



Malawi 10-Day Rainfall & Agrometeorological Bulletin

Department of Climate Change and Meteorological Services



Period: 11 – 20 April 2011

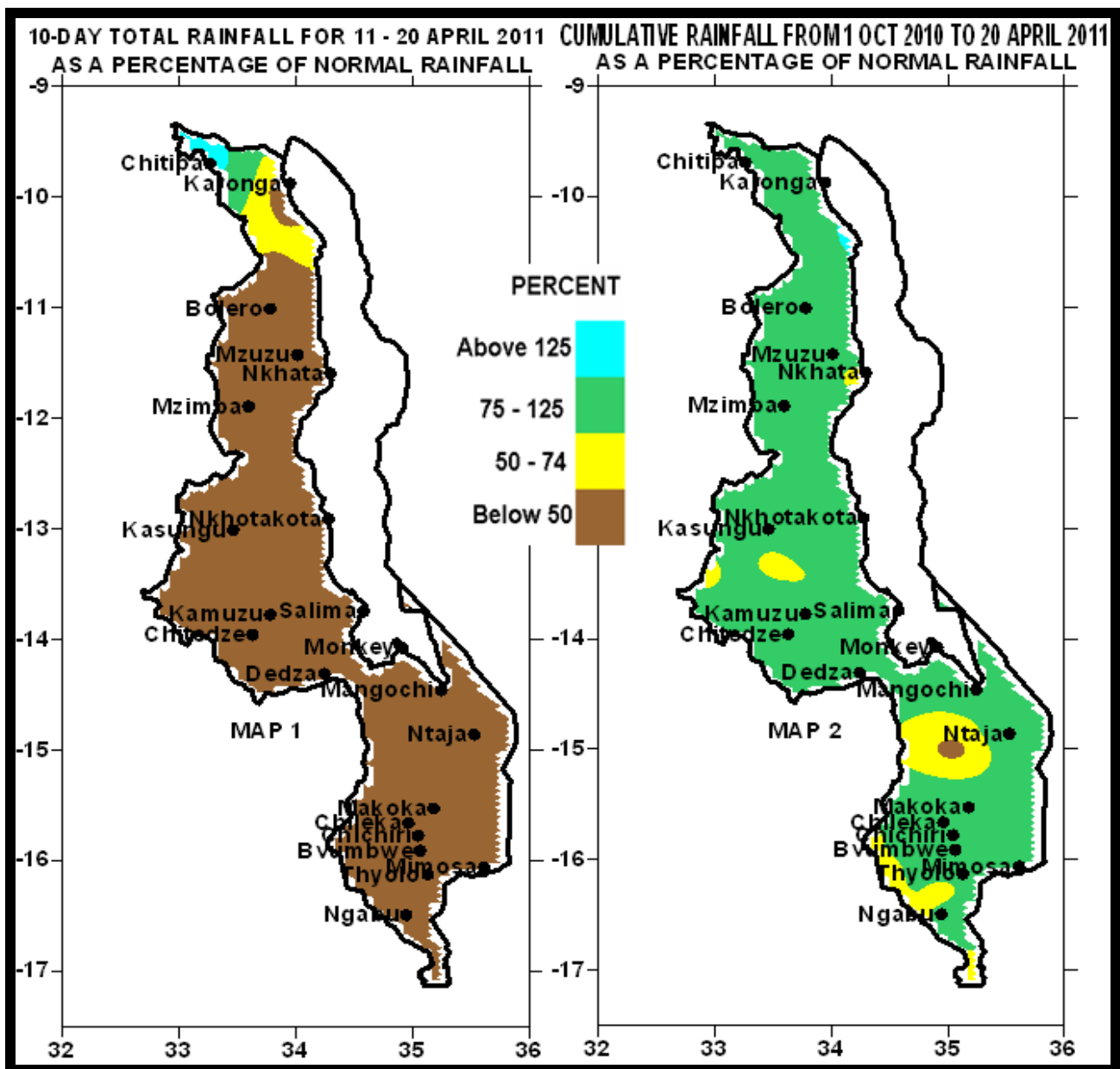
Season: 2010/2011

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HIGHLIGHTS

- ❖ Dry conditions experienced over most parts of Malawi...
- ❖ Crops were mostly at drying and harvesting stages ...
- ❖ Mostly dry weather expected during 21 - 30 April 2011...



1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the second ten days of April 2011, rainfall was confined to very few areas mostly over the north and dry conditions were experienced over most parts of Malawi as the main rainfall season comes to an end. Stations that registered ten day cumulative rainfall amounts of more than 20mm during the period included Dwangwa (23mm), Chitipa Met (26mm), Mzuzu (26mm) and Vinthukutu Agric in Karonga (49mm). Otherwise many stations reported little or nil rainfall during the entire ten day period. More details are in Table 1.

