



Malawi 10-Day Rainfall & Agrometeorological Bulletin

Department of Climate Change and Meteorological Services



Period: 21 – 30 April 2010

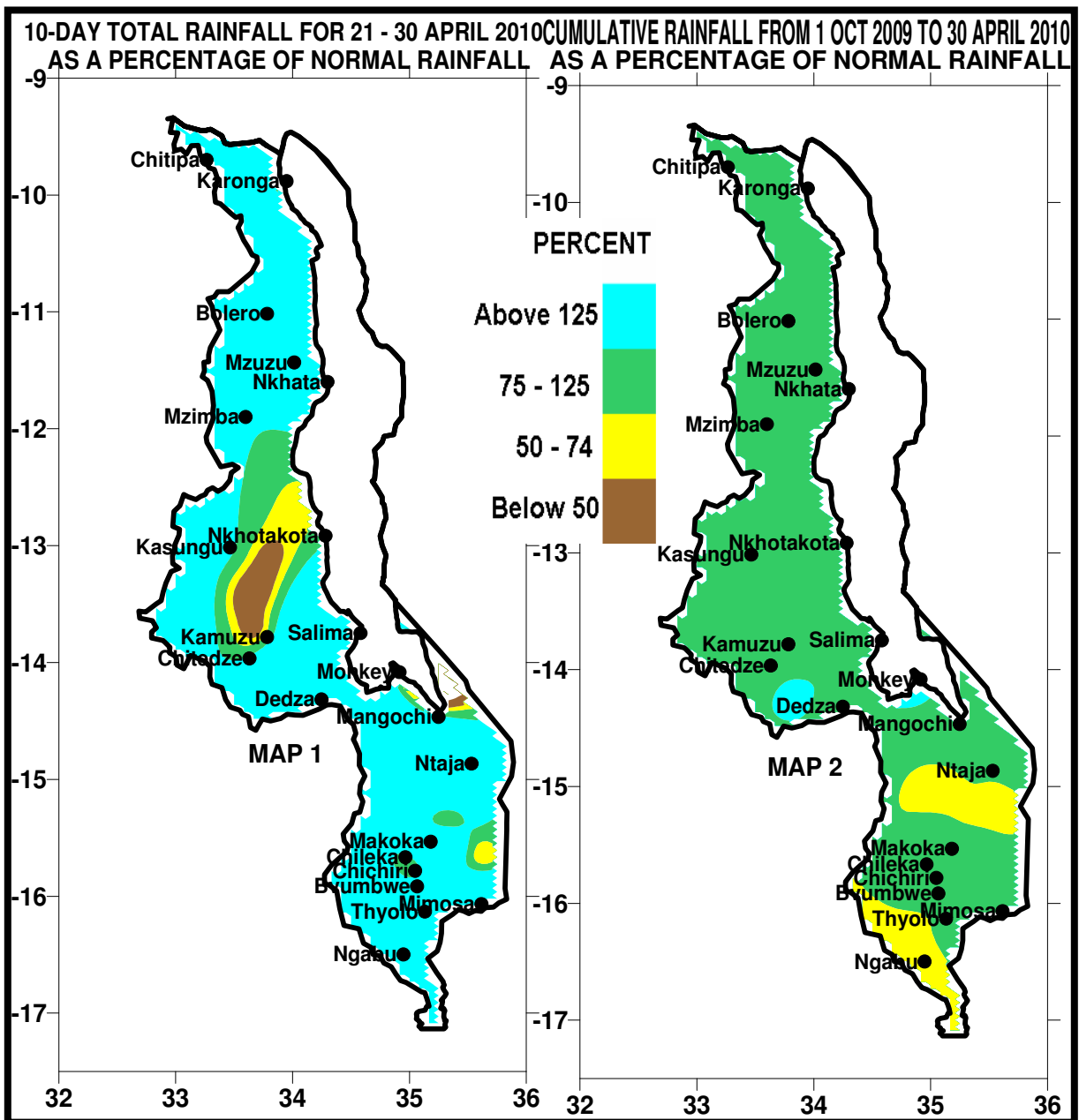
Season: 2009/2010

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HIGHLIGHTS

- Malawi was fairly wet during 21 – 30 April 2010...
- Normal seasonal rainfall amounts experienced during 2009/10...
- Occasional light rains expected in May and June 2010...



1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the last ten days of April 2010, fairly moist Easterly airflow covered most parts of Malawi. As a result light to moderate rainfall amounts were deposited over most areas.

