REPUBLIC OF MALAWI

Department of Climate Change and Meteorological Services

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HIGHLIGHTS

- **Above average rainfall received in most areas …**
- **Crops were mostly at drying and harvesting stages…**
- **Mainly dry weather expected during the period 11 to 20 April 2014…**

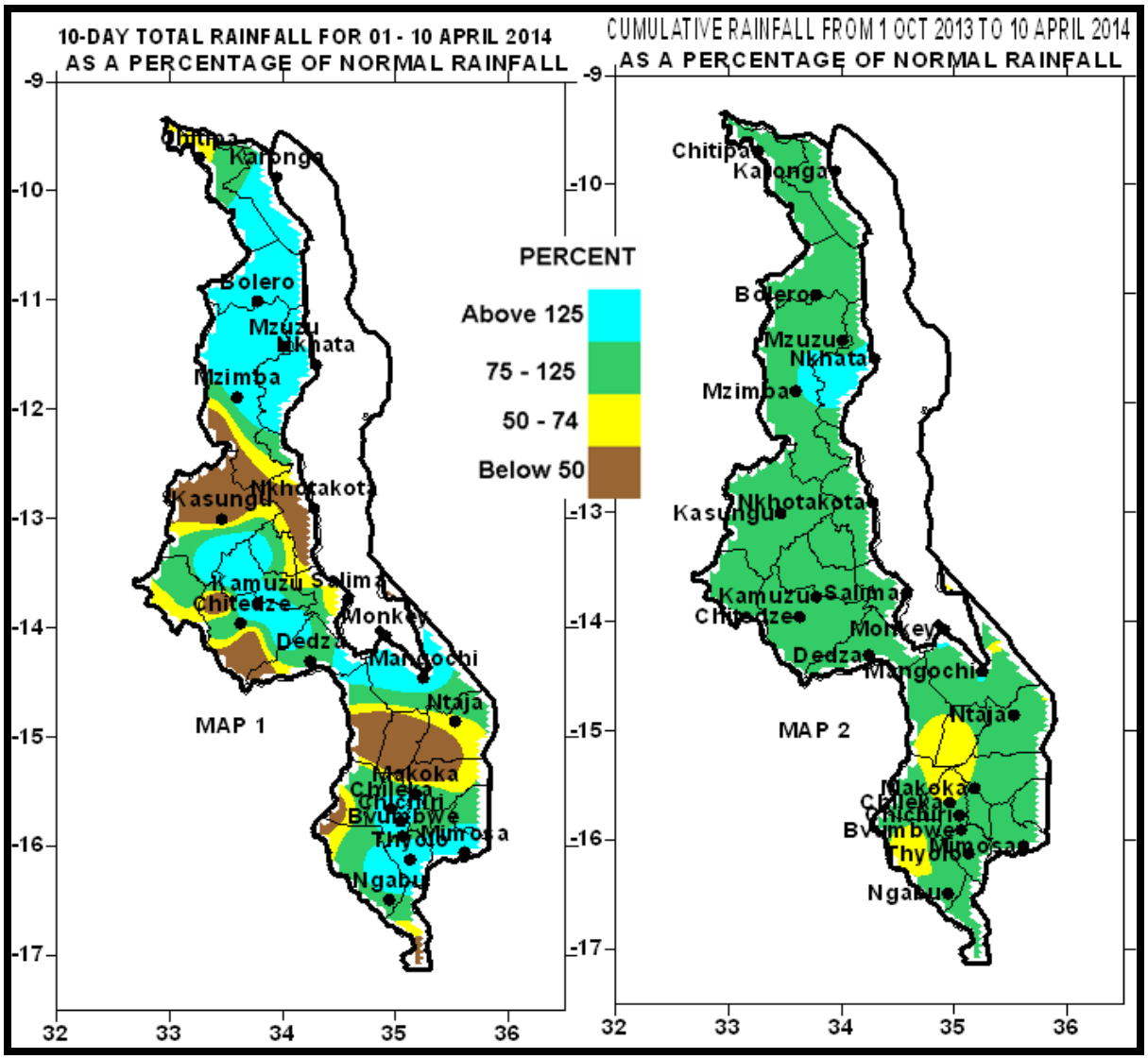

Figure 1: Rainfall Maps for Malawi for 01 to 10 April 2014

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1.0 WEATHER SUMMARY AND IMPACTS

