REPUBLIC OF MALAWI

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

Be wise be weather-wise

Period: 21 – 30 April 2015 Season: 2014/2015 Issue No.21

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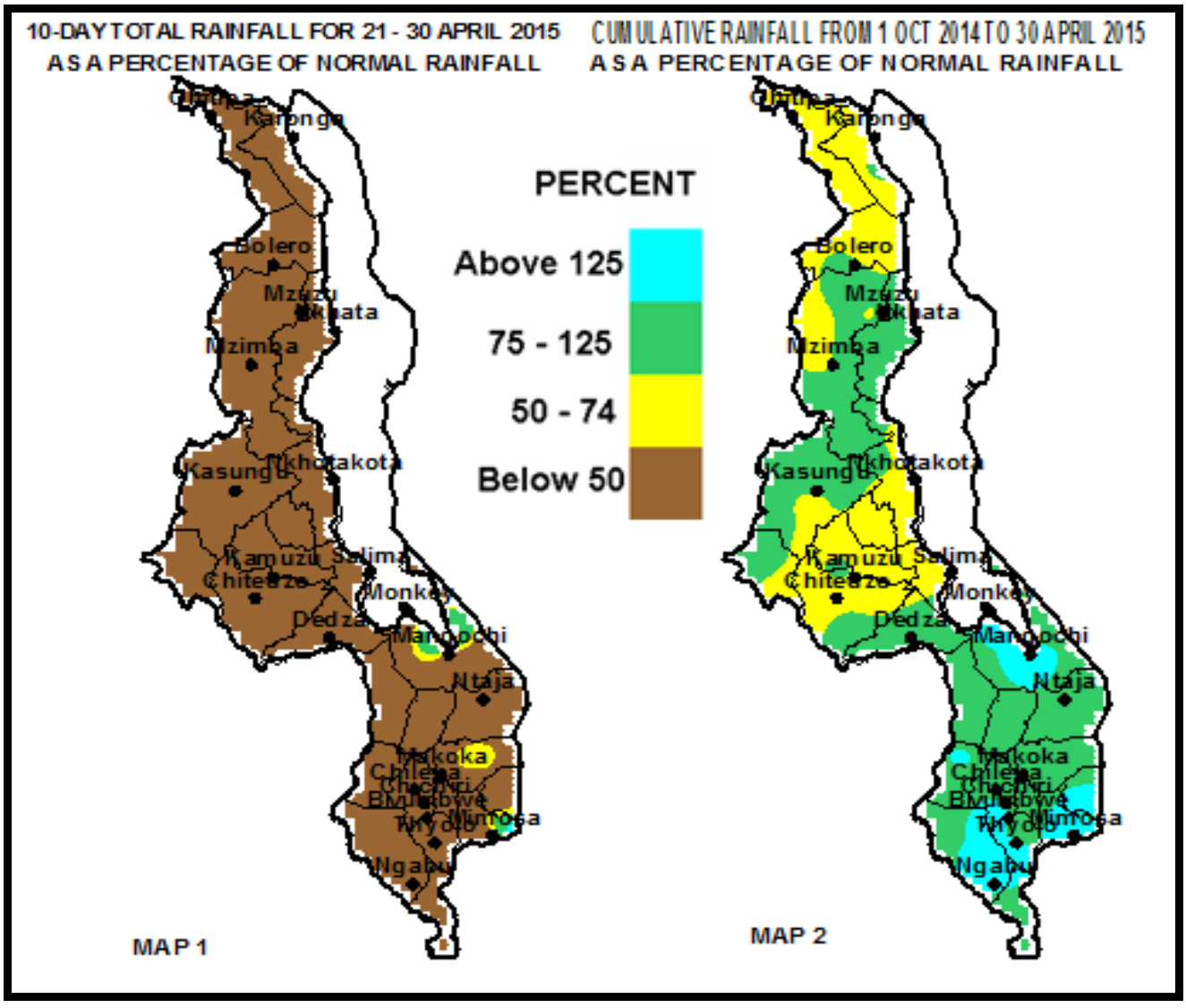
HIGHLIGHTS

- **Dry weather prevailed over Malawi during the last ten days of April 2013…**
- **Average seasonal rainfall amounts received in during 2014/15 season …**
- **Occasional generally light rainfall expected in May and June 2015...**



Rainfall Maps for 21 to 30 April 2015

1.0 WEATHER SUMMARY

During the last ten days of April 2015, the main rain belt was over East Africa. As a result below average cumulative rainfall and dry weather prevailed over most parts of Malawi except at very few places.

