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

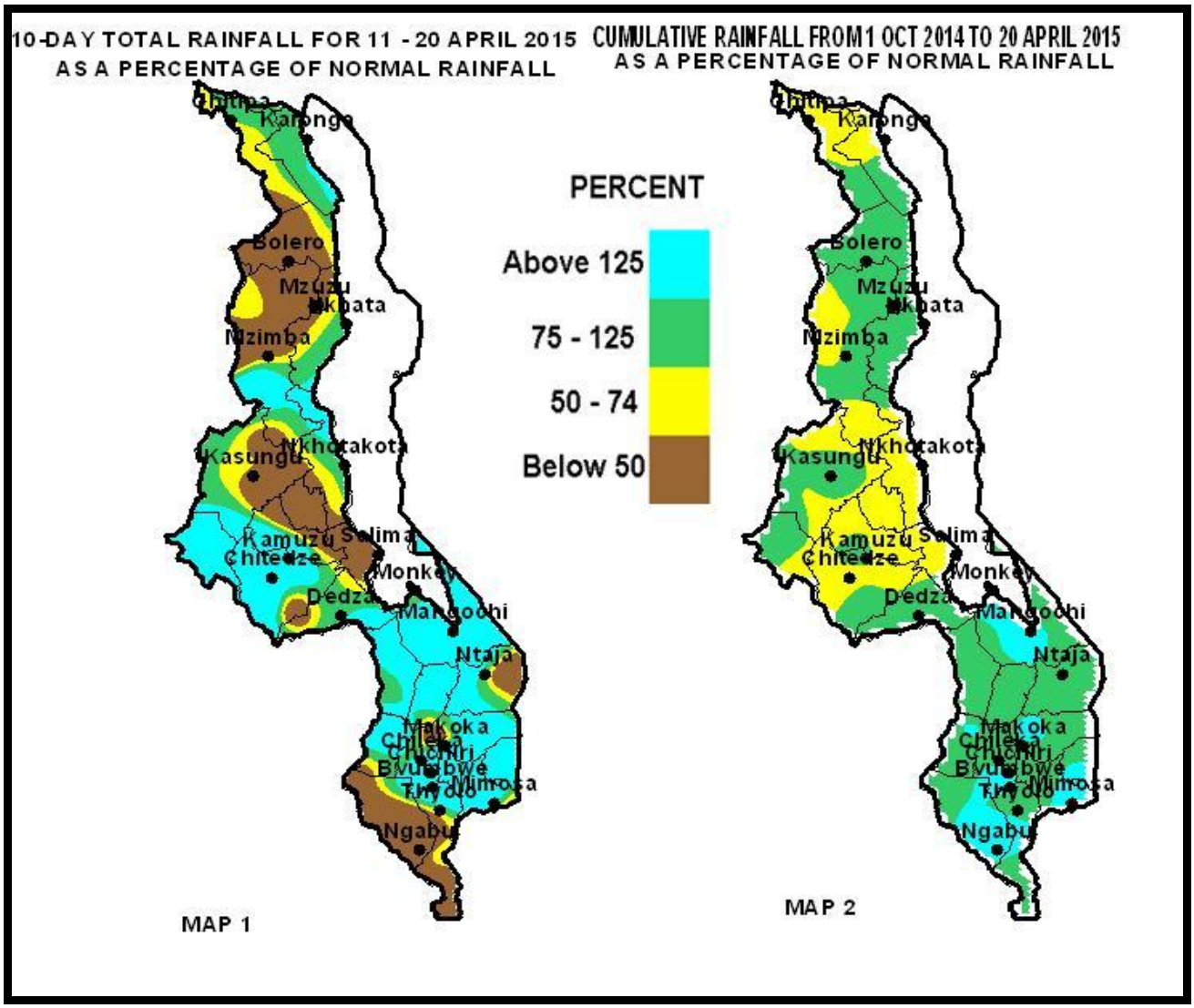
Be wise be weather-wise

Period: 11 – 20 April 2015 Season: 2014/2015 Issue No.20

Release date: 23 April 2015

HIGHLIGHTS

- **Wet weather returned to more areas during the period 11 to 20 April 2015…**
- **Wet weather hindered harvesting and drying of matured crops …**
- **Locally heavy rainfall to persist over Malawi during 21 to 30 April 2015...**



Rainfall Maps for 11 to 20 April 2015

1.0 WEATHER SUMMARY

During the period 11 to 20 April 2015, Malawi was covered by fairly moist and unstable air from the east. As a result most in Malawi particularly over the highlands and along the lakeshore had recorded locally heavy and above average rainfall amounts.

