



# Malawi 10-Day Rainfall & Agrometeorological Bulletin

Department of Climate Change and Meteorological Services



Period: 21 – 31 March 2012

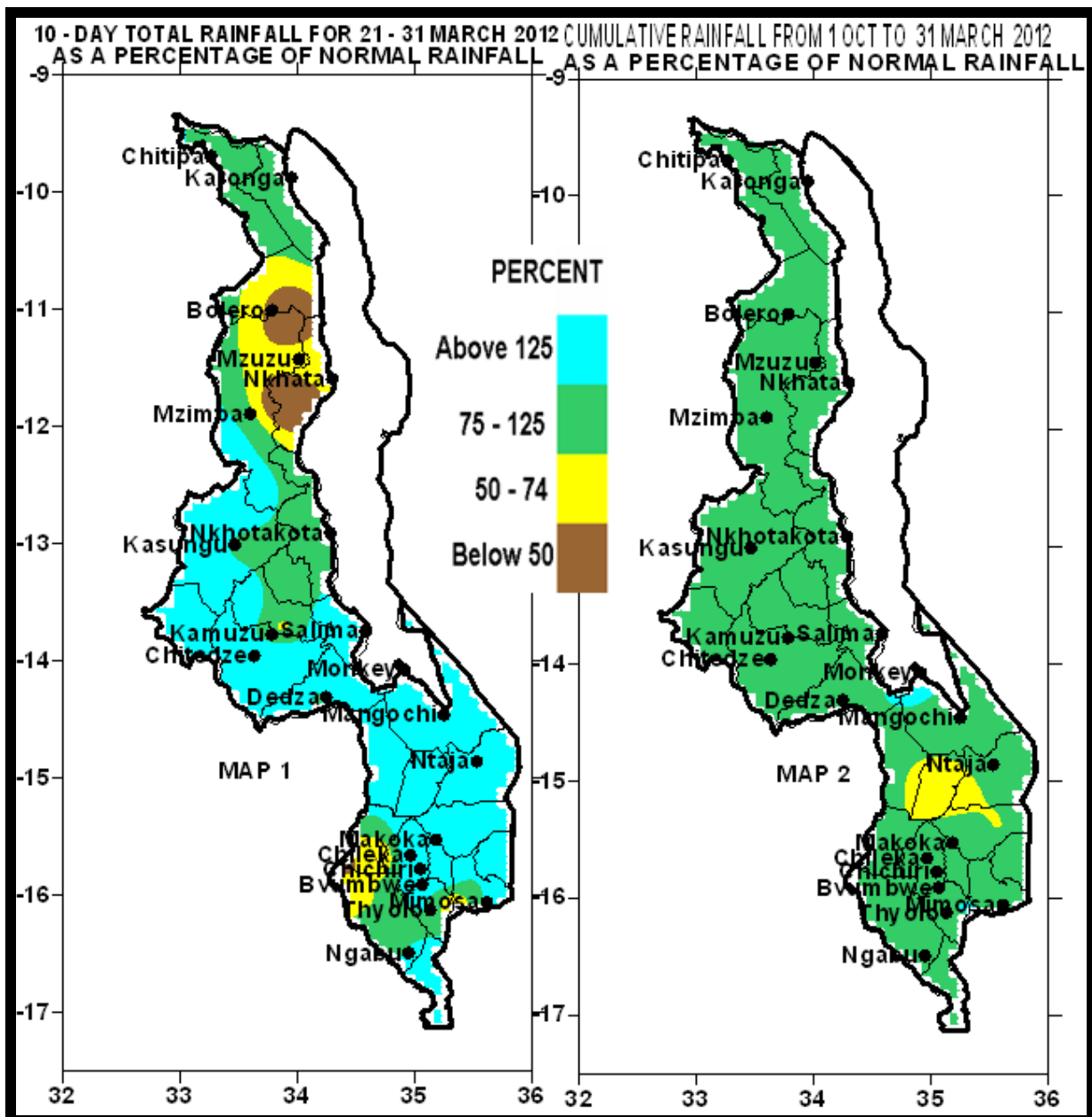
Season: 2011/2012

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## HIGHLIGHTS

- Heavy rainfall experienced in most parts of Malawi except in the north...
- Maize crop ranged from maturity to drying and harvesting stages....
- Widespread locally heavy rains expected during first ten days of April 2012 ...



### 1.1 RAINFALL SITUATION

During the last ten days of March 2012, most parts of the southern and central Malawi became very wet as moderate to heavy rainfall amounts were received while the north was relatively particularly some parts of Rumphi, Mzimba and Nkhata Bay districts where below average rainfall was reported (yellow and brown colours in Map 1). Some areas particularly in the south and centre registered heavy cumulative rainfall amounts in excess of 150mm. Such areas in the south included Chikweo Agric (205mm) in Machinga, Lujeri Tea Estate (210mm) and Mimosa Met (187mm) both in Mulanje district while in the centre such high rainfall figures were reported at Lifuwu (226mm), Salima Met (215mm), and Mkanda Agric (162mm) in Mchinji. More details are on Map 1 and Table 1.

