Malawi 10-Day Rainfall & Agrometeorological Bulletin

Department of Climate Change and Meteorological Services

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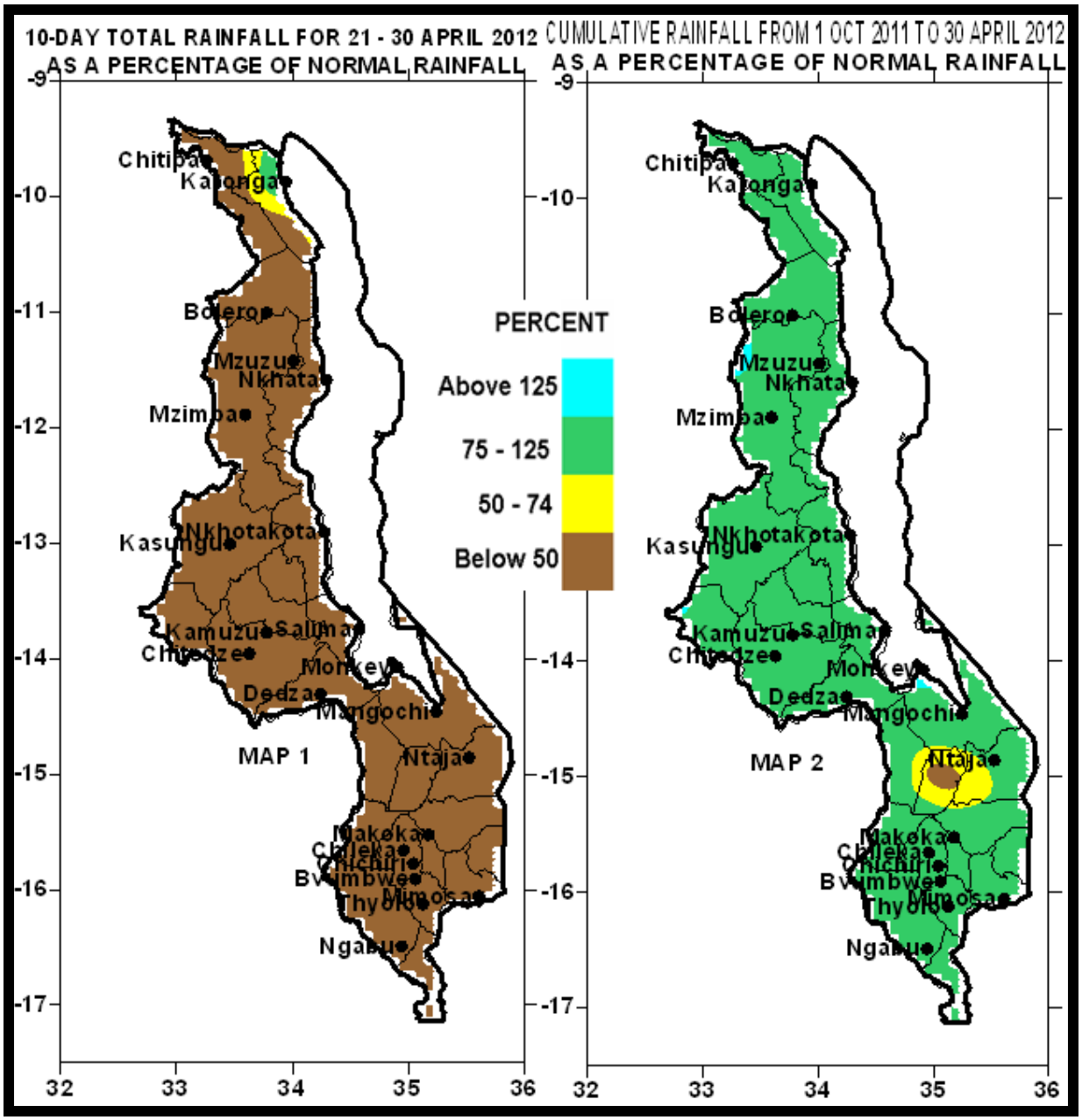
HIGHLIGHTS

- ***Dry conditions prevailed in most areas during the last ten days of April 2012…***
- ***Average seasonal rainfall amounts received in 2011/12 season…***
- ***Occasional light rainfall expected in May and June 2012……***



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the last ten days of April 2012, the main rain belt was over East Africa. As a result dry weather prevailed over most parts of Malawi except at very few places mainly over the extreme northern lakeshore. Details are on Table 1. Most areas registered nil rainfall for the entire period.

Cumulative rainfall performance from October 2011 up to 30 April, 2012 indicated that the 2010/11 rainfall season in Malawi has been generally good (green colour on Map 2) although localized rainfall deficits have also been experienced. Notable areas with rainfall deficits (yellow and brown colours on map 2) were mostly confined around Balaka district in southern Malawi. The rainfall deficit has been mainly due to poor start and the rains and prolonged dry spells in February 2012.