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1.1 RAINFALL SITUATION

During the period 11 to 20 April 2015, the greater part of Malawi had recorded locally heavy and above average rainfall amounts (light blue colour in Map 1) except for a few places mainly over lower Shire Valley, some parts of central and northern Malawi where either nil or light and below average rainfall amounts were recorded. Significant rainfall amounts of at least 100mm were recorded at selected stations including Vinthukutu Agric had recorded 108mm, Chintheche Agric had 144mm, Nkhata Bay Met and Dwanga reported 102mm, Chichiri Met 120mm and Chiradzulu Agric had accumulated 159mm. Otherwise many areas in Malawi had registered light to moderate rainfall amounts ranging from 0 to 50mm. More details are in Table 1 and Map 1.

Cumulative rainfall performance over the country since October 2014 up to 20 April 2015 showed that most areas in southern Malawi have received average to above average rainfall amounts while many areas in the central and northern Malawi have had average to below average cumulative rainfall amounts. For more details refer to Table 1 and Map 2.

1.2 AIR TEMPERATURE

During the second ten days of April 2015, most areas in Malawi had experienced warm to hot temperatures. Mean daily maximum temperatures ranged from 23°C at Dedza to 32°C at Ngabu. The highest absolute maximum temperature for the period was reported at Ngabu and Mangochi (34°C) while the lowest absolute minimum temperature was recorded at Dedza (12°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 Nkhata Bay to 11.2 Kilometres per hour at Chitipa. For more details refer to Table 2.

1.4 RELATIVE HUMIDITY

During the second ten days of April 2015, the amount of moisture in the atmosphere was still fairly good. The mean daily relative humidity values ranged from 59% at Mimosa to 84% at Nkhata Bay. More details are in Table 2. High relative humidity values promote incidences fungal diseases.

1.5 SUNSHINE HOURS

During the second 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 and half hours to around eight hours. Details are on the Table 2.

1.6 VEGETATION CONDITION

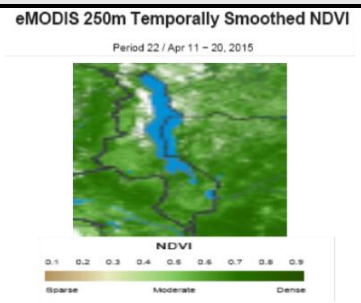

Figure 2: Vegetation Condition over Malawi

The vegetation condition map for Malawi up to 20 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

Fairly wet weather was experienced over most areas in the second ten days of April, 2015. This rainfall supported growth and development of root and tuber crops as well as replenished water resources. On the other hand, wet weather had hindered harvesting and drying of matured crops and this is likely to increase losses of field crops. In most parts of Malawi crops were reported wilting and some drying pre-maturely, raising fears of crop production failure and household food security problems in the 2015/16 consumption season. The worst affected crops include late planted crops and the late maturing crop varieties. The bulk of this crop had not yet reached maturity stage and required more moisture to mature properly.

The maize yield losses largely due to dry spells in March 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 2015 and early cessation of the main rainfall season.

3. OUTLOOK FOR 21 TO 30 APRIL2015

Short to medium range weather forecasts suggest that a series of high pressure areas passing over South Africa will maintain an influx of easterly waves and local convergences over Malawi. Therefore expect light to moderate rainfall to continue over Malawi during the last ten days of April 2015.