1.1 RAINFALL SITUATION

During the first ten days of April 2014, the greater part of Malawi received above average rainfall amounts (light blue colour on Map 1) except for Balaka and surrounding areas in the south and an area stretching from Kasungu to Nkhotakota in central Malawi (yellow and brown colours in Map 1). Heavy rains were recorded in northern Malawi particularly over highlands and along the lakeshore where Nkhata Bay Met in eight days recorded 531mm, followed by Chintheche Agric 220mm, Chikangawa Forest had recorded 217mm, Karonga Met received 139mm and Mzuzu Met 134mm. According to media reports heavy rains caused floods in Nkhata Bay district. Otherwise generally most areas in Malawi registered light to moderate rainfall amounts ranging from 0 to 80mm. More details are in Table 1 and Map 1.

Map 2 shows the cumulative rainfall performance across the country since the rainfall season started on 1st October 2013 up to 10th April 2014. The map shows that most areas in Malawi have received their seasonal average cumulative rainfall amounts (green colour on Map 2) with a few pockets of below average cumulative rainfall (yellow colour) centred around Balaka and Chikwawa districts in southern Malawi. For more details refer to Table 1 and Map 2.

1.2 AIR TEMPERATURE

Warm to temperatures were maintained over Malawi during the first ten days of April 2014. Mean daily maximum temperatures ranged from 23.2°C at Dedza to 32.5°C at Ngabu. The highest absolute maximum temperature for the period was still observed at Ngabu (36.8°C) while the lowest absolute minimum temperature was recorded at Bvumbwe (11.2°C) For more details see Table 2.

1.3 WIND SPEEDS

Mean wind speeds at a height of two metres above ground level had remained light and from variable direction. The mean daily wind speeds had ranged from 0.4 to 2.7 metres per second. The lowest mean wind speed was observed at Kasungu .while the highest mean wind speed was reported at Chileka Airport More details are in Table 2.

1.4 RELATIVE HUMIDITY

During the first ten days of April 2014, the amounts of moisture in the atmosphere had remained fairly good. The mean daily relative humidity values ranged from 70% at Salima to 88% at Mzuzu Airport. More details are on the Table 2. High relative humidity values promote incidences fungal diseases.

2. AGROMETEOROLOGICAL ASSESSMENT

During the first ten days of April 2014 wet weather had persisted over most areas as indicated by above average cumulative rainfall amounts. Below average rainfall amounts and dry conditions were only confined to a few places. The wet weather was good for growth and development of root and tuber crops as well as the late planted crops while dry conditions had facilitated harvesting and drying of matured crops. The rains had also increased prospects for residual moisture and irrigated farming. On the negative note the wet weather had hampered harvesting and drying of matured crops. Maize crop was mostly at drying stage and harvesting was in progress particularly in southern Malawi

The maize yield forecasting model estimates that during the 2013/14 farming season Malawi is likely to produce **3,283,676MTs** of maize from the rain-fed crop. This estimate is down by **18%** from first round estimate figure of **3,993,980MTs.** The drop is due to negative effects of low rainfall and prolonged dry spells in March as well as late start of the season and early cessation of the main rains

At national level the **f**ood security picture looks good. However household food shortages will still exist as some farming households particularly in Karonga, Balaka, Nsanje and some parts of Rumphi and Mzimba districts may not harvest enough maize to take them through to the next harvesting season.