Cumulative rainfall situation Map for the period from 1st October 2010 up to 20 April 2011 shows that a greater part of Malawi had attained between 75 and 125 percent of the expected rainfall amounts for the period (green colour on Map 2) with just a few pockets of below average cumulative rainfall amounts (yellow and brown colours on Map 2).

1.2 MEAN AIR TEMPERATURE

During the period 11 to 20 April 2011 warm to hot temperatures were reported over Malawi. Daily average maximum temperatures ranged from around 24°C over highlands to 33°C at Ngabu in Shire Valley. The highest absolute maximum temperature was 35°C recorded at Ngabu in Chikwawa. The lowest daily average minimum temperatures ranged from 12 to 21°C while the absolute minimum temperatures at Kamuzu International Airport went as low as 9°C. See details in Table 2.

1.4 MEAN WIND SPEEDS

Daily average wind speeds recorded at a height of two meters above the ground continued to be light. The highest average wind speed was 2.7m/s or 9.7Km/hr. reported at Chileka International Airport in Blantyre. More details are in Table 2.

1.5 MEAN RELATIVE HUMIDITY

The average daily relative humidity values continued to decrease during the period 11 to 20 April 2011 implying the atmosphere was drier than the previous ten day periods. Daily average relative humidity values ranged from 66 to 85 percent.

2. AGROMETEOROLOGICAL ASSESSMENT

During the period 11 to 20 April, 2011, the dry weather that covered most parts of Malawi facilitated harvesting and drying of matured crops. The general crop stand in the fields particularly in the centre and north was generally reported in good condition. Maize crop which is the staple food crop for Malawi was reported mostly at drying and harvesting stages. Harvesting of matured crops was in progress in most parts of Malawi. This has greatly improved household food security in Malawi. Crop reports from the Ministry of Agriculture and Food Security indicated that prolonged dry spells in February have negatively impacted crop yields particularly along the Shire River from Mangochi downstream to Nsanje district. Indicators from the Crop Water Requirement Satisfaction Index (WRSI) model suggest that despite the prolonged dry spells that have been experienced particularly in southern Malawi harvest prospects at national level this season look better than last season.

3. PROSPECTS FOR APRIL TO JUNE 2011

As the main rainfall season comes to an end, incursions of cool and moist air from the Indian Ocean will periodically bring chiperoni weather over the country. Therefore, occasional patches of rain particularly over highlands and along the lakeshore districts during May and June 2011.

4. OUTLOOK 21 – 30 APRIL 2011

Medium range forecast suggest that during the last ten days of April 2011 mostly dry weather will cover most parts of Malawi and light rainfall will be confined to highlands and along the lakeshore.

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 11 – 20 APRIL 2011 AT SELECTED STATION

