Malawi 10-Day Rainfall & Agrometeorological Bulletin

Department of Climate Change and Meteorological Services

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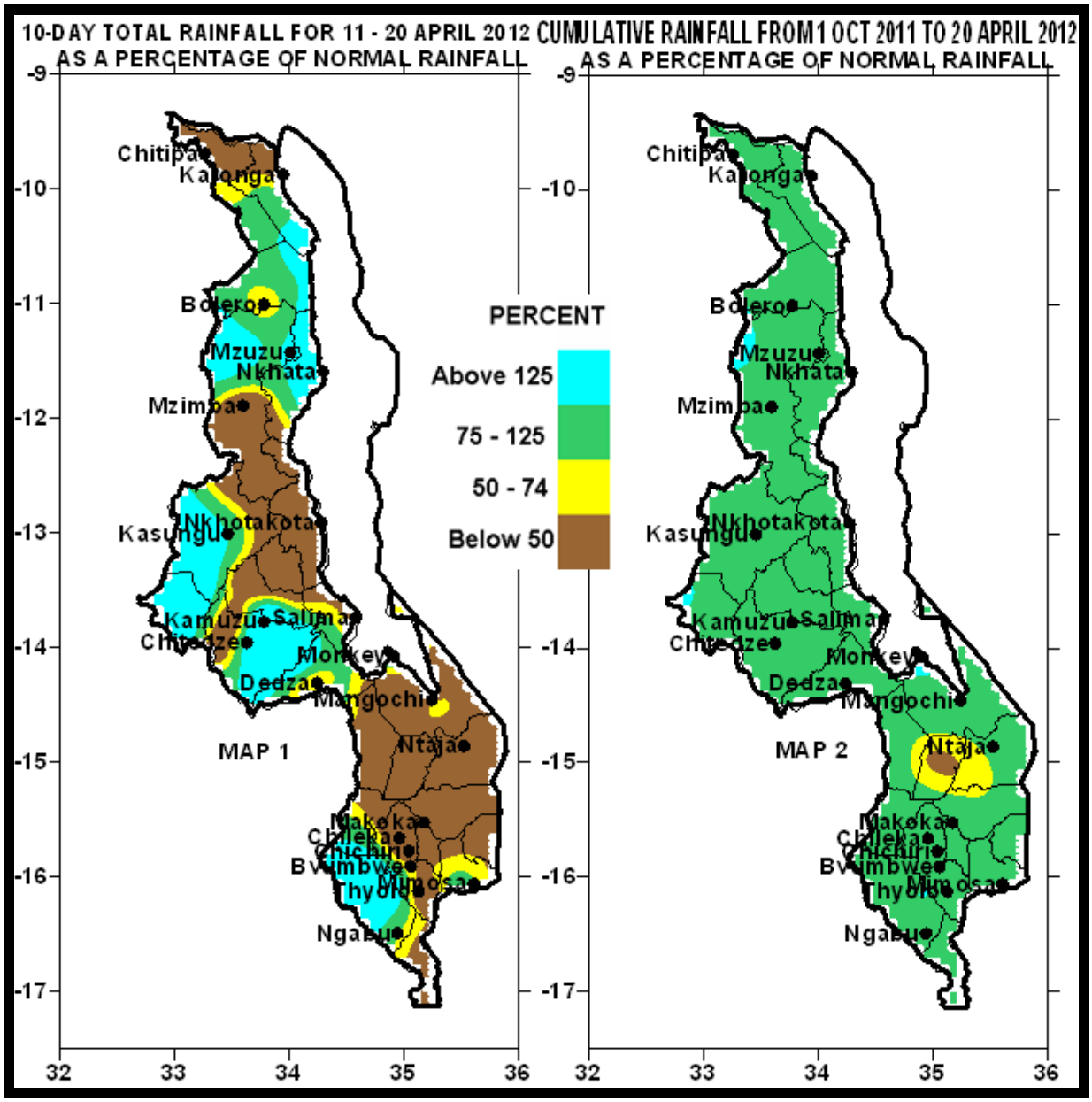
HIGHLIGHTS

- *Moderate to heavy rainfall persisted over highlands and along the lakeshore…*
- *Harvesting and drying of matured crops were major agricultural activities.…*
- *A further reduction in rainfall expected over Malawi during 21 to 30th April 2012…*



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1.1 RAINFALL SITUATION

During the second ten days of April 2012, a high pressure area in the Indian Ocean had pushed the main rain belt northwards to the United Republic of Tanzania. As a result substantial rainfall amounts that were much above the long term average were mostly confined to lakeshore areas and a few highlands while dry weather conditions were reported in most areas. Areas that had registered significant cumulative rainfall amounts in excess of 100mm were confined to northern Lakeshore areas including Chintheche Agric (221mm), Nkhata Bay Met at Mkondezi (161mm) and Vinthukutu Agric in Karonga (135mm). More details are on Map 1 and Table 1.