3. PROSPECTS FOR 2013/14 RAINFALL SEASON

The rainfall outlook for October 2013 to March 2014 had suggested that ***Malawi would experience normal to above normal total rainfall amounts.*** However, a comparison of observations for the period and the 1971–2000 climate has shown that overall the country has experienced normal to below normal rainfall and most of the rainfall was received in January and February 2014 Meanwhile more rains are being received over northern Malawi.

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4. OUTLOOK FOR 11 TO 20 APRIL2014

Models for short and medium term weather forecasts suggest that over most parts of Malawi the main rains are tailing off. Meanwhile, series of high pressure systems passing through south coast of the sub-continent are expected to maintain moist air over some parts of Malawi. As a result occasional rainfall is expected to be confined to highlands and along the lakeshore during the second ten days of April 2014.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR 01 TO 10 APRIL 2014

STATION NAME	ACTUAL DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL (EXPECTED) RAINFALL mm	ACTUAL TOTAL AS PERCENTAGE OF NORMAL (EXPECTED) RAINFALL	TOTAL ACTUAL RAINFALL TO DATE mm	NORMAL (EXPECTED) RAINFALL TO DATE mm	ACTUAL TODATE AS PERCENTAGE OF NORMAL	RAINY DAYS ≥ 0.3 mm
SOUTHERN REGION							
Balaka Township	0.0	21.4	**0**	462.2	830.9	**56**	0
Bvumbwe Met.	29.5	30.7	**96**	900.7	1046.8	**86**	6
Chichiri Met.	50.5	29.0	**174**	865.3	1057.5	**82**	5
Chikwawa Boma	0.0	21.2	**0**	545.3	735.2	**74**	0
Chikweo Agric.	22.7	27.1	**84**	782.7	1028.2	**76**	2
Chileka Airport	30.2	20.0	**151**	619.4	846.9	**73**	2
Chingale Agric	7.5	25.9	**29**	740.0	889.1	**83**	1
Chiradzulu Agric	22.3	22.4	**100**	712.1	941.9	**76**	4
Mpilipili (Makanjila)	0.0	18.5	**0**	537.7	864.0	**62**	0
Makoka Met	51.1	30.7	**166**	768.7	935.0	**82**	2
Mangochi Met.	0.0	20.2	**0**	862.7	683.5	**126**	0
Masambanjati Agric	88.5	51.7	**171**	1053.5	1240.3	**85**	5
Mimosa Met.	103.6	63.8	**162**	1108.3	1331.8	**83**	6
Monkey Bay Met.	15.2	6.5	**234**	831.1	558.1	**149**	1
Mulanje Boma	129.1	82.2	**157**	1518.9	1606.3	**95**	4
Mwanza Boma	7.6	34.9	**22**	767.4	971.8	**79**	3
Namiasi Agric	0.0	4.6	**0**	546.5	737.6	**74**	0
Namwera Agric	43.1	34.5	**125**	817.8	1006.7	**81**	1
Nchalo	34.5	18.9	**183**	460.1	624.3	**74**	4
Neno Agric	50.6	36.3	**139**	880.1	1047.4	**84**	3
Ngabu Met.	18.1	17.9	**101**	615.3	722.7	**85**	5
Nsanje Boma	5.6	21.7	**26**	674.1	1022.2	**66**	1
Phalula Agric	0.0	14.3	**0**	387.1	799.1	**48**	0
Satemwa Tea Estate	67.0	46.5	**144**	1346.1	1024.9	**131**	5
Thyolo Boma	64.6	42.6	**152**	839.2	1091.4	**77**	5
Thyolo Met	43.2	30.7	**141**	1198.4	1137.8	**105**	5
Zomba RTC	13.0	42.0	**31**	997.9	1153.8	**86**	2
CENTRAL REGION							
Chitedze Met.	63.3	29.3	**217**	716.4	859.0	**83**	4
Dedza Met	19.3	25.6	**75**	901.5	904.8	**100**	4
Dowa Agric	21.8	24.5	**89**	725.9	859.9	**84**	5
Dwangwa Sugar Corp.	78.0	92.8	**84**	1078.9	1228.9	**88**	5
K.I.A Met	69.5	19.6	**355**	771.3	830.4	**93**	5
Kasungu Met	2.0	17.6	**11**	728.8	760.8	**96**	2
Madisi Agric	60.0	16.3	**368**	708.6	812.7	**87**	3
Mkanda Met	23.0	25.9	**89**	729.6	853.3	**86**	3
Mlangeni Njolomole	21.1	24.3	**87**	732.1	939.5	**78**	3
Mponela Agric	14.0	11.6	**121**	497.7	779.0	**64**	2
Nathenje Agric	88.5	44.0	**201**	743.0	840.3	**88**	4
Nkhotakota Met	8.5	97.1	**9**	1590.9	1341.7	**119**	1
Salima Met	5.5	44.8	**12**	997.5	1168.2	**85**	2
Dedza RTC	30.5	22.5	**136**	832.8	967.5	**86**	4
NORTHERN REGION							
Bolero Met	35.9	18.2	**192**	540.3	614.1	**88**	6
Bwengu Agric.	49.3	21.7	**227**	571.7	733.9	**78**	5
Chikangawa forest	217.0	70.3	**309**	1713.2	1039.0	**165**	9
Chitipa Met	23.1	37.9	**61**	815.6	918.4	**89**	6
Chintheche Agric	220.4	146.7	**150**	1739.0	1472.3	**118**	6
Euthini Agric.	46.3	22.6	**205**	804.9	748.1	**108**	2
Karonga Met.	138.8	88.0	**158**	808.9	895.7	**90**	9
Mbawa Res. Stn	2.6	16.5	**16**	615.9	781.6	**79**	2
Mzimba Met	29.9	23.5	**127**	875.1	862.3	**101**	6
Mzuzu Met.	134.6	89.2	**151**	1049.6	965.4	**109**	8
NkhataBay Met.	530.9	133.0	**399**	1751.3	1215.9	**144**	8
Zombwe Agric	69.4	36.0	**193**	838.7	716.9	**117**	5

