Malawi 10-Day Rainfall & Agrometeorological Bulletin

Department of Climate Change and Meteorological Services

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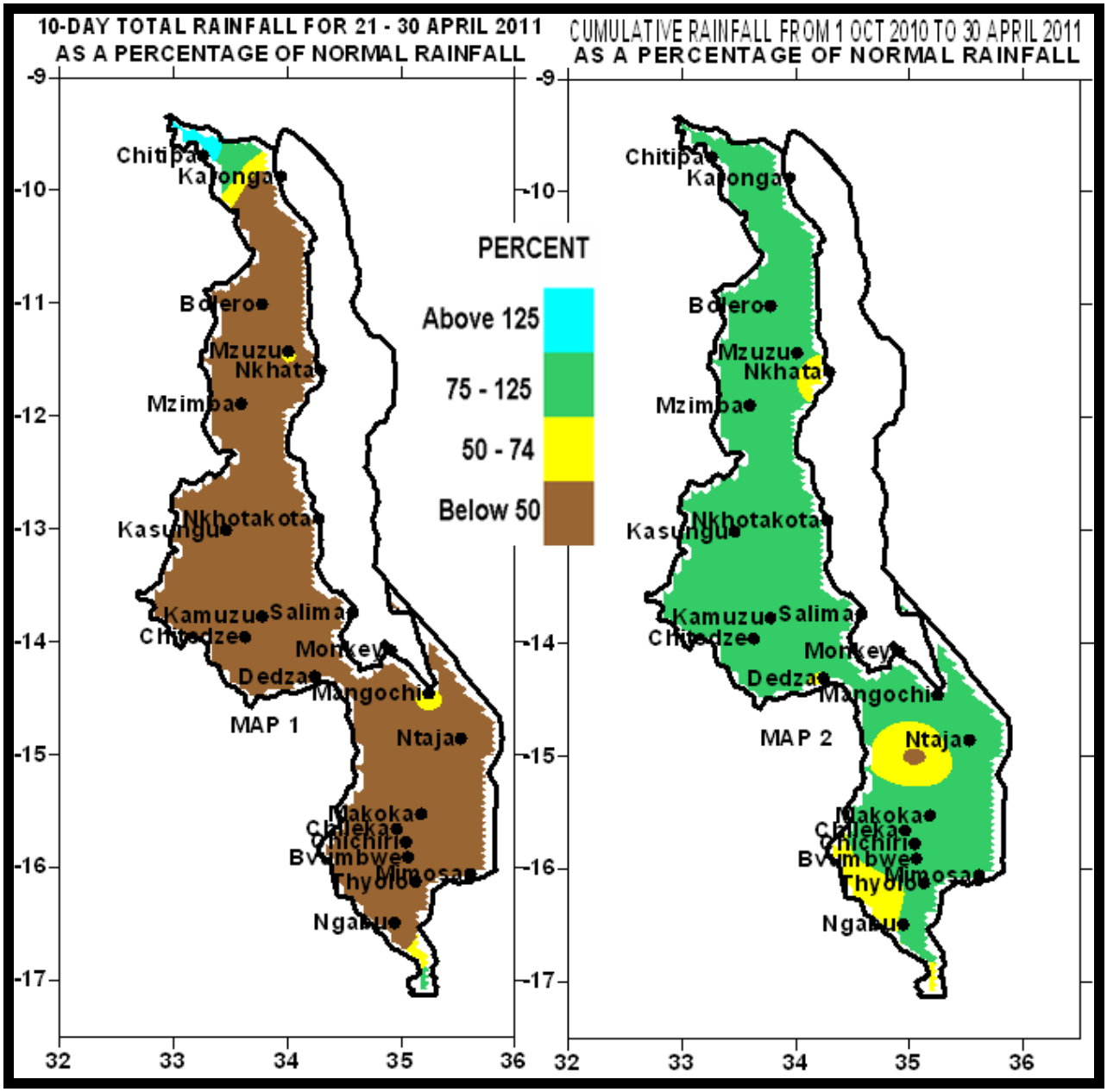
HIGHLIGHTS

- Dry conditions prevailed in the last ten days of April…
- Average seasonal rainfall amounts experienced in 2010/11 season…
- Occasional light rainfall expected in May and June 2011……



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the last ten days of April 2011, as expected 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 north, highlands and along the lakeshore. Details are on Table 1. Most areas registered nil rainfall for the entire period.