30th April marks the end of the main rainfall season in Malawi and usually from mid April the main rain belt is expected to shift to Tanzania. As a result Malawi is expected to start drying up from the south and progressively moving northwards. However, rainfall figures for last ten days of April 2010 suggest that most parts of Malawi have been abnormally wet (light blue colour on Map 1). Some highlands in the south and north experienced rainfall amounts in excess of 150mm. Such areas in the south included Lujeri (344mm) and Mimosa (180mm) in Mulanje while in the north such rainfall was reported at Mzuzu (123mm) and Nkhata Bay Met (205mm).

1.2 MEAN AIR TEMPERATURE

In the last ten days of April 2010, most areas in Malawi experienced warm to hot temperatures. As usual low altitude areas continued to register high temperatures while lower temperatures were confined to higher altitudes. Ngabu in Shire valley reported the highest absolute maximum temperature of 36°C and the lowest absolute minimum temperature was reported at Dedza (13°C). More details are in Table 2.

1.4 MEAN WIND SPEEDS

Mean wind speeds continued to be generally low during the last ten days of April 2010. The lowest mean wind speed was 0.8m/s (2.9 Km/h), reported at Nkhata Bay while the highest wind speed was 3.2m/s (11.5 Km/h) recorded at Salima. More details are in Table 2.

1.5 MEAN RELATIVE HUMIDITY

The presence of moist Easterly airflow led to high Relative Humidity (RH) values that were reported over Malawi. The average daily values ranged from 64% at Bolero in Rumphi to 87% at Bvumbwe in Thyolo (Table 2).

2. AGROMETEOROLOGICAL ASSESSMENT

The fairly wet weather that was experienced in the last ten days of April, 2010 continued to support growth and development of root and tuber crops and also replenished water resources. On the other hand, the wet weather hindered harvesting and drying of matured crops and this is likely to increase field losses of cereal crops.

Results from the FAO Crop Water Requirement Satisfaction Index (WRSI) model which is run by the Department of Climate Change and Meteorological Services (DCCMS) suggest that despite prolonged dry spells which affected the whole country, Malawi is set to realize another maize production surplus year. The overall maize production estimates from the model is put at **3,266,956 Metric Tons**. However, household food shortages are still expected in some districts which were most hit by prolonged dry spells particularly Chikhwawa and Nsanje.

Maize has reached drying and harvesting stages and many farmers had started harvesting matured crops.

3. BRIEF OVERVIEW OF 2009-10 RAINFALL SEASON

During 2009-10 rainfall season El Niño conditions have affected normal rainfall patterns over Malawi. The rains started early in some districts and late in others. The distribution and amount of the rainfall especially in the south has been poor. Prolonged dry spells caused crops failure. The worse affected districts include Nsanje, Chikhwawa and Balaka in southern Malawi.

Cumulative rainfall performance from October 2009 up to 30 April, 2010 indicated that during 2009/10 rainfall season the greater part of Malawi had received normal rainfall amounts (green colour on Map 2) and localised rainfall deficits existed in Balaka, Chikhwawa and Nsanje districts in southern Malawi (yellow colour on map 2).

4. OUTLOOK FOR MAY & JUNE 2010

A series of high pressure systems are expected to periodically induce cool and moist air from the Indian Ocean into Malawi during winter season. Therefore, occasional light rains are expected particularly over highlands and along the Lakeshore during the months of May and June 2010.

THIS IS THE LAST 10-DAY BULLETIN FOR 2009-10 RAINFALL SEASON

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 21 – 30 APRIL 2010 AT SELECTED STATIONS

