Malawi 10-Day Rainfall & Agrometeorological Bulletin

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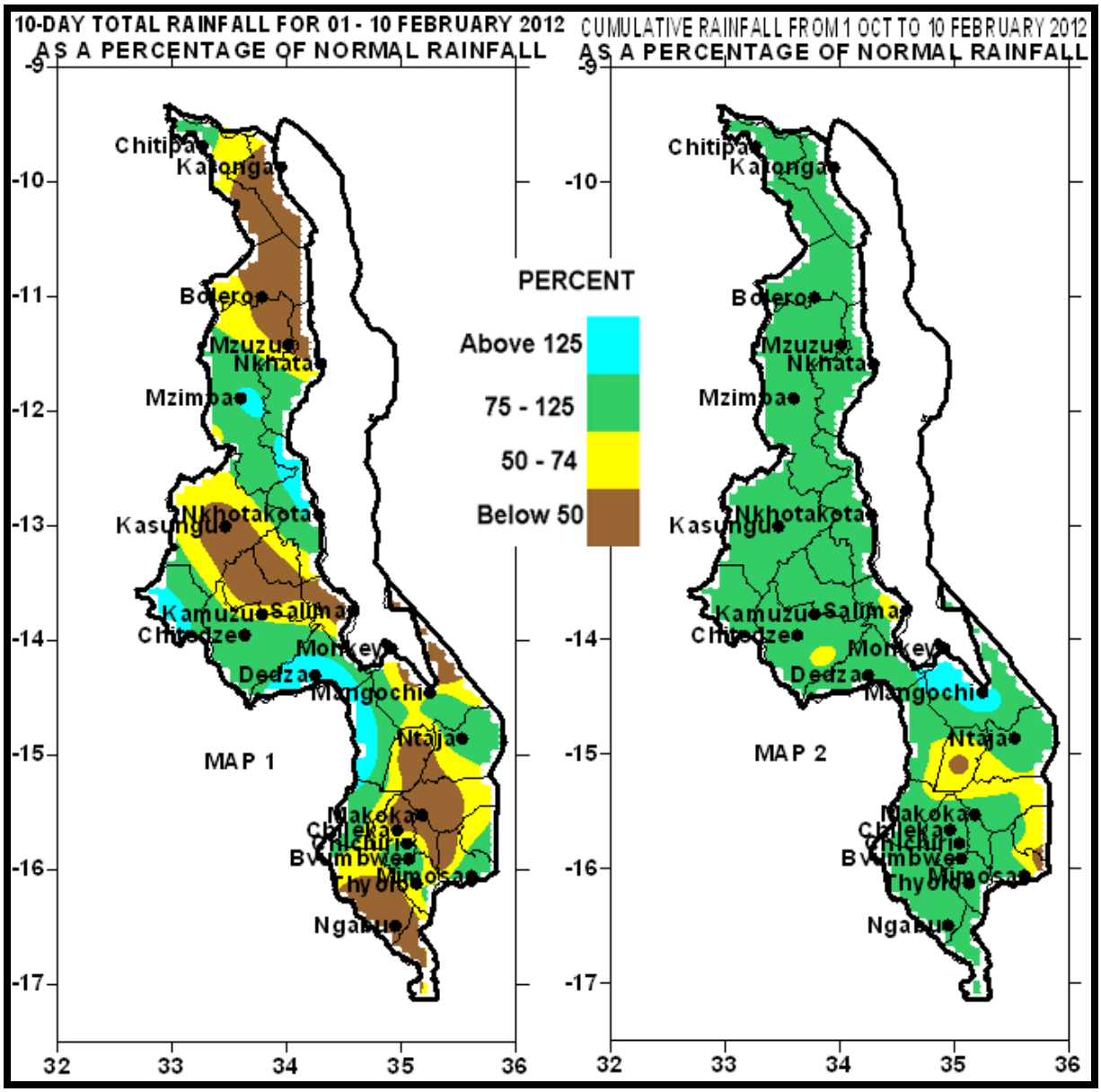
HIGHLIGHTS

- *Malawi registered average to below average rainfall …*
- *Maize crop reported in good condition ranged from vegetative to maturity stages…*
- *Tropical storm to cause locally heavy rainfall within the period 11 – 20th February 2012 …*



All inquiries should be addressed to: The Director of Climate Change and Meteorological Services, P.O. Box 1808, Blantyre, MALAWI
Tel: (265) 1 822 014/106 Fax: (265) 1 822 215 E-mail: metdept@metmalawi.com Homepage: www.metmalawi.com

1.1 RAINFALL SITUATION

In the first ten days of February 2012, the main rain bearing systems namely Congo Air mass and the Inter Tropical Convergence Zone relax over Malawi. As a result light and below average rainfall (yellow and brown colours on Map 1) were received over most parts of the country. Cumulative rainfall amounts in excess of 100mm were confined to a few areas mainly over southern and central Malawi for instance Dzonzi Forest in Ntcheu had 169mm, Lujeri Tea Estate reported 151mm, Dedza Met at Chongoni 134mm, Nkhotakota Met 121mm, Mimosa Met 117mm, Dwangwa Sugar 115mm, Mchinji Agric 108mm, Bvumbwe and Thyolo Met Stations reported 106mm. More details are on Table 1.