The cumulative rainfall map showed that by 31st March 2012, the most parts of Malawi had received average cumulative rainfall amounts (Green Colour on Map 2) and a pocket of below average rainfall (Yellow colour on Map 2) still existed around Balaka district in the south. For more details see Map 2 and Table 1.

### 1.2 MEAN AIR TEMPERATURE

Malawi continued to experience warm to hot temperatures by day during the last ten days of March 2012. Daily average maximum temperatures ranged from 24°C at Dedza to 34°C at Ngabu in lower Shire. The highest absolute maximum temperature was still recorded at Ngabu (38°C). For more details see Table 2.

### 1.4 MEAN WIND SPEEDS

Wind speeds at two meters height above the ground level continued to be light. Daily average wind speeds ranged from 0.3 m/s (1.1Km/hr) at Mkondezi in Nkhata Bay to 2.8 m/s (10.1Km/hr) at Chileka Airport. More details are in Table 2.

### 1.5 MEAN RELATIVE HUMIDITY

Humid conditions continued over most areas in Malawi during the last ten days of March 2012. Daily average relative humidity values were above 73% over most areas of Malawi except at Ngabu, Monkey Bay and Ntaja. The highest average daily relative humidity was reported at Chileka Airport (86%). More details are on the Table 2.

### 2. AGROMETEOROLOGICAL ASSESSMENT

Most parts of Malawi continued to receive moderate to heavy rainfall during the period under review. As a result some areas became extremely wet. The wet conditions had hampered harvesting and drying of matured crops. On the other hand these rains continued to replenish soil moisture reserves and also facilitated growth and development roots and tuber crops as well as late planted crops that were still at vegetative stage and needed more water. Although some crops recovered from soil moisture stress, generally southern Malawi is expected to realize lower crop production due to erratic start of planting rains and prolonged dry spells that have been experienced during the month of February. The worst affected were crops that had reached flowering stage.

Malawi has experienced a poor start of the main rains and this resulted in wide variation in crop growth stages within the same field and across the country. By end of March 2012, Maize crop ranged from physiological maturity to drying and harvesting stages.

### 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 during April to June 2012.

**As the main rainfall season begins to tail off, most parts of Malawi are expected to receive average rainfall amounts during the period April to June 2012.**

### 4. OUTLOOK FOR 01 – 10 APRIL 2012

Short to medium rainfall forecast products indicate that the main rain belt will active over Malawi as it gradually shifts from southern to northern Malawi. As a result widespread locally heavy rains are expected over Malawi during the first ten days of April 2012. These rains will most likely support water resources as well as growth and development of roots and tuber crops.

