Malawi 10-Day Rainfall & Agrometeorological Bulletin

Department of Climate Change and Meteorological Services

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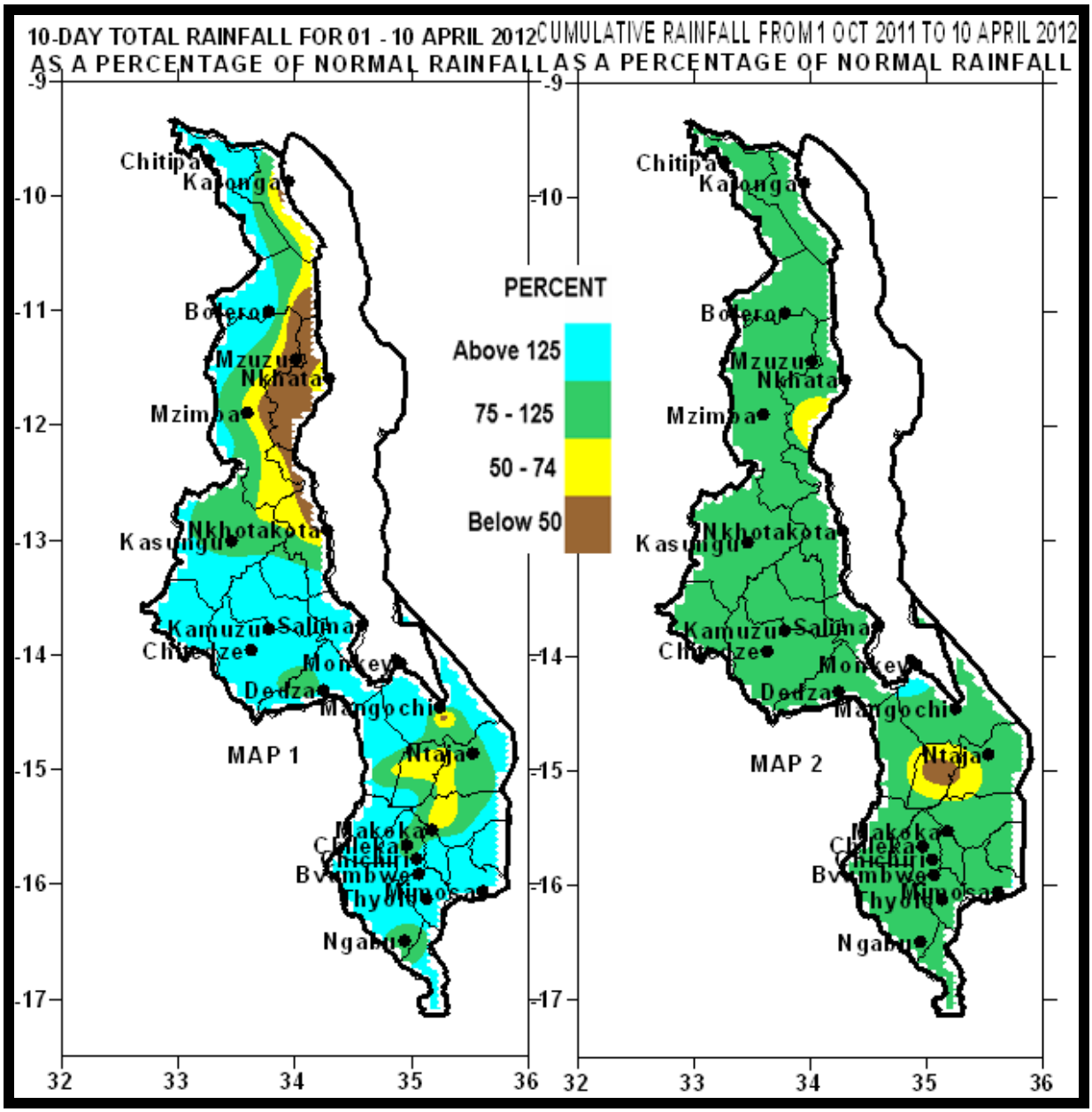
HIGHLIGHTS

- *Heavy rainfall persisted in most parts of Malawi except a few areas along the lakeshore…*
- *Harvesting and drying of matured crops were major agricultural activities.…*
- *Rains to be confined to the north, lakeshore and highlands during 11 to 20th April 2012…*



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1.1 RAINFALL SITUATION

During the first ten days of April 2012, the main rain belt was active over Malawi as it gradually shifted from southern to northern Malawi. As a result most parts of Malawi had received moderate to heavy rainfall amounts except some parts of the north particularly along the Lake Malawi where below long term average rainfall (yellow and brown colours in Map 1) was received. Some areas that registered heavy cumulative rainfall amounts in excess of 100mm included Lujeri Tea Estate 245mm, Mulanje Boma 101mm, Thyolo Boma 108mm, Kamuzu Intl Airport 126mm, Nkhata Bay met 113mm and Chitipa Met 106mm. More details are on Map 1 and Table 1.