STATION NAME	DEKADAL TOTAL RAINFALL (mm)	DEKADAL NORMAL RAINFALL (mm)	RAINFALL DEKADAL TOTAL (%)	TOTAL TO DATE (mm)	NORMAL TO DATE (mm)	RAINFALL TOTAL TODATE (%)	RAINY DAYS ≥ 0.3 mm
SOUTHERN REGION							
Balaka Township	40.0	6.8	588	438.5	849.5	52	2
Bvumbwe Met.	30.2	16.5	183	1018.2	1082.9	94	7
Chichiri Met.	16.1	16.7	96	1240.4	1095.3	113	5
Chikwawa Boma	35.5	6.9	514	568.8	750.2	76	3
Chikweo Agric.	22.2	9.6	231	866.0	1045.7	83	1
Chileka Airport	3.6	8.8	41	827.8	872.4	95	3
Chingale Agric	5.3	5.7	93	729.2	910.3	80	2
Kasinthula Res. Stn.	40.7	10.7	380	918.2	708.4	130	2
Lujeri Tea Estate	344.2	63.0	546	1778.5	1983.7	90	9
Mpilipili (Makanjila)	0.0	4.8	0	616.7	877.1	70	0
Makoka Met	58.0	10.4	558	1035.9	959.5	108	4
Mangochi Met.	7.0	5.0	140	787.6	697.9	113	2
Mimosa Met.	179.8	36.9	487	1196.8	1412.3	85	9
Monkey Bay Met.	0.0	1.5	0	878.1	562.9	156	0
Mpemba Vet	22.4	11.3	198	1375.7	1102.4	125	2
Namiasi Agric	0.0	1.7	0	574.1	742.5	77	0
Nchalo	27.0	8.6	314	444.3	643.1	69	2
Neno Agric	35.0	14.5	241	827.2	1083.1	76	3
Ngabu Met.	20.1	11.6	173	490.0	747.9	66	2
Nsanje Boma	29.0	18.3	158	661.3	1066.7	62	2
Ntaja Met.	44.2	15.1	293	683.1	887.5	77	3
Thyolo Met	86.0	16.5	521	1038.5	1173.9	88	8
CENTRAL REGION							
Chileka Namitete	19.0	13.9	137	706.8	921.2	77	1
Chitedze Met.	7.9	6.5	122	878.0	874.5	100	4
Dedza Met	45.5	8.6	529	965.9	923.7	105	4
Dwangwa	23.0	33.3	69	1121.6	1320.4	85	3
K.I.A Met	4.7	6.1	77	653.5	838.1	78	3
Kasungu Met	5.9	4.0	148	775.8	770.4	101	1
Malomo Agric	2.6	14.9	17	743.3	825.8	90	1
Madisi Agric	0.0	3.6	0	742.1	827.9	90	0
Mchinji Boma	37.2	10.2	365	1019.8	1003.4	102	5
Mkanda Met	24.8	7.1	349	1055.0	863.8	122	3
Mponela Agric	1.0	2.6	38	962.0	786.9	122	1
Mtakataka Airwing	8.7	2.4	363	1114.1	806.3	138	2
Nathenje Agric	60.0	13.2	455	1118.0	865.0	129	2
Nkhotakota Met	34.8	34.5	101	1444.2	1432.3	101	4
Ntcheu - Nkhande	29.3	7.2	407	1057.9	1035.0	102	3
Salima Met	73.8	9.2	802	1226.2	1205.0	102	2
Dedza RTC	43.5	5.1	853	1070.3	979.0	109	4
NORTHERN REGION							
Bolero Met	26.8	4.2	638	628.7	629.1	100	5
Bwengu Agric.	48.6	7.4	657	615.2	758.8	81	5
Chitipa Met	22.7	4.2	540	1039.2	940.0	111	4
Karonga Met.	4.5	25.9	17	841.7	980.8	86	0
Mzimba Met	12.8	9.1	141	620.8	885.3	70	3
Mzuzu Met.	123.1	43.6	282	1163.4	1074.6	108	6
NkhataBay Met.	205.4	81.9	251	1272.8	1393.8	91	7
Zombwe Agric	22.2	8.5	261	643.5	744.4	86	2

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 21 – 30 APRIL 2010

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED (m/s)	RELATIVE HUMIDITY (%)
BOLERO	28.0	17.5	N/A	N/A	N/A	64
BVUMBWE	23.0	15.4	27.8	13.5	2.6	87
CHICHIRI	27.2	17.4	28.6	15.1	1.2	84
CHILEKA	25.8	19.2	30.8	17.8	2.6	82
CHITEDZE	25.8	16.9	29.0	15.3	0.9	79
CHITIPA	27.1	18.1	29.1	17.1	3.0	71
DEDZA	22.2	15.3	25.3	13.0	1.1	83
K I A	25.1	15.3	27.9	14.0	1.9	77
KARONGA	33.2	22.8	34.3	21.5	2.6	62
KASUNGU	27.5	17.7	30.3	16.7	1.4	72
MAKOKA	25.2	17.8	28.8	16.3	1.6	84
MANGOCHI	N/A	21.6	N/A	20.6	1.9	79
MIMOSA	27.5	19.4	31.5	17.2	1.7	84
MONKEY BAY	30.9	21.9	33.0	20.4	2.1	66
MZIMBA	26.0	17.4	28.9	16.0	1.4	76
MZUZU	24.2	17.9	27.5	17.0	2.0	85
NGABU	30.7	22.1	35.7	20.2	1.6	75
NKHATA BAY	29.7	20.6	32.7	19.5	0.8	81
NTAJA	24.7	20.4	31.2	18.0	1.7	82
SALIMA	28.4	22.6	32.3	21.6	3.2	71

Glossary of some terms on this table

- 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 (m/s) to Kilometers per hour (Km/h) = m/s x 3.6