**TABLE 1: DEKADAL RAINFALL SUMMARY FOR 21 – 31 MARCH 2012 AT SELECTED STATIONS**

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE	NORMAL TO DATE	TOTAL TO DATE AS % NORMAL	RAINY DAYS ≥ 0.3 mm
<b>SOUTHERN REGION</b>							
Balaka Township	28.0	32.8	85	324.2	809.5	40	2
Bvumbwe Met.	85.6	57.9	148	1017.0	1016.1	100	6
Chancellor College	108.0	75.3	143	863.2	1200.1	72	8
Chichiri Met.	67.4	15.3	441	1011.4	1028.5	98	9
Chikweo Agric.	205.1	55.8	368	1053.7	1001.1	105	8
Chileka Airport	39.6	44.5	89	763.1	826.9	92	3
Chingale Agric	130.6	30.1	434	790.5	863.2	92	8
Chiradzulu Agric	98.9	44.5	222	739.1	919.5	80	5
Lujeri Tea Estate	209.8	131.2	160	2170.0	1744.0	124	7
Makhangwa Met	47.1	25.5	185	671.8	676.0	99	3
Makoka Met	120.5	32.5	371	973.4	904.3	108	5
Mangochi Met.	71.6	33.2	216	823.2	663.3	124	6
Masambanjati Agric	60.2	64.9	93	939.5	1188.6	79	4
Mimosa Met.	187.4	81.3	231	1559.0	1268.0	123	8
Monkey Bay Met.	32.8	13.4	245	844.0	551.6	153	4
Mpemba Vet	87.1	52.1	167	1138.0	1040.5	109	6
Mulanje Boma	105.7	125.0	85	1567.6	1524.1	103	7
Mwanza Boma	12.2	35.2	35	947.1	936.9	101	4
Namiasi Agric	78.8	23.5	335	695.7	733.0	95	5
Namwera Agric	98.7	51.7	191	707.6	972.2	73	7
Ngabu Met.	44.0	35.1	125	626.6	704.8	89	5
Ntaja Met.	115.8	48.6	238	715.4	827.2	86	7
Satemwa Tea Est. No.1	82.7	61.2	135	1050.8	978.4	107	6
Thyolo Boma	81.8	52.5	156	831.4	1048.8	79	4
Thyolo Met	75.0	56.3	133	1122.3	1107.1	101	7
Zomba Land Hus.	59.5	58.2	102	747.2	1111.8	67	7
<b>CENTRAL REGION</b>							
Chileka Namitete	40.3	34.6	116	680.9	861.6	79	2
Chitedze Met.	64.3	41.6	155	783.7	829.7	94	5
Dedza Met	23.1	36.6	63	1103.2	879.2	125	6
Dowa Agric	32.3	41.3	78	772.1	835.4	92	5
Dwangwa Sugar Corp.	111.5	143.8	78	904.9	1136.1	80	6
K.I.A Met	16.9	47.3	36	897.9	810.8	111	3
Kasiya Agric	70.8	36.2	196	891.3	909.2	98	5
Kasungu Met	31.6	31.1	102	838.8	743.2	113	3
Lifuwu	226.0	71.7	315	1179.8	1128.9	105	8
Malomo Agric	34.8	30.8	113	790.1	792.1	100	4
Madisi Agric	38.4	27.5	140	663.7	796.4	83	5
Mkanda Met	161.6	43.7	370	1024.0	827.4	124	6
Mlangeni Njolomole	47.3	44.3	107	1073.7	915.2	117	6
Mponela Agric	34.0	27.9	122	726.8	767.4	95	5
Mtakataka Airwing	89.4	36.0	248	769.3	763.5	101	7
Nathenje Agric	107.1	38.5	278	802.0	796.3	101	7
Natural Res. College	84.6	37.4	226	572.6	806.7	71	5
Nkhotakota Met	118.0	142.5	83	1408.8	1244.6	113	10
Ntcheu - Nkhonde	137.3	45.0	305	991.5	992.0	100	6
Ntchisi Boma	66.2	67.5	98	561.9	1141.6	49	6
Salima Met	214.9	71.6	300	1034.9	1123.4	92	6
Dedza RTC	80.2	44.3	181	1064.7	945.0	113	7
<b>NORTHERN REGION</b>							
Bolero Met	13.9	29.6	47	677.5	595.9	114	3
Bwengu Agric.	10.7	49.3	22	675.7	712.2	95	3
Chikangawa forest	12.3	95.2	13	743.0	968.7	77	3
Chitipa Met	62.6	52.8	119	943.6	880.5	107	5
Emfeni Agric	59.1	31.1	190	778.5	749.0	104	3
Karonga Met.	83.4	114.0	73	840.0	807.7	104	9
Mbawa Res. Stn	58.2	35.8	163	832.3	765.1	109	6
Mzimba Met	42.8	48.2	89	708.7	838.8	84	4
Mzuzu Met.	67.9	100.9	67	831.4	876.2	95	5
Nkhata Bay Met.	97.0	167.0	58	1035.7	1082.9	96	6
Rumpho Boma	4.5	38.4	12	597.7	676.8	88	2
Vinthukutu Agric	124.8	122.5	102	1063.0	881.0	121	6

**TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 21 – 31 MARCH 2012**

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	25.8	17.1	28.7	15.9	2.0	82
BOLERO	28.6	17.1	30.6	15.2	N/A	75
CHICHIRI	26.3	18.4	29.6	17.6	1.0	78
CHILEKA	31.2	21.8	31.7	18.7	2.8	86
CHITEDZE	27.1	18.6	28.4	17.4	0.6	80
CHITIPA	27.2	18.1	29.6	17.2	2.1	74
DEDZA	23.7	15.9	24.7	14.6	1.1	83
K I A	26.8	17.0	27.8	16.2	1.6	76
KARONGA	29.9	21.0	31.4	19.1	1.1	74
KASUNGU	28.4	17.9	30.1	13.5	1.6	76
MANGOCHI	31.0	22.4	33.7	21.3	1.1	75
MIMOSA	31.0	19.4	34.0	17.4	1.0	78
MONKEY BAY	30.7	22.8	32.3	21.9	1.7	71
MZIMBA	27.4	17.6	29.7	17.1	0.8	74
MZUZU	25.3	17.1	28.5	15.5	1.2	83
NGABU	34.2	19.6	37.9	18.1	0.7	70
NKHATA BAY	29.9	20.8	32.8	19.6	0.3	82
NKHOTAKOTA	28.4	21.4	30.8	20.5	1.8	78
NTAJA	29.1	21.0	30.6	19.5	1.3	72
SALIMA	29.4	21.9	31.7	20.3	1.7	81

**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) = mps x 3.6