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1.1 RAINFALL SITUATION

During the period 21 to 30 April 2015, most areas in Malawi had recorded below average rainfall amounts and dry conditions except for very few places. Significant rainfall amount in excess of 100mm was only recorded over southern highlands at Lujeri Tea estate (182mm) in Mulanje district. Otherwise many areas in Malawi had experienced dry weather and light rainfall amounts.More details are in Table 1 and Map 1.

Cumulative rainfall performance from October 2014 up to 30 April, 2015 have shown that during the 2014/15 rainfall season most parts of Malawi have received their seasonal rainfall amounts (green colour on Map 2) with poor spatial distribution and pockets of seasonal rainfall deficits. Notable areas with rainfall deficits (yellow colour on map 2) include central and northern Malawi. For more details refer to Table 1 and Map 2.

1.2 AIR TEMPERATURE

During the last ten days of April 2015, Malawi had experienced warm to hot temperatures during the day and cool to mild temperatures during the night and early morning. Reported mean daily maximum temperatures ranged from 24°C over highlands such as at Dedza and Kamuzu International Airport to 32°C over low altitude areas such as Ngabu in Chikwawa. The highest absolute maximum temperaure was registered at Ngabu (34°C) while the lowest absolute minimum temperature was around 9°C, reported at Kasungu. More details are in Table 2.

1.3 WIND SPEEDS

Mean daily wind speed at a height of two meters above the ground, were generally light during the last ten days of April 2015. The highest wind speed was reported at Chileka (11.5Km/hr) while the lowest wind speed was recorded at Chitedze (1.8Km/hr). More details are in Table 2.

1.4 RELATIVE HUMIDITY

Mean Relative Humidity values continued to decline over most areas as dry weather crept in. Mean daily relative humidity values had ranged from 55% to 79%. The lowest mean relative humidity value was reported at Bvumbwe in Thyolo district while the highest relative humidity was registered at Mzuzu Airport. See more details in Table 2. High relative humidity values promote incidences fungal diseases.

1.5 SUNSHINE HOURS

During the last ten days of April 2015, Malawi had experienced a pick-up in hours of bright sunshine. Most areas had recorded average sunshine hours of more than eight hours. Details are on the Table 2.

1.6 VEGETATION CONDITION

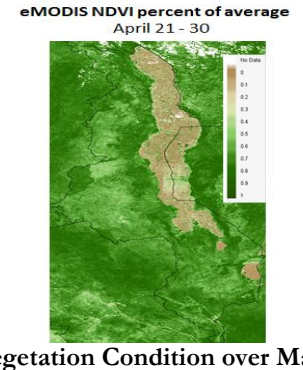

Figure 2: Vegetation Condition over Malawi

The vegetation condition map for Malawi for the period 21 to 30 April 2015 showed that the country has achieved average greenness despite prolonged dry spells in March and April 2015 (Figure 2). This implies that natural pastures were in good condition.

2.0 AGROMETEOROLOGICAL ASSESSMENT AND IMPACTS

Dry conditions that prevailed over most parts of the country during the last ten days of April 2015 continued to facilitate harvesting and drying of matured crops. Harvesting of maize which is the staple food crop for most Malawians was in progress throughout the country. This has improved food security at household level as most household had food from their own production. However, yield and production this season have been compromised by delayed onset of the main planting rains, floods and excessive rains between January and early February 2015, widespread prolonged dry spells in March and April 2015 and early cessation of the main rains. The widespread dryness has negatively impacted on crops yield and production. The maize yield losses largely due to dry spells in March and April 2015 have been estimated to be between 23 and 39% giving a national average of 33% while production losses on average have been estimated at 28%. The national maize production from the crop yield forecasting model is estimated at **2,888,269MTs**. Maize production this season has been compromised by delayed onset of planting rains, floods and excessive rains in January and early February 2015, widespread prolonged dry spells in March and April 2015 and early cessation of the main rainfall season.

This is the last bulletin for 2014/15 growing season

3. OUTLOOK FOR MAY AND JUNE 2015

During the months of May and June 2015, a series of high pressure systems are expected to periodically induce cool and moist air from the Indian Ocean into Malawi. Therefore, occasional and generally light rainfall is expected particularly over highlands and along the Lakeshore.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR 21 TO 30 APRIL 2015