The cumulative rainfall situation showed that most areas in Malawi had received their seasonal average cumulative rainfall amounts (Green Colour on Map 2) and below average rainfall (brown and yellow colour on Map 2) existed around Balaka district in the south. 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 second ten days of April 2012. Daily average maximum temperatures ranged from 21°C at Dedza to 30°C at Ngabu in lower Shire. The highest absolute maximum temperature was still recorded at Ngabu (32°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 0.9 m/s (3.6Km/hr) at Ngabu Meteorological Station to 3.4 m/s (12.2Km/hr) at Salima. More details are in Table 2.

1.5 MEAN RELATIVE HUMIDITY

Fairly moist air had prevailed over most areas in Malawi during the period 11 to 20th April 2012. Daily average relative humidity values were above 70% over most areas of Malawi except at Monkey Bay, Mzimba, Nkhotakota and Salima. The highest average daily relative humidity was reported at Mzuzu Airport (82%). More details are on the Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

Most parts of Malawi started drying up during the period under review as the rainfall season was tailing off. Dry weather had facilitated harvesting and drying of matured crops. On the other hand wet conditions had supported growth and development tuber crops, contributed to improvement of water resources and soil moisture reserves. The overall seasonal rainfall performance has been generally average. However, southern Malawi expected to experience localized food shortages due to below average crop production as a result of erratic start of main planting rains and prolonged dry spells in February. The other regions are expected to realize average crop yields and production. At national level Malawi is again expected to meet its national food requirement and have some excess from current crop production.

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 21 – 30 APRIL 2012

Short to medium weather forecast products indicate that Malawi will experience incursions of cool and moist air from the Indian Ocean. As a result locally cloudy and cold weather with patches of rain and drizzle are expected over Malawi during the last days of April 2012 as the main summer rainfall season comes to an end.