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 01 TO 10 APRIL 2014

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED (m/s)	RH (%)	EVAP (mm)
KARONGA ADD							
Chitipa	25.7	17.7	29.0	15.5	2.6	81	N/A
Karonga	29.0	20.0	30.7	18.5	0.8	79	N/A
Bolero	26.6	17.4	30.0	16.5	N/A	80	N/A
Mzuzu	23.5	16.8	26.0	15.6	1.4	88	N/A
Mzimba	25.7	16.1	28.1	15.6	1.0	77	N/A
Nkhata Bay	28.3	20.6	31.7	19.8	0.7	86	N/A
Kasungu	28.5	N/A	30.8	N/A	0.4	72	N/A
KIA	27.4	16.3	27.8	13.2	1.6	77	3.7
Chitedze	27.3	16.1	30.1	14.2	0.8	76	N/A
Dedza	23.2	14.5	26.1	11.9	1.7	N/A	N/A
SALIMA ADD							
Salima	29.9	22.2	32.1	19.5	2.6	70	N/A
Nkhotakota	28.2	21.5	30.0	19.9	2.3	73	N/A
MACHINGA ADD							
Makoka	26.5	16.6	31.0	15.4	1.1	80	N/A
Monkey Bay	29.9	21.6	32.5	19.5	2.0	71	N/A
BLANTYRE ADD							
Chileka	27.7	18.6	31.0	17.0	2.7	72	N/A
Chichiri	25.1	16.9	30.0	14.4	1.5	74	N/A
Bvumbwe	24.4	13.0	28.8	11.2	1.7	77	N/A
Mimosa	28.8	17.6	34.1	14.7	0.8	79	4.3
SHIRE VALLEY ADD							
Ngabu	32.5	21.7	36.8	19.8	1.4	78	N/A

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