Cumulative rainfall performance from October 2010 up to 30 April, 2011 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 along Shire River including Chikhwawa and Balaka districts. The rainfall deficits have been mainly due to prolonged dry spells in January and February 2011.

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1.2 MEAN AIR TEMPERATURE

During the last ten days of April 2011, Malawi experienced warm to hot temperatures with over eight hours of sunshine during the day and cool to mild temperatures during the night and early morning. Reported mean daily maximum temperatures ranged from 25°C over highlands such as at Mzuzu to 35°C over low altitude areas such as Ngabu in Chikwawa. The highest absolute maximum temperaure was registered at Ngabu (39°C) while the lowest absolute minimum temperature was 12°C, reported at Kamuzu International Airport. 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 Chitipa and Chileka (2.6 m/s or 9.4 Km/hr.) while the lowest wind speed was recorded at Nkhata Bay (0.6 m/s or 2.2 Km/hr.). More details are in Table 2.

1.5 MEAN RELATIVE HUMIDITY

Mean Relative Humidity values continued to decline over most areas as dry weather crept in. The mean daily values ranged from 57% at Ntaja to 79% 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 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 2010/11 growing season has been generally good with no major breaks particularly in central and northern Malawi. This resulted in good crop stand in most fields and good crop yields. However, crop production in the south has been negatively affected by prolonged dry spells in January and February. Therefore localised food shortages in some districts in the south are inevitable.

Results from the Agrometeorological Maize Yield assessment model suggest that despite prolonged dry spells which negatively affected crops in January and 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. OUTLOOK FOR MAY AND JUNE 2011

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 2011.

THIS IS THE LAST BULLETIN FOR 2010-11 RAINFALL SEASON

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 21 – 30 APRIL 2011 AT SELECTED STATION

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS %	TOTAL TO DATE	NORMAL TO DATE	TOTAL TODATE AS %	RAINY DAYS
SOUTHERN REGION	mm	mm	NORMAL	mm	mm	NORMAL	≥ 0.3 mm
Balaka Township	0.0	6.8	0	374.0	849.5	44	0
Bvumbwe Met.	3.3	16.5	20	1107.7	1082.9	102	1
Chichiri Met.	0.0	16.7	0	1059.4	1095.3	97	0
Chileka Airport	0.0	8.8	0	952.5	872.4	109	0
Chingale Agric	0.0	5.7	0	807.1	910.3	89	0
Kasinthula Res. Stn.	0.0	10.7	0	735.3	708.4	104	0
Liwonde Township	0.0	5.1	0	431.0	804.7	54	0
Lujeri Tea Estate	4.0	63.0	6	1767.7	1983.7	89	1
Mpilipili (Makanjila)	0.0	4.8	0	833.6	877.1	95	0
Makhanga Met	3.5	5.9	59	699.4	708.8	99	1
Makoka Met	0.0	10.4	0	1145.4	959.5	119	0
Mangochi Met.	3.4	5.0	68	680.5	697.9	98	1
Mimosa Met.	2.3	36.9	6	1100.5	1412.3	78	1
Monkey Bay Met.	0.0	1.5	0	721.1	562.9	128	0
Namiasi Agric	0.0	1.7	0	637.1	742.5	86	0
Naminjiwa Agric	0.0	5.4	0	879.6	943.7	93	0
Nchalo Sucoma	0.0	8.6	0	435.2	643.1	68	0
Neno Agric	0.0	14.5	0	1007.1	1083.1	93	0
Ngabu Met.	0.0	11.6	0	574.6	747.9	77	0
Nsanje Boma	15.2	18.3	83	712.1	1066.7	67	2
Ntaja Met.	0.0	15.1	0	890.5	887.5	100	0
Satemwa Tea Est. No.1	0.0	17.9	0	859.8	1067.2	81	0
Thuchila Agric	0.0	7.7	0	711.3	863.9	82	0
Thyolo Boma	2.3	24.7	9	948.2	1148.4	83	1
Thyolo Met	0.0	16.5	0	1254.2	1173.9	107	0
Zomba RTC	0.0	13.6	0	1116.8	1187.1	94	0
CENTRAL REGION							
Chitedze Met.	0.3	6.5	5	730.6	874.5	84	0
Dedza Met	0.0	8.6	0	674.0	923.7	73	0
Dwangwa Sugar Corp.	1.5	33.3	5	1118.8	1320.4	85	1
K.I.A Met	0.0	6.1	0	728.1	838.1	87	0
Kasungu Met	0.0	4.0	0	581.3	770.4	75	0
Malomo Agric	2.5	14.9	17	837.4	825.8	101	1
Mchinji Boma	0.0	10.2	0	856.5	1003.4	85	0
Mtakataka Airwing	0.0	2.4	0	631.2	806.3	78	0
Nathenje Agric	0.0	13.2	0	758.9	865.0	88	0
Nkhotakota Met	0.1	34.5	0	1318.6	1432.3	92	0
Ntcheu - Nkhande	0.0	7.2	0	882.6	1035.0	85	0
Ntchisi Boma	0.0	12.1	0	1097.5	1225.9	90	0
Salima Met	0.0	9.2	0	1049.7	1205.0	87	0
Dedza RTC	0.0	5.1	0	732.7	979.0	75	0
NORTHERN REGION							
Bolero Met	0.0	4.2	0	501.0	629.1	80	0
Bwengu Agric.	0.0	7.4	0	625.3	758.8	82	0
Chikangawa forest	0.0	22.0	0	871.6	1090.5	80	0
Chitipa Met	6.1	4.2	145	726.4	940.0	77	2
Karonga Met.	10.7	25.9	41	1168.4	980.8	119	2
Mbawa Res. Stn	0.0	7.3	0	741.1	801.2	92	0
Mzimba Met	0.0	9.1	0	787.6	885.3	89	0
Mzuzu Met.	27.9	43.6	64	843.4	1074.6	78	6
NkhataBay Met.	2.8	81.9	3	953.9	1393.8	68	4
Vinthukutu Agric	0.0	53.3	0	1437.8	1120.5	128	0
Zombwe Agric	0.0	8.5	0	556.4	744.4	75	0