4 UPDATED FORECAST FOR 2014/15 RAINFALL SEASON

As the main rainfall season comes to an end, Easterly waves are expected to maintain locally heavy rains over Malawi especially during the better part of April before incursions of cool and moisture air bring chiperoni weather. Therefore, expect light to moderate rainfall to continue particularly over highlands and along the lakeshore districts during May and June 2015.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR 11 TO 20 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.	68.8	76.4	**90**	600	1276.8	**47**	8
	Chitipa Met	13.1	17.4	**75**	681.7	935.8	**73**	3
	Karonga Met.	51.2	59.2	**86**	562.7	954.9	**59**	8
	Lupembe Agric	50.5	36	**140**	737.5	809.9	**91**	3
	Vinthukutu Agric	108.3	73.5	**147**	762.2	1067.2	**71**	5
MZUZU	Bolero Met	4.6	10.8	**43**	549.2	624.9	**88**	1
	Bwengu Agric.	3.0	17.5	**17**	568.3	751.4	**76**	1
	Chelinda (Nyika)	3.5	41.6	**8**	589.9	1165.6	**51**	1
	Chintheche Agric	144.4	128.5	**112**	1184.1	1600.8	**74**	3
	Euthini Agric.	10.4	13.3	**78**	435.8	761.4	**57**	1
	Mbawa Res. Stn	43.0	12.3	**350**	725.3	793.9	**91**	3
	Mzimba Met	1.2	13.9	**9**	572.5	876.2	**65**	1
	Mzuzu Met.	22.6	65.6	**34**	886.9	1031.0	**86**	7
	NkhataBay Met.	101.5	96.0	**106**	1346.2	1311.9	**103**	6
	Rumphi Boma	0.7	13.2	**5**	501.9	720.0	**70**	1
	Zombwe Agric	0.0	19.0	**0**	768.5	735.9	**104**	0
KASUNGU	Dowa Agric	4.7	9.6	**49**	507.9	869.5	**58**	2
	Kaluluma DTC	8.1	16.8	**48**	407.1	806.1	**51**	2
	Kasungu Met	3.7	5.6	**66**	782.6	766.4	**102**	2
	Madisi Agric	0.0	11.6	**0**	487.8	824.3	**59**	0
	Malomo Agric	0.0	2.5	**0**	570.0	810.9	**70**	0
	Mkanda Met	6.0	3.4	**176**	760.8	856.7	**89**	1
	Mponela Agric	4.6	5.3	**87**	624.7	784.3	**80**	2
	Mwimba Research	0.0	6.8	**0**	509.3	863.0	**59**	0
	Ntchisi Boma	17.1	24.8	**69**	636.9	1213.8	**52**	2
LILONGWE	Chileka Namitete	75.6	17.8	**425**	508.0	907.3	**56**	2
	Chitedze Met.	17.9	9.0	**199**	578.3	868.0	**67**	2
	Dedza Met	11.8	10.3	**115**	814.7	915.1	**89**	3
	Dedza RTC	13.2	6.4	**206**	780.2	973.9	**80**	2
	Dzonzi Forest	6.2	21.1	**29**	858.0	973.4	**88**	1
	K.I.A Met	7.5	1.6	**469**	644.8	832.0	**78**	1
	Kasiya Agric	48.6	7.3	**666**	714.6	935.5	**76**	2
	Mlangeni Njolomole	19.3	14.0	**138**	644.0	953.5	**68**	2
	Mtakataka Airwing	0.0	10.5	**0**	716.5	803.9	**89**	0
	Nathenje Agric	13.5	11.5	**117**	624.8	851.8	**73**	1
SALIMA	Dwangwa Illovo.	101.9	58.2	**175**	952.2	1287.1	**74**	5
	Lifuwu	0.0	41.4	**0**	896.8	1216.6	**74**	0
	Salima Met	0.0	27.6	**0**	703.5	1195.8	**59**	0
MACHINGA	Balaka Township	36.9	11.8	**313**	832.5	842.7	**99**	2
	Chancellor College	46.7	21.2	**220**	1299.7	1257.8	**103**	2
	Chikweo Agric.	0.0	7.9	**0**	829.2	1036.1	**80**	0
	Chingale Agric	17.5	15.5	**113**	1253.6	904.6	**139**	3
	Makoka Met	0.0	14.1	**0**	1073.7	949.1	**113**	0
	Mangochi Met.	68.8	9.4	**732**	1138.4	692.9	**164**	2
	Monkey Bay Met.	0.2	3.3	**6**	917.7	561.4	**163**	0
	Mpilipili (Makanjila)	17.3	8.3	**208**	711.9	872.3	**82**	3
	Namiasi Agric	14.3	3.2	**447**	794.2	740.8	**107**	1
	Ntaja Met.	8.9	14.0	**64**	957.4	872.4	**110**	2
	Phalula Agric	8.0	12.7	**63**	839.6	811.8	**103**	1
	Zomba Agric	14.5	19.7	**74**	1499.2	1173.5	**128**	2
BLANTYRE	Bvumbwe Met.	17.1	19.6	**87**	1272.1	1066.4	**119**	2
	Chichiri Met.	119.6	21.1	**567**	1548.9	1078.6	**144**	5
	Chileka Airport	7.6	16.7	**46**	884.9	863.6	**102**	4
	Chiradzulu Agric	158.7	11.9	**1334**	1010.5	953.8	**106**	4
	Chizunga Factory	40.0	32.9	**122**	632.6	1290.7	**49**	5
	Lujeri Tea Estate	44.0	70.2	**63**	2855.8	1920.7	**149**	4
	Masambanjati Agric	9.3	36.4	**26**	1798.7	1276.7	**141**	2
	Mimosa Met.	14.4	43.6	**33**	2116.0	1375.4	**154**	4
	Mpemba Vet	80.5	18.5	**435**	1831.5	1091.1	**168**	4
	Mulanje Boma	95.3	52.8	**180**	2427.2	1659.1	**146**	4
	Mwanza Boma	10.0	16.7	**60**	729.3	988.5	**74**	2
	Neno Agric	78.0	21.2	**368**	1524.3	1068.6	**143**	1
	Satemwa Tea Est.	24.5	24.4	**100**	1316.5	1049.3	**125**	1
	Thyolo Boma	20.2	32.3	**63**	630.5	1123.7	**56**	1
	Thyolo Met	8.0	19.6	**41**	1288.3	1157.4	**111**	1
	Thyolo Boma	20.2	32.3	**63**	630.5	1123.7	**56**	1
SHIRE VALLEY	Chikwawa Boma	2.9	8.1	**36**	933.6	743.3	**126**	2
	Makhanga Met	7.2	10.5	**69**	850.4	702.9	**121**	2
	Nchalo Sucoma	0.0	10.2	**0**	1057.8	634.5	**167**	0
	Ngabu Met.	5.5	13.6	**40**	999.4	736.3	**136**	1
	Nsanje Boma	4.6	26.2	**18**	865.1	1048.4	**83**	2