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 11 – 20 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
	mm	mm	NORMAL	mm	mm	NORMAL	≥ 0.3 mm
SOUTHERN REGION							
Balaka Township	0.0	11.8	**0**	334.3	842.7	**40**	0
Bvumbwe Met.	9.3	19.6	**47**	1089.1	1066.4	**102**	2
Chancellor College	0.0	21.2	**0**	892.4	1257.8	**71**	0
Chichiri Met.	4.3	21.1	**20**	1046.8	1078.6	**97**	2
Chikwawa Boma	22.0	8.1	**272**	600.1	743.3	**81**	4
Chikweo Agric.	0.0	7.9	**0**	1093.7	1036.1	**106**	0
Chileka Airport	0.8	16.7	**5**	783.1	863.6	**91**	1
Chingale Agric	0.0	15.5	**0**	800.5	904.6	**88**	0
Chiradzulu Agric	1.8	11.9	**15**	797.8	953.8	**84**	1
Kasinthula Res. Stn.	33	12.4	**266**	940.4	697.7	**135**	1
Liwonde Township	0.0	14.4	**0**	330.2	799.6	**41**	0
Makhanga Met	5.0	10.5	**48**	700.4	702.9	**100**	2
Makoka Met	0.0	14.1	**0**	991.0	949.1	**104**	0
Mangochi Met.	8.1	9.4	**86**	848.1	692.9	**122**	1
Mimosa Met.	25.5	43.6	**58**	1659.8	1375.4	**121**	3
Monkey Bay Met.	3.6	3.3	**109**	862.1	561.4	**154**	1
Mpemba Vet	7.9	18.5	**43**	1228.9	1091.1	**113**	1
Mulanje Boma	68.7	52.8	**130**	1736.8	1659.1	**105**	3
Mwanza Boma	17.9	16.7	**107**	1062.7	988.5	**108**	2
Namiasi Agric	0.0	3.2	**0**	717.2	740.8	**97**	0
Nankumba Agric	0.0	8.5	**0**	845.8	829.2	**102**	0
Nchalo Sucoma	13.7	10.2	**134**	779.4	634.5	**123**	2
Ngabu Met.	9.8	13.6	**72**	648.8	736.3	**88**	1
Nsanje Boma	0.0	26.2	**0**	739.2	1048.4	**71**	0
Ntaja Met.	0.1	14.0	**1**	746.4	872.4	**86**	0
Phalula Agric	0.0	12.7	**0**	678.6	811.8	**84**	0
Satemwa Tea Est. No.1	14.5	24.4	**59**	1065.3	1049.3	**102**	3
Thyolo Boma	14.5	32.3	**45**	953.6	1123.7	**85**	3
Thyolo Met	3.0	19.6	**15**	1221.2	1157.4	**106**	2
CENTRAL REGION							
Chileka Namitete	0.0	17.8	**0**	760.1	907.3	**84**	0
Chitedze Met.	13.6	9.0	**151**	864.6	868.0	**100**	1
Dedza Met	4.5	10.3	**44**	1141.7	915.1	**125**	1
Dowa Agric	5.7	9.6	**59**	821.1	869.5	**94**	1
Dwangwa Sugar Corp.	0.0	58.2	**0**	940.8	1287.1	**73**	0
Dzonzi Forest	0.0	21.1	**0**	981.7	973.4	**101**	0
Kaluluma DTC	0.0	16.8	**0**	804.4	806.1	**100**	0
K.I.A Met	5.1	1.6	**319**	1029.4	832.0	**124**	2
Kasiya Agric	0.0	7.3	**0**	960.3	935.5	**103**	0
Kasungu Met	7.6	5.6	**136**	860.7	766.4	**112**	1
Madisi Agric	0.0	11.6	**0**	732.2	824.3	**89**	0
Mchinji Boma	44.3	15.3	**290**	1188.0	993.2	**120**	2
Mkanda Met	15.1	3.4	**444**	1082.2	856.7	**126**	2
Mlangeni Njolomole	8.6	14.0	**61**	1082.3	953.5	**114**	1
Nathenje Agric	45.0	11.5	**391**	897.0	851.8	**105**	2
Nkhotakota Met	2.9	56.1	**5**	1448.1	1397.8	**104**	2
Ntcheu - Nkhande	0.0	16.8	**0**	1045.4	1027.8	**102**	0
Ntchisi Boma	0.0	24.8	**0**	626.7	1213.8	**52**	0
Salima Met	10.3	27.6	**37**	1116.2	1195.8	**93**	1
Dedza RTC	7.3	6.4	**114**	1106.7	973.9	**114**	1
NORTHERN REGION							
Baka Res. Stn.	64.8	76.4	**85**	1011.9	1276.8	**79**	5
Bolero Met	4.4	10.8	**41**	719.7	624.9	**115**	3
Bwengu Agric.	18.4	17.5	**105**	743.9	751.4	**99**	4
Chikangawa forest	12.2	29.5	**41**	755.2	1068.5	**71**	1
Chitipa Met	4.0	17.4	**23**	1053.9	935.8	**113**	1
Chintheche Agric	221.1	128.5	**172**	1420.9	1600.8	**89**	4
Emfeni Agric	4.2	25.8	**16**	801.4	801.6	**100**	1
Euthini Agric.	28.4	13.3	**214**	990.4	761.4	**130**	5
Karonga Met.	0.0	59.2	**0**	855.1	954.9	**90**	0
Lupembe	29.3	36.0	**81**	757.2	809.9	**93**	3
Mbawa Res. Stn	0.0	12.3	**0**	858.3	793.9	**108**	0
Mzimba Met	0.0	13.9	**0**	719.9	876.2	**82**	0
Mzuzu Met.	87.3	65.6	**133**	940.9	1031.0	**91**	5
NkhataBay Met.	161.2	96.0	**168**	1309.9	1311.9	**100**	6
Rumphi Boma	9.7	13.2	**73**	615.9	720.0	**86**	4
Vinthukutu Agric	135.5	73.5	**184**	1268.2	1067.2	**119**	4

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 11 – 20 APRIL 2012

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	21.4	13.9	24.6	11.9	2.9	78
BVUMBWE	26.4	16.1	28.8	12.9	N/A	71
CHICHIRI	22.6	14.9	26.4	13.0	1.3	75
CHILEKA	25.1	16.8	27.5	15.0	3.2	70
CHITEDZE	24.8	14.9	27.6	12.3	1.0	72
CHITIPA	25.2	16.6	27.4	14.6	2.6	73
DEDZA	21.4	12.1	24.7	9.9	1.0	79
K I A	24.5	12.2	27.2	9.5	1.7	72
KARONGA	28.3	20.1	31.0	18.8	1.3	75
KASUNGU	26.8	14.2	28.8	11.7	1.1	70
MAKOKA	24.2	14.8	27.5	12.2	2.0	73
MANGOCHI	28.3	19.4	31.9	16.8	1.9	73
MIMOSA	26.1	13.3	29.3	13.1	1.3	78
MONKEY BAY	28.3	19.7	31.5	17.2	2.5	64
MZIMBA	25.5	15.2	27.8	11.6	1.7	68
MZUZU	22.7	15.0	26.0	12.2	1.9	82
NGABU	30.2	16.1	31.8	14.1	0.9	72
NKHATA BAY	27.9	19.2	32.6	16.4	1.1	78
NKHOTAKOTA	26.8	20.2	29.3	18.7	3.1	66
NTAJA	25.8	17.8	28.4	14.6	2.0	72
SALIMA	27.4	20.5	30.5	16.5	3.4	68

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