The cumulative rainfall map showed that most parts of Malawi had received their long term average cumulative rainfall amounts (Green Colour on Map 2) and pockets of below average rainfall (Yellow colour on Map 2) existed around Balaka district in the south and over a few places in Nkhata Bay district. For more details see Map 2 and Table 1.

1.2 MEAN AIR TEMPERATURE

Malawi continued to experience warm to hot weather by day during the first ten days of April 2012. Daily average maximum temperatures ranged from 22°C at Dedza to 31°C at Ngabu in lower Shire. The highest absolute maximum temperature was still recorded at Ngabu (37°C). For more details see Table 2.

1.4 MEAN WIND SPEEDS

Wind speeds at two meters height above the ground level continued to be light. Daily average wind speeds ranged from 0.5 m/s (1.8Km/hr) at Kamuzu Intl Airport in Lilongwe to 2.9 m/s (10.4Km/hr) at Chileka Airport. More details are in Table 2.

1.5 MEAN RELATIVE HUMIDITY

Humid conditions prevailed over most areas in Malawi during the first ten days of April 2012. Daily average relative humidity values were above 73% over most areas of Malawi except at Ngabu, Monkey Bay and Ntaja. The highest average daily relative humidity was reported at Chongoni in Dedza (89%). More details are on the Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

Most parts of Malawi continued to receive moderate to heavy rainfall amounts during the period under review. As a result most areas became extremely wet. The wet conditions had hampered harvesting and drying of matured crops. These rains apart from facilitating growth and development of crops such as sweet potatoes and cassava also continued to improve water resources and had replenished soil moisture reserves. Although crops had suffered from soil moisture stress due to prolonged dry spells in February, Malawi is expected to meet the national food requirement from current crop production. However, generally southern Malawi is expected to realize lower crop production due to erratic start of planting rains and prolonged dry spells that have been experienced during the month of February. The worst affected were crops that had reached flowering stage.

By 10th April 2012, Maize crop ranged from maturity to drying and harvesting stages. Harvesting of matured crop was a major agricultural activity countrywide.

3. PROSPECTS FOR 2011/12 RAINFALL SEASON

The majority of models predict the return of ENSO-neutral conditions beginning April 2012 and continuing up to summer. As a result average rainfall amounts are expected over Malawi between April and June 2012.

As the main rainfall season is tailing off, most parts of Malawi are expected to stay dry. Most of the rains will be confined to lakeshore and over highlands during most of the period April to June 2012.

4. OUTLOOK FOR 11 – 20 APRIL 2012

Short to medium rainfall forecast products indicate that the a series of high pressure areas in the Indian Ocean will confine most of the rainfall to northern Malawi, Lakeshore and over highlands during the period 11 to 20th April 2012 as the main summer rainfall season comes to an end. The main rainfall season in Malawi starts in October and ends in April and sometimes early May.

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 01 – 10 APRIL 2012 AT SELECTED STATIONS