1.2 MEAN AIR TEMPERATURE

During the last ten days of April 2012, 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 22°C over highlands such as at Dedza to 31°C over low altitude areas such as Ngabu in Chikhwawa. The highest absolute maximum temperaure was registered at Ngabu (34°C) while the lowest absolute minimum temperature was 7°C, reported at Bvumbwe Research Station in Thyolo. Details are in Table 2.

1.4 MEAN WIND SPEEDS

Mean daily wind speed at a height of two meters above the ground, were generally light during the period under review. The highest wind speed was reported at Chileka Airport (3.3 m/s or 11.9 Km/hr.) while the lowest wind speed was recorded at Dedza and Nkhata Bay (1.0 m/s or 3.6 Km/hr.). More details are in Table 2.

1.5 MEAN RELATIVE HUMIDITY

Mean Relative Humidity values continued started to decline over most areas as dry weather crept in. The mean daily values ranged from 60% at Monkey Bay to 80% at Mzuzu. More details are in Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

Dry conditions that prevailed over the country during the last ten days of April 2012 continued to facilitate harvesting and drying of matured crops. Harvesting of maize which is the staple food for Malawians was in progress throughout the country. This led to great improvement in food security at household level as most farm families had food from their own production. The rainfall performance during the 2011/12 growing season has been generally average with no erratic and poor start the planting rains and prolonged dry spells particularly in southern Malawi. This resulted in average crop stand in most fields and average crop yields. Crop production in the south has been negatively affected by prolonged dry spells in February. Therefore localized food shortages in some districts in the south are again inevitable this season.

Second round results from the Agrometeorological Maize Yield assessment model suggest that despite poor and erratic start of the planting rains and prolonged dry spells which negatively affected crops in February at national level, Malawi is expected to produce around 3.5 million Metric Tons of Maize this season. However, this is not the official figure. For official agricultural production estimates please contact Ministry of Agriculture and Food Security.

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 May and June 2012.

4. OUTLOOK FOR MAY AND JUNE 2012

A series of high pressure systems are expected to periodically induce cool and moist air from the Indian Ocean into Malawi. Therefore, occasional light rainfall is expected particularly over highlands and along the Lakeshore during May and June 2012.

