Malawi 10-Day Rainfall & Agrometeorological Bulletin