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS %	TOTAL TO DATE	NORMAL TO DATE	TOTAL TO DATE AS %	RAINY DAYS
SOUTHERN REGION	mm	mm	NORMAL	mm	mm	NORMAL	≥ 0.3 mm
Balaka Township	10.1	21.4	**47**	334.3	830.9	**40**	1
Bvumbwe Met.	62.8	30.7	**205**	1079.8	1046.8	**103**	5
Chancellor College	29.2	36.5	**80**	892.4	1236.6	**72**	4
Chichiri Met.	31.1	29.0	**107**	1042.5	1057.5	**99**	4
Chikwawa Boma	56.9	21.2	**268**	578.1	735.2	**79**	4
Chikweo Agric.	40.0	27.1	**148**	1093.7	1028.2	**106**	3
Chileka Airport	19.2	20.0	**96**	782.3	846.9	**92**	3
Chiradzulu Agric	56.9	22.4	**254**	796.0	941.9	**85**	2
Kasinthula Res. Stn.	27.6	18.1	**152**	907.4	685.3	**132**	4
Lujeri Tea Estate	246.9	106.5	**232**	2416.9	1850.5	**131**	9
Makhanga Met	23.6	16.4	**144**	695.4	692.4	**100**	6
Makoka Met	17.6	30.7	**57**	991.0	935.0	**106**	2
Mangochi Met.	16.8	20.2	**83**	840.0	683.5	**123**	3
Masambanjati Agric	97.1	51.7	**188**	1036.6	1240.3	**84**	8
Mimosa Met.	75.3	63.8	**118**	1634.3	1331.8	**123**	7
Monkey Bay Met.	14.5	6.5	**223**	858.5	558.1	**154**	2
Mulanje Boma	100.5	82.2	**122**	1668.1	1606.3	**104**	5
Mwanza Boma	97.7	34.9	**280**	1044.8	971.8	**108**	4
Namiasi Agric	21.5	4.6	**467**	717.2	737.6	**97**	1
Nankumba Agric	76.5	19.1	**401**	N/A	820.7	**N/A**	2
Nchalo Sucoma	30.2	18.9	**160**	765.7	624.3	**123**	5
Ngabu Met.	12.4	17.9	**69**	639.0	722.7	**88**	4
Nsanje Boma	45.2	21.7	**208**	739.2	1022.2	**72**	3
Ntaja Met.	30.9	31.2	**99**	746.3	858.4	**87**	3
Phalula Agric	26.5	14.3	**185**	678.6	799.1	**85**	1
Thyolo Boma	107.7	42.6	**253**	939.1	1091.4	**86**	8
Thyolo Met	95.9	30.7	**312**	1218.2	1137.8	**107**	7
Zomba Land Hus.	19.1	42.0	**45**	766.3	1153.8	**66**	2
CENTRAL REGION							
Chitedze Met.	67.3	29.3	**230**	851.0	859.0	**99**	2
Dedza Met	34.0	25.6	**133**	1137.2	904.8	**126**	5
Dowa Agric	43.3	24.5	**177**	815.4	859.9	**95**	4
Dwangwa Sugar Corp.	40.9	92.8	**44**	945.8	1228.9	**77**	2
Dzonzi Forest	18.0	20.5	**88**	981.7	952.3	**103**	2
K.I.A Met	126.4	19.6	**645**	1024.3	830.4	**123**	3
Kasiya Agric	69.0	19.0	**363**	960.3	928.2	**103**	2
Kasungu Met	14.3	17.6	**81**	853.1	760.8	**112**	2
Lifuwu	64.9	46.3	**140**	1244.7	1175.2	**106**	2
Mchinji Boma	59.8	29.3	**204**	973.1	977.9	**100**	2
Mkanda Met	43.1	25.9	**166**	1067.1	853.3	**125**	3
Nathenje Agric	50.0	44.0	**114**	852.0	840.3	**101**	2
Nkhotakota Met	36.4	97.1	**37**	1445.2	1341.7	**108**	3
Ntcheu - Nkhande	53.9	19.0	**284**	1045.4	1011.0	**103**	3
Ntchisi Boma	64.8	47.4	**137**	626.7	1189.0	**53**	3
Salima Met	71.0	44.8	**158**	1105.9	1168.2	**95**	2
NORTHERN REGION							
Baka Res. Stn.	21.6	140.5	**15**	820.8	1200.4	**68**	3
Bolero Met	37.8	18.2	**208**	715.3	614.1	**116**	3
Chikangawa forest	0.0	70.3	**0**	743.0	1039.0	**72**	0
Chitipa Met	106.3	37.9	**280**	1049.9	918.4	**114**	5
Chintheche Agric	34.5	146.7	**24**	963.6	1472.3	**65**	3
Karonga Met.	15.1	88.0	**17**	855.1	895.7	**95**	3
Mbawa Res. Stn	26.0	16.5	**158**	858.3	781.6	**110**	2
Mzimba Met	11.2	23.5	**48**	719.9	862.3	**83**	3
Mzuzu Met.	22.2	89.2	**25**	853.6	965.4	**88**	6
NkhataBay Met.	113.0	133.0	**85**	1148.7	1215.9	**94**	5
Rumphi Boma	8.5	30.0	**28**	606.2	706.8	**86**	2
Vinthukutu Agric	69.7	112.7	**62**	1132.7	993.7	**114**	3
Zombwe Agric	27.2	36.0	**76**	685.8	716.9	**96**	2

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 01 – 10 APRIL 2012

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	27.1	17.3	29.1	15.6	1.0	76
BVUMBWE	24.4	16.4	28.1	13.6	1.5	83
CHICHIRI	24.2	16.3	29.6	14.4	0.9	76
CHILEKA	26.3	16.3	30.9	16.4	2.9	74
CHITIPA	25.7	17.4	29.6	17.0	1.2	82
DEDZA	22.0	13.3	25.6	11.1	1.0	89
K I A	24.6	14.3	27.7	12.1	0.5	78
KARONGA	29.5	21.5	30.5	N/A	1.3	77
KASUNGU	27.4	16.5	29.8	14.3	1.2	75
MAKOKA	27.1	16.2	29.0	17.3	1.1	81
MANGOCHI	28.7	20.0	33.0	18.5	1.5	76
MIMOSA	27.9	17.8	34.0	16.5	1.0	83
MONKEY BAY	28.8	20.4	31.8	19.0	1.7	72
MZIMBA	26.3	16.0	28.7	14.5	1.2	74
MZUZU	23.9	16.9	26.5	15.5	1.7	86
NGABU	30.7	17.5	37.1	16.3	0.7	59
NKHATA BAY	28.5	20.2	32.2	19.2	0.8	85
NKHOTAKOTA	27.3	20.7	30.4	19.7	2.5	76
NTAJA	26.9	18.5	30.6	16.8	0.9	65
SALIMA	28.5	20.8	32.0	20.2	1.5	73

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