ADD	RAINFALL STATION	ACTUAL DEKADAL TOTAL RAINFALL (mm)	DEKADAL NORMAL (EXPECTED) RAINFALL (mm)	ACTUAL TOTAL AS PERCENTAGE OF NORMAL (EXPECTED) RAINFALL	ACTUAL TOTAL RAINFALL TODATE (mm)	NORMAL (EXPECTED) RAINFALL TODATE (mm)	ACTUAL TODATE AS PERCENTAGE OF NORMAL (EXPECTED) RAINFALL	RAINY DAYS ≥ 0.3 mm
KARONGA	Baka Res. Stn.	0.0	41.0	0	600.0	1317.8	46	0
	Chitipa Met	0.0	4.2	0	681.7	940.0	73	0
	Karonga Met.	0.0	25.9	0	562.7	980.8	57	0
	Lupembe	0.0	12.7	0	737.5	822.6	90	0
	Vinthukutu Agric	13.7	53.3	26	775.9	1120.5	69	2
MZUZU	Bolero Met	2.7	4.2	64	551.9	629.1	88	3
	Bwengu Agric.	3.4	7.4	46	571.7	758.8	75	3
	Chikangawa forest	0.0	22.0	0	1222.3	1090.5	112	0
	Chintheche Agric	20.8	82.6	25	1204.9	1683.4	72	2
	Ekwendeni Agric.	0.0	9.4	0	457.9	807.2	57	0
	Euthini Agric.	0.0	14.0	0	435.8	775.4	56	0
	Mbawa Res. Stn	0.0	7.3	0	725.3	801.2	91	0
	Mzimba Met	0.0	9.1	0	572.5	885.3	65	0
	Mzuzu Met.	28.5	43.6	65	915.4	1074.6	85	5
	NkhataBay Met.	55.5	81.9	68	1401.7	1393.8	101	4
	Rumphi Boma	0.0	8.3	0	505.9	728.3	69	0
	Zombwe Agric	0.0	8.5	0	768.5	744.4	103	0
KASUNGU	Dowa Agric	0.0	2.8	0	507.9	872.3	58	0
	Kaluluma DTC	0.0	3.7	0	407.1	809.8	50	0
	Kasungu Met	0.0	4.0	0	782.6	770.4	102	0
	Lisasadzi	0.0	6.4	0	646.8	811.9	80	0
	Malomo Agric	0.0	14.9	0	570.0	825.8	69	0
	Madisi Agric	0.0	3.6	0	487.8	827.9	59	0
	Mchinji Boma	0.0	10.2	0	784.1	1003.4	78	0
	Mkanda Met	0.0	7.1	0	760.8	863.8	88	0
	Mponela Agric	0.0	2.6	0	624.7	786.9	79	0
	Mwimba Research	0.0	2.2	0	509.3	865.2	59	0
	Ntchisi Boma	0.0	12.1	0	636.9	1225.9	52	0
LILONGWE	Chileka Namitete	0.0	13.9	0	508.0	921.2	55	0
	Chitedze Met.	0.0	6.5	0	578.3	874.5	66	0
	Dedza Met	0.0	8.6	0	814.7	923.7	88	0
	Dzonzi Forest	0.0	5.4	0	858.0	978.8	88	0
	K.I.A Met	0.0	6.1	0	644.8	838.1	77	0
	Kasiya Agric	0.0	12.6	0	714.6	948.1	75	0
	Mlangeni Njolomole	0.0	4.7	0	644.0	958.2	67	0
	Mtakataka Airwing	0.0	2.4	0	716.5	806.3	89	0
	Nathenje Agric	0.0	13.2	0	624.8	865.0	72	0
	Ntcheu - Nkhande	0.0	7.2	0	842.8	1035.0	81	0
	Dedza RTC	0.0	5.1	0	780.2	979.0	80	0
SALIMA	Dwangwa Illovo	0.0	33.3	0	952.2	1320.4	72	0
	Lifuwu	0.0	11.7	0	896.8	1228.3	73	0
	Nkhotakota Met	6.2	34.5	18	1065.1	1432.3	74	1
	Salima Met	0.0	9.2	0	703.5	1205.0	58	0
MACHINGA	Balaka Township	0.0	6.8	0	832.5	849.5	98	0
	Chancellor College	10.6	11.0	96	1310.3	1268.8	103	1
	Chikweo Agric.	0.0	9.6	0	829.2	1045.7	79	0
	Chingale Agric	0.0	5.7	0	1253.6	910.3	138	0
	Mpilipili (Makanjila)	0.0	4.8	0	711.9	877.1	81	0
	Makoka Met	0.0	10.4	0	1073.7	959.5	112	0
	Mangochi Met.	0.0	5.0	0	1138.4	697.9	163	0
	Monkey Bay Met.	0.0	1.5	0	917.7	562.9	163	0
	Namiasi Agric	3.9	1.7	229	798.1	742.5	107	1
	Namwera Agric	0.0	8.4	0	720.2	1035.5	70	0
	Ntaja Met.	0.0	15.1	0	957.4	887.5	108	0
	Phalula Agric	0.0	3.5	0	839.6	815.3	103	0
	Zomba Agric.	6.4	13.6	47	1505.6	1187.1	127	1
BLANTYRE	Bvumbwe Met.	0.4	16.5	2	1272.5	1082.9	118	1
	Chichiri Met.	0.0	16.7	0	1548.9	1095.3	141	0
	Chileka Airport	0.0	8.8	0	884.9	872.4	101	0
	Chiradzulu Agric	0.0	11.8	0	1010.5	965.6	105	0
	Lujeri Tea Estate	181.8	63.0	289	3037.6	1983.7	153	7
	Masambanjati Agric	0.0	28.4	0	1798.7	1305.1	138	0
	Mimosa Met.	7.5	36.9	20	2123.5	1412.3	150	2
	Mpemba Vet	0.0	11.3	0	1831.5	1102.4	166	0
	Mulanje Boma	4.1	29.6	14	2431.3	1688.7	144	1
	Mwanza Boma	0.0	10.6	0	729.3	999.1	73	0
	Naminjiwa Agric	0.0	5.4	0	1290.0	943.7	137	0
	Neno Agric	0.0	14.5	0	1524.3	1083.1	141	0
	Satemwa Tea Est.	0.0	17.9	0	1316.5	1067.2	123	0
	Thyolo Met	0.0	16.5	0	1288.3	1173.9	110	0
SHIRE VALLEY	Chikwawa Boma	0.0	6.9	0	933.6	750.2	124	0
	Makhanga Met	0.0	5.9	0	850.4	708.8	120	0
	Nchalo Sucoma	0.0	8.6	0	1057.8	643.1	164	0
	Ngabu Met.	0.0	11.6	0	999.4	747.9	134	0
	Nsanje Boma	0.0	18.3	0	865.1	1066.7	81	0