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE	NORMAL TO DATE	TOTAL TODATE AS % NORMAL	RAINY DAYS ≥ 0.3 mm
SOUTHERN REGION							
Bvumbwe Met.	0.0	19.6	0	1104.4	1066.4	104	0
Chichiri Met.	0.0	21.1	0	1059.4	1078.6	98	0
Chikwawa Boma	0.0	8.1	0	554.0	743.3	75	0
Chikweo Agric.	0.0	7.9	0	799.7	1036.1	77	0
Chileka Airport	0.0	16.7	0	952.5	863.6	110	0
Chingale Agric	0.0	15.5	0	807.1	904.6	89	0
Chiradzulu Agric	0.0	11.9	0	821.9	953.8	86	0
Kasinthula Res. Stn.	0.0	12.4	0	735.3	697.7	105	0
Lujeri Tea Estate	6.0	70.2	9	1763.7	1920.7	92	3
Mpilipili (Makanjila)	0.0	8.3	0	833.6	872.3	96	0
Makhanga Met	0.0	10.5	0	695.9	702.9	99	0
Makoka Met	0.0	14.1	0	1145.4	949.1	121	0
Mangochi Met.	0.0	9.4	0	677.1	692.9	98	0
Mimosa Met.	2.3	43.6	5	1098.2	1375.4	80	0
Monkey Bay Met.	0.0	3.3	0	721.1	561.4	128	0
Mpemba Vet	0.0	18.5	0	1348.8	1091.1	124	0
Mulanje Boma	0.0	52.8	0	1554.3	1659.1	94	0
Mwanza Boma	0.0	16.7	0	774.1	988.5	78	0
Namiasi Agric	0.0	3.2	0	637.1	740.8	86	0
Naminjiwa Agric	0.0	9.6	0	790.0	938.3	84	0
Namwera Agric	0.0	20.4	0	847.7	1027.1	83	0
Nchalo Sucoma	0.0	10.2	0	435.2	634.5	69	0
Neno Agric	0.0	21.2	0	1007.1	1068.6	94	0
Ngabu Met.	0.0	13.6	0	574.6	736.3	78	0
Nsanje Boma	1.9	26.2	7	696.9	1048.4	66	1
Ntaja Met.	0.0	14.0	0	890.5	872.4	102	0
Phalula Agric	0.0	12.7	0	598.8	811.8	74	0
Satemwa Tea Est. No.1	0.0	24.4	0	859.8	1049.3	82	0
Thuchila Agric	0.0	15.6	0	711.3	856.2	83	0
Thyolo Boma	0.0	32.3	0	945.9	1123.7	84	0
Thyolo Met	0.0	19.6	0	1254.2	1157.4	108	0
CENTRAL REGION							
Chileka Namitete	0.0	17.8	0	391.9	907.3	43	0
Chitedze Met.	0.0	9.0	0	730.3	868.0	84	0
Dwangwa Sugar Corp.	23.0	58.2	40	1117.3	1287.1	87	4
K.I.A Met	0.0	1.6	0	728.1	832.0	88	0
Lifuwu	0.0	41.4	0	988.1	1216.6	81	0
Lisasadzi	0.0	13.4	0	607.4	805.5	75	0
Malomo Agric	0.0	2.5	0	757.4	810.9	93	0
Madisi Agric	0.0	11.6	0	534.9	824.3	65	0
Mtakataka Airwing	0.0	10.5	0	631.2	803.9	79	0
Nathenje Agric	0.0	11.5	0	758.9	851.8	89	0
Ntchisi Boma	0.0	24.8	0	1097.5	1213.8	90	0
Salima Met	0.0	27.6	0	1049.7	1195.8	88	0
Dedza RTC	0.0	6.4	0	690.4	973.9	71	0
NORTHERN REGION							
Bolero Met	1.4	10.8	13	501.0	624.9	80	2
Chitipa Met	25.9	17.4	149	720.3	935.8	77	5
Karonga Met.	11.0	59.2	19	1157.7	954.9	121	6
Lupembe	0.0	36.0	0	596.1	809.9	74	0
Mzimba Met	0.0	13.9	0	787.6	876.2	90	0
Mzuzu Met.	25.5	65.6	39	815.5	1031.0	79	4
NkhataBay Met.	9.1	96.0	9	951.1	1311.9	72	3
Vinthukutu Agric	48.9	73.5	67	1437.8	1067.2	135	6

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 11 – 20 APRIL 2011

STATION	MAX TEMP	MIN TEMP	ABS MAX	ABS MIN	WIND SPEED	RH	SUN SHINE HOURS	Eo mm per day	Et mm per day	RAD- TION cal cm ⁻² p/day
	(°C)	(°C)	(°C)	(°C)	m/s	%				
BOLERO	28.2	16.8	29.4	14.8	1.0	68	8.3	6.1	4.7	9.1
BVUMBWE	23.7	N/A	26.4	N/A	2.2	76	N/A	N/A	N/A	N/A
CHICHIRI	24.2	15.7	26.9	14.3	0.9	72	N/A	N/A	N/A	N/A
CHILEKA	25.9	17.6	29.6	16.7	2.7	71	10.5	7.2	5.6	11.0
CHITEDZE	26.4	12.8	27.9	13.1	0.7	71	9.0	5.9	4.5	9.8
CHITIPA	25.8	17.0	27.2	16.1	1.9	76	7.5	6.4	5.0	9.6
K I A	25.8	12.1	27.5	8.9	1.6	67	10.1	6.3	4.8	10.5
KARONGA	29.5	21.6	31.7	20.7	1.5	76	8.3	7.4	5.8	10.1
MANGOCHI	29.3	19.5	31.7	17.4	1.4	69	10.1	7.3	5.7	10.6
MONKEY BAY	29.7	20.4	31.7	18.6	1.9	66	10.5	7.7	6.0	10.8
MZIMBA	26.4	15.8	27.5	14.1	1.5	70	7.9	5.9	4.6	9.0
MZUZU	23.7	15.9	25.3	12.7	1.7	85	7.5	5.3	4.1	8.7
NGABU	33.0	19.0	35.1	16.5	1.9	66	N/A	N/A	N/A	N/A
NTAJA	27.4	18.6	29.6	16.6	1.5	73	10.1	7.2	5.6	11.1
SALIMA	28.6	20.7	30.3	18.0	2.4	66	11.0	5.1	3.8	11.1

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