8	9.9		
Monkey Bay	30.4	21.7	32.4	17.7	7.6	66	8.7	7.4	5.9	9.8		
Ntaja	28.4	20.0	32.4	18.5	5.8	70	8.1	6.9	5.5	9.8		
BLANTYRE ADD												
Bvumbwe	25.9	15.8	27.6	14.2	6.8	76	5.9	5.5	4.3	8.1		
Chichiri	24.2	16.8	28.2	15.5	6.1	78	5.8	5.3	4.2	8.0		
Chileka	27.2	18.7	31.1	16.5	10.1	69	7.1	6.5	5.2	8.9		
Mimosa	27.1	17.6	31.7	14.4	3.6	51	5.5	5.8	4.6	7.8		
SHIRE VALLEY ADD												
Ngabu	31.3	21.0	34.7	19.6	6.1	72	8.0	7.1	5.7	9.5		

Glossary of some terms on this table

• 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