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 21 – 30 APRIL 2011

	TEMP (°C)	TEMP (°C)	MAX (°C)	MIN (°C)	SPEED m/s	%	SHINE HOURS	mm per day	mm per day	TION cal cm-² p/day
BVUMBWE	26.2	N/A	28.8	N/A	2.1	72	N/A	3.0	2.5	4.0
CHILEKA	29.1	18.8	31.5	17.2	2.6	70	9.4	7.2	5.7	10.1
CHITEDZE	28.4	15.7	29.4	14.4	0.7	70	9.2	6.2	4.8	9.7
CHITIPA	26.0	16.9	27.0	16.1	2.6	76	N/A	N/A	N/A	N/A
K I A	27.5	14.4	28.5	11.8	1.5	65	10.8	6.7	5.1	10.7
KARONGA	30.6	22.7	32.0	21.0	1.5	71	8.3	7.7	6.1	10.2
KASUNGU	29.6	15.7	31.1	14.0	1.3	62	N/A	N/A	N/A	N/A
MAKOKA	28.1	16.6	29.3	15.6	1.0	72	9.2	6.4	5.0	9.9
MANGOCHI	31.9	20.2	33.9	17.1	1.3	72	10.3	7.5	5.9	10.5
MIMOSA	30.8	17.0	34.4	15.6	1.0	69	N/A	N/A	N/A	N/A
MONKEY BAY	31.5	21.5	32.5	20.1	1.5	66	10.5	7.7	6.1	10.6
MZIMBA	27.3	15.6	28.8	13.9	1.3	64	10.6	6.5	5.0	10.4
MZUZU	24.8	14.6	26.2	12.5	1.3	79	8.9	5.6	4.3	9.3
NGABU	35.2	20.6	38.5	19.1	2.2	68	N/A	N/A	N/A	N/A
NKHATA BAY	31.2	18.7	32.2	17.4	0.6	75	8.6	6.3	5.0	9.2
NKHOTAKOTA	29.1	21.2	29.9	20.2	1.8	69	10.0	7.5	5.9	10.2
NTAJA	29.4	19.8	31.6	18.4	1.3	57	8.9	7.0	5.5	10.0
SALIMA	30.9	20.8	32.0	19.0	1.8	67	10.2	7.3	5.8	10.4

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