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR THE PERIOD 21 TO 30 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-² p/day
KARONGA ADD										
Chitipa	26.5	17.0	27.5	14.8	10.4	70	8.9	7.3	5.7	10.6
Karonga	30.0	20.0	31.5	18.5	5.8	65	9.6	7.9	6.2	11.1
MZUZU ADD										
Bolero	28.7	14.6	30.6	12.8	3.6	67	8.0	5.7	4.4	8.7
Mzimba	27.7	14.8	29.5	11.4	5.4	61	8.5	6.0	4.7	9.1
Mzuzu	23.6	15.9	25.0	9.6	4.3	79	7.0	5.1	3.9	8.1
Nkhata Bay	28.7	18.3	30.2	12.9	3.2	78	8.5	6.1	4.7	9.1
KASUNGU ADD										
Kasungu	28.8	13.3	30.4	9.1	3.6	57	6.0	5.3	4.2	7.7
LILONGWE ADD										
Chitedze	27.9	13.8	28.7	10.2	1.8	64	7.0	5.4	4.2	8.4
Dedza	24.2	12.5	25.3	10.7	6.1	61	5.5	5.0	4.0	7.4
K I A	24.2	13.3	27.7	10.6	8.3	59	3.6	4.8	3.9	6.2
SALIMA ADD										
Nkhotatakota	27.8	20.2	29.1	16.8	7.9	65	10.0	7.2	5.7	10.2
Salima	28.9	19.3	30.5	14.0	8.6	64	10.8	7.4	5.8	10.7
MACHINGA ADD										
Makoka	26.7	15.5	29.0	12.4	5.0	61	7.5	5.9	4.6	8.8
Mangochi	30.1	19.0	32.0	14.0	4.7	67	10.5	7.3	5.7	10.6
Monkey Bay	30.0	19.9	31.8	14.4	7.6	57	10.4	7.6	6.0	10.5
Ntaja	27.9	18.7	30.4	16.4	6.1	61	8.0	6.6	5.2	9.4
BLANTYRE ADD										
Bvumbwe	24.1	15.4	25.9	15.1	3.6	55	9.0	6.0	4.6	9.8
Chichiri	24.7	15.2	28.0	14.5	6.8	58	9.0	6.3	4.9	9.8
Chileka	28.1	17.4	30.4	15.4	11.5	58	10.6	7.6	6.0	10.8
Mimosa	25.3	15.2	30.9	11.0	3.6	62	7.5	5.7	4.4	8.9
SHIRE VALLEY ADD										
Ngabu	32.2	19.3	24.4	16.5	5.0	68	10.5	7.7	6.1	10.9

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