Map 2 shows cumulative rainfall performance from 1 October 2011 up to 10 February 2012. Generally the map shows that Malawi has received average cumulative rainfall amounts (Green Colour on Map 2) with pockets of below average rainfall (Yellow colour on Map 2) mainly around Balaka – Liwonde in the south. The below average rainfall situation has been largely due to poor and erratic rainfall performance. For more details see Map 2 and Table 1.

1.2 MEAN AIR TEMPERATURE

Malawi had experienced warm to hot temperatures during the first ten days of February 2012. Daily average maximum temperatures ranged from 24°C at Dedza to 35°C at Ngabu in Shire Valley. The highest absolute maximum temperature was still reported at Ngabu 37°C. For more details see Table 2.

1.4 MEAN WIND SPEEDS

Average wind speeds recorded at a height of two metres above the ground level remained light. Daily average wind speeds ranged from 0.5 to 2.2 metres per second or 1.8 to 7.9 Km/hour. More details are in Table 2. The highest wind speeds was reported at Ngabu (2.2 m/s).

1.5 MEAN RELATIVE HUMIDITY

Humid conditions prevailed over most areas in Malawi during the first ten days of February 2012. Most areas reported daily average relative humidity values of above 70% except at Ngabu, Ntaja and Karonga. More details are on the Table 2.

1.6 MEAN SUNSHINE HOURS

Malawi experienced continued to experience fairly cloudy skies during the period under review. Mzimba reported an average of six hours of bright sunshine.

2. AGROMETEOROLOGICAL ASSESSMENT

In first ten days of February 2012, below average rainfall performance was experienced over most areas in Malawi except a few areas mainly over high altitude areas. This brought relief to areas that were severely affected by continuous heavy rains in January 2012. Drier than average conditions allowed extremely wet conditions to dry up and flood waters to rescind. On the other hand light rains that were received maintained soil moisture reserves and facilitated planting, growth and development of roots and tuber crops.

The general crop stand in the fields was reported in good condition and good crop yields were expected if rains persist into March/April 2012 particularly in the north half of Malawi. Maize crop which is the staple food crop for Malawi was reported to be at various stages ranging from vegetative to flowering and maturity stages and more rains are required to support the bulk of this crop to maturity stage. Early results from Agrometeorological maize yield assessment model estimated a national maize production for 2011/12 season to be at around 3.3 million metric tons.

3. PROSPECTS FOR 2011/12 RAINFALL SEASON

La Niña conditions in the tropical Pacific have been at weak to moderate levels since around October 2011. Model forecasts and expert interpretation suggest that the La Niña is near its maximum strength and hence is likely to slowly decline over the coming months. However, beyond May, there is some uncertainty over the expected state of the Pacific Ocean, with no particular preference for El Niño, La Niña or neutral conditions. The situation in the tropical Pacific will continue to be carefully monitored. **Malawi is expected to receive above average to average rainfall amounts during the period February to April 2012.**

4. OUTLOOK FOR 11 – 20 FEBRUARY 2012

Models for short and medium range weather forecasts suggest that the presence of the storm in the Mozambique Channel will enhance Congo Air mass into northern and central Malawi and channel over southern Malawi during the forecast period. Therefore expect occasional thunderstorms associated with locally heavy downpours during the period 11 – 20 February 2012.

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 01 – 10 FEBRUARY 2012 AT SELECTED STATIONS