THIS IS THE LAST BULLETIN FOR 2011-12 RAINFALL SEASON

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 21 – 30 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	0.0	6.8	**0**	334.3	849.5	**39**	0
Bvumbwe Met.	1.2	16.5	**7**	1090.3	1082.9	**101**	1
Chichiri Met.	0.0	16.7	**0**	1046.8	1095.3	**96**	0
Chikwawa Boma	0.9	6.9	**13**	601.0	750.2	**80**	1
Chikweo Agric.	0.0	9.6	**0**	1093.7	1045.7	**105**	0
Chileka Airport	0.0	8.8	**0**	783.1	872.4	**90**	0
Chingale Agric	0.0	5.7	**0**	800.5	910.3	**88**	0
Chiradzulu Agric	0.0	11.8	**0**	797.8	965.6	**83**	0
Liwonde Township	0.0	5.1	**0**	330.2	804.7	**41**	0
Lujeri Tea Estate	0.0	63.0	**0**	2416.9	1983.7	**122**	0
Mpilipili (Makanjila)	0.0	4.8	**0**	787.3	877.1	**90**	0
Makhanga Met	0.0	5.9	**0**	700.4	708.8	**99**	0
Makoka Met	0.0	10.4	**0**	991.0	959.5	**103**	0
Mangochi Met.	0.0	5.0	**0**	848.1	697.9	**122**	0
Masambanjati Agric	0.0	28.4	**0**	1036.6	1305.1	**79**	0
Mimosa Met.	0.0	36.9	**0**	1659.8	1412.3	**118**	0
Monkey Bay Met.	0.0	1.5	**0**	862.1	562.9	**153**	0
Mpemba Vet	0.0	11.3	**0**	1228.9	1102.4	**111**	0
Mulanje Boma	0.0	29.6	**0**	1736.8	1688.7	**103**	0
Mwanza Boma	0.0	10.6	**0**	1062.7	999.1	**106**	0
Namiasi Agric	0.0	1.7	**0**	717.2	742.5	**97**	0
Namwera Agric	0.0	8.4	**0**	707.6	1035.5	**68**	0
Nankumba Agric	0.0	4.6	**0**	845.8	833.8	**101**	0
Nchalo Sucoma	1.9	8.6	**22**	781.3	643.1	**121**	1
Neno Agric	0.0	14.5	**0**	958.8	1083.1	**89**	0
Ngabu Met.	0.0	11.6	**0**	648.8	747.9	**87**	0
Nsanje Boma	0.0	18.3	**0**	739.2	1066.7	**69**	0
Ntaja Met.	0.0	15.1	**0**	746.4	887.5	**84**	0
Phalula Agric	0.0	3.5	**0**	678.6	815.3	**83**	0
Satemwa Tea Est. No.1	0.0	17.9	**0**	1065.3	1067.2	**100**	0
Thyolo Boma	1.1	24.7	**4**	954.7	1148.4	**83**	1
Thyolo Met	3.6	16.5	**22**	1224.8	1173.9	**104**	2
CENTRAL REGION							
Chileka Namitete	0.0	13.9	**0**	760.1	921.2	**83**	0
Chitedze Met.	0.0	6.5	**0**	864.6	874.5	**99**	0
Dedza Met	0.0	8.6	**0**	1141.7	923.7	**124**	0
Dowa Agric	0.0	2.8	**0**	821.1	872.3	**94**	0
Dzonzi Forest	0.0	5.4	**0**	981.7	978.8	**100**	0
Kaluluma DTC	0.0	3.7	**0**	804.4	809.8	**99**	0
K.I.A Met	0.0	6.1	**0**	1029.4	838.1	**123**	0
Kasiya Agric	0.0	12.6	**0**	960.3	948.1	**101**	0
Kasungu Met	0.0	4.0	**0**	860.7	770.4	**112**	0
Lifuwu	0.0	11.7	**0**	1244.7	1228.3	**101**	0
Malomo Agric	0.0	14.9	**0**	790.1	825.8	**96**	0
Madisi Agric	0.0	3.6	**0**	732.2	827.9	**88**	0
Mchinji Boma	0.0	10.2	**0**	1188.0	1003.4	**118**	0
Mkanda Met	0.0	7.1	**0**	1082.2	863.8	**125**	0
Mlangeni Njolomole	0.0	4.7	**0**	1082.3	958.2	**113**	0
Mponela Agric	0.0	2.6	**0**	726.8	786.9	**92**	0
Mtakataka Airwing	0.0	2.4	**0**	769.3	806.3	**95**	0
Nathenje Agric	0.0	13.2	**0**	897.0	865.0	**104**	0
Nkhotakota Met	0.1	34.5	**0**	1448.2	1432.3	**101**	0
Ntcheu - Nkhande	0.0	7.2	**0**	1045.4	1035.0	**101**	0
Salima Met	0.0	9.2	**0**	1116.2	1205.0	**93**	0
Dedza RTC	0.0	5.1	**0**	1106.7	979.0	**113**	0
NORTHERN REGION							
Baka Res. Stn.	43.3	41.0	**106**	1055.2	1317.8	**80**	3
Bolero Met	0.9	4.2	**21**	720.6	629.1	**115**	1
Bwengu Agric.	0.0	7.4	**0**	743.9	758.8	**98**	0
Chitipa Met	0.0	4.2	**0**	1053.9	940.0	**112**	0
Chintheche Agric	0.0	82.6	**0**	1420.9	1683.4	**84**	0
Emfeni Agric	0.0	4.4	**0**	801.4	806.0	**99**	0
Euthini Agric.	0.0	14.0	**0**	990.4	775.4	**128**	0
Karonga Met.	29.4	25.9	**114**	884.5	980.8	**90**	3
Lupembe	7.5	12.7	**59**	764.7	822.6	**93**	2
Mbawa Res. Stn	0.0	7.3	**0**	858.3	801.2	**107**	0
Mzimba Met	0.0	9.1	**0**	719.9	885.3	**81**	0
Mzuzu Met.	25.6	43.6	**59**	966.5	1074.6	**90**	4
NkhataBay Met.	10.6	81.9	**13**	1320.5	1393.8	**95**	2
Rumphi Boma	0.0	8.3	**0**	615.9	728.3	**85**	0
Vinthukutu Agric	30.3	53.3	**57**	1298.5	1120.5	**116**	2

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 21 – 30 APRIL 2012

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	27.1	12.3	28.4	9.9	N/A	66
BVUMBWE	23.3	11.5	25.5	7.2	2.2	69
CHICHIRI	23.7	13.8	27.0	11.6	1.2	67
CHILEKA	26.1	15.6	28.9	13.6	3.3	63
CHITIPA	25.2	15.3	26.5	12.9	2.5	72
DEDZA	22.2	10.8	24.6	9.4	1.0	71
K I A	24.9	10.5	26.5	8.5	1.3	66
KARONGA	28.8	19.3	30.0	17.8	1.3	70
KASUNGU	27.2	11.4	29.2	10.0	1.5	67
MAKOKA	25.4	18.2	28.7	10.6	1.3	78
MANGOCHI	29.0	17.8	36.1	14.6	1.4	65
MIMOSA	27.8	11.4	28.5	10.3	1.2	71
MONKEY BAY	28.2	18.3	30.4	15.9	2.0	60
MZIMBA	25.6	13.8	27.4	11.1	1.7	63
MZUZU	22.9	12.0	24.7	8.3	1.5	80
NGABU	31.3	14.8	33.7	12.1	1.1	70
NKHATA BAY	27.9	16.2	29.7	13.4	1.0	77
NKHOTAKOTA	26.7	18.8	29.2	16.9	2.6	61
NTAJA	27.0	16.5	29.2	14.7	1.8	62
SALIMA	27.7	18.1	30.5	15.5	2.3	64

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