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR THE PERIOD 11 TO 20 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	26.2	18.0	27.5	16.9	11.2	76	7.1	6.6	5.2	9.3
Karonga	29.7	20.4	31.0	20.0	4.0	77	5.0	5.9	4.7	7.9
MZUZU ADD										
Bolero	28.8	16.5	30.2	15.5	5.4	69	9.0	6.4	5.0	9.6
Mzimba	27.4	16.6	29.6	13.9	4.0	71	7.5	5.8	4.5	8.7
Mzuzu	24.8	17.2	26.4	14.4	4.3	82	7.0	5.4	4.1	8.4
Nkhata Bay	29.8	20.5	31.7	19.7	2.2	84	4.0	4.8	3.8	6.5
KASUNGU ADD										
Kasungu	28.6	17.8	29.4	14.8	5.0	73	8.5	6.4	5.0	9.4
LILONGWE ADD										
Chitedze	27.3	16.6	28.3	14.8	1.8	74	8.6	6.1	4.7	9.6
Dedza	23.4	12.2	24.8	12.1	6.5	74	7.5	5.4	4.1	8.9
K I A	26.0	16.2	26.5	14.2	5.4	72	8.6	6.2	4.8	9.6
SALIMA ADD										
Salima	30.0	21.5	31.0	19.0	6.5	68	8.6	4.5	3.4	9.5
MACHINGA ADD										
Makoka	27.6	17.8	28.5	16.0	3.6	73	7.2	5.9	4.6	8.8
Mangochi	31.5	22.0	33.5	21.0	4.3	73	8.5	7.1	5.6	9.5
Monkey Bay	31.0	22.7	32.1	21.6	6.5	65	9.1	7.6	6.0	9.9
Ntaja	28.4	20.0	30.1	18.6	5.8	67	7.3	6.6	5.2	9.1
BLANTYRE ADD										
Bvumbwe	24.8	16.7	26.2	15.0	6.1	77	8.0	6.0	4.6	9.3
Chichiri	25.2	16.8	27.5	15.7	4.3	75	8.0	6.0	4.6	9.3
Chileka	28.6	18.6	30.2	17.4	9.4	70	8.2	6.8	5.4	9.5
Mimosa	28.6	18.2	30.0	15.6	3.6	59	8.0	6.5	5.1	9.4
SHIRE VALLEY ADD										
Ngabu	32.2	21.8	33.6	20.7	5.4	67	8.5	7.4	5.9	9.7

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