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS %	TOTAL TO DATE	NORMAL TO DATE	TOTAL TO DATE AS %	RAINY DAYS
SOUTHERN REGION	mm	mm	NORMAL	mm	mm	NORMAL	≥ 0.3mm
Balaka Township	14.8	79.3	**19**	223.8	585.2	**38**	1
Bvumbwe Met.	106.4	90.3	**118**	812.2	697.5	**116**	9
Chichiri Met.	71.6	72.9	**98**	756.0	867.7	**87**	6
Chileka Airport	23.1	88.5	**26**	590.0	586.5	**101**	4
Chingale Agric	30.2	83.6	**36**	422.5	601.3	**70**	2
Chiradzulu Agric	36.0	98.9	**36**	542.4	644.3	**84**	4
Lujeri Tea Estate	150.7	126.3	**119**	168.7	1202.4	**14**	5
Makhanga Met	9.0	58.5	**15**	531.7	478.7	**111**	2
Makoka Met	29.4	91.7	**32**	712.2	640.1	**111**	4
Mangochi Met.	63.3	72.4	**87**	685.2	418.4	**164**	5
Masambanjati Agric	71.3	87.8	**81**	769.8	777.8	**99**	4
Mimosa Met.	117.8	95.2	**124**	1097.3	867.8	**126**	6
Monkey Bay Met.	39.2	71.7	**55**	663.4	399.1	**166**	3
Mpemba Vet	87.7	84.8	**103**	647.4	725.9	**89**	4
Namiasi Agric	2.4	92.2	**3**	504.5	515.2	**98**	1
Nchalo Sucoma	1.5	70.2	**2**	508.4	434.9	**117**	1
Ngabu Met.	9.4	69.1	**14**	433.5	498.4	**87**	3
Ntaja Met.	61.2	65.8	**93**	508.2	561.8	**90**	6
Phalula Agric	38.5	67.3	**57**	272.6	548.4	**50**	1
Satemwa Tea Est. No.1	65.7	87.3	**75**	647.3	656.5	**99**	5
Thuchila Agric	7.7	80.2	**10**	175.6	563.2	**31**	2
Thyolo Met	106.0	90.3	**117**	580.5	711.9	**82**	5
Zomba RTC	27.2	100.2	**27**	406.0	767.2	**53**	6
CENTRAL REGION							
Chitedze Met.	62.0	65.2	**95**	486.4	544.9	**89**	5
Dedza Met	133.9	74.9	**179**	773.8	582.5	**133**	8
Dwangwa Sugar Corp.	115.1	76.7	**150**	502.6	661.9	**76**	6
Dzalanyama Forest	59.7	81.2	**74**	59.7	619.4	**10**	4
Dzonzi Forest	169.1	84.4	**200**	666.8	636.5	**105**	7
K.I.A Met	50.1	72.1	**69**	767.7	524.2	**146**	2
Kasungu Met	17.0	72.0	**24**	617.6	486.2	**127**	4
Mchinji Boma	108.3	62.1	**174**	688.4	648.8	**106**	7
Mponela Agric	10.5	83.0	**13**	450.3	510.4	**88**	4
Nkhotakota Met	121.7	84.2	**145**	756.2	710.9	**106**	5
Salima Met	7.7	102.3	**8**	402.5	683.0	**59**	3
NORTHERN REGION							
Baka Res. Stn.	8.0	51.0	**16**	481.3	497.5	**97**	1
Bolero Met	22.1	51.2	**43**	437.9	394.7	**111**	3
Chikangawa forest	80.0	69.4	**115**	427.5	594.8	**72**	4
Chitipa Met	73.6	87.6	**84**	639.6	561.1	**114**	6
Karonga Met.	19.1	48.7	**39**	466.7	436.4	**107**	2
Mbawa Res. Stn	46.5	66.5	**70**	571.4	507.3	**113**	7
Mzimba Met	96.7	67.2	**144**	456.8	543.5	**84**	6
Mzuzu Met.	20.6	51.9	**40**	576.8	527.9	**109**	4
NkhataBay Met.	31.3	65.3	**48**	685.0	604.3	**113**	4
Rumphi Boma	6.7	56.1	**12**	397.2	429.6	**92**	1
Zombwe Agric	23.0	48.8	**47**	322.4	422.2	76	4

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 01 – 10 FEBRUARY 2012

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	29.7	17.9	30.5	16.9	N/A	71
BVUMBWE	26.8	17.4	28.9	16.6	1.4	77
CHICHIRI	27.7	18.2	30.2	17.5	0.6	77
CHILEKA	30.5	20.1	31.7	19.0	2.1	74
CHITEDZE	28.0	17.4	29.1	12.7	0.6	77
CHITIPA	28.0	17.2	30.0	16.5	1.1	76
DEDZA	24.1	16.0	25.1	15.6	0.9	78
K I A	27.2	15.7	28.4	19.4	1.1	75
KARONGA	30.8	21.6	31.6	20.7	1.2	68
KASUNGU	29.4	17.9	30.4	16.8	1.3	74
MAKOKA	28.2	18.0	29.9	16.6	0.8	76
MANGOCHI	31.9	21.8	33.2	20.5	1.0	72
MIMOSA	31.1	18.8	32.4	17.6	0.9	77
MONKEY BAY	31.0	22.2	32.8	19.9	1.4	72
MZIMBA	27.8	16.8	29.9	15.6	0.7	74
MZUZU	27.4	16.5	29.4	14.9	1.1	77
NGABU	34.8	20.1	36.8	19.8	2.2	63
NKHATA BAY	31.4	17.1	32.6	19.6	0.5	78
NKHOTAKOTA	29.4	21.7	30.9	19.5	1.5	74
NTAJA	30.4	21.2	31.6	20.4	1.1	67
SALIMA	31.0	22.0	32.5	20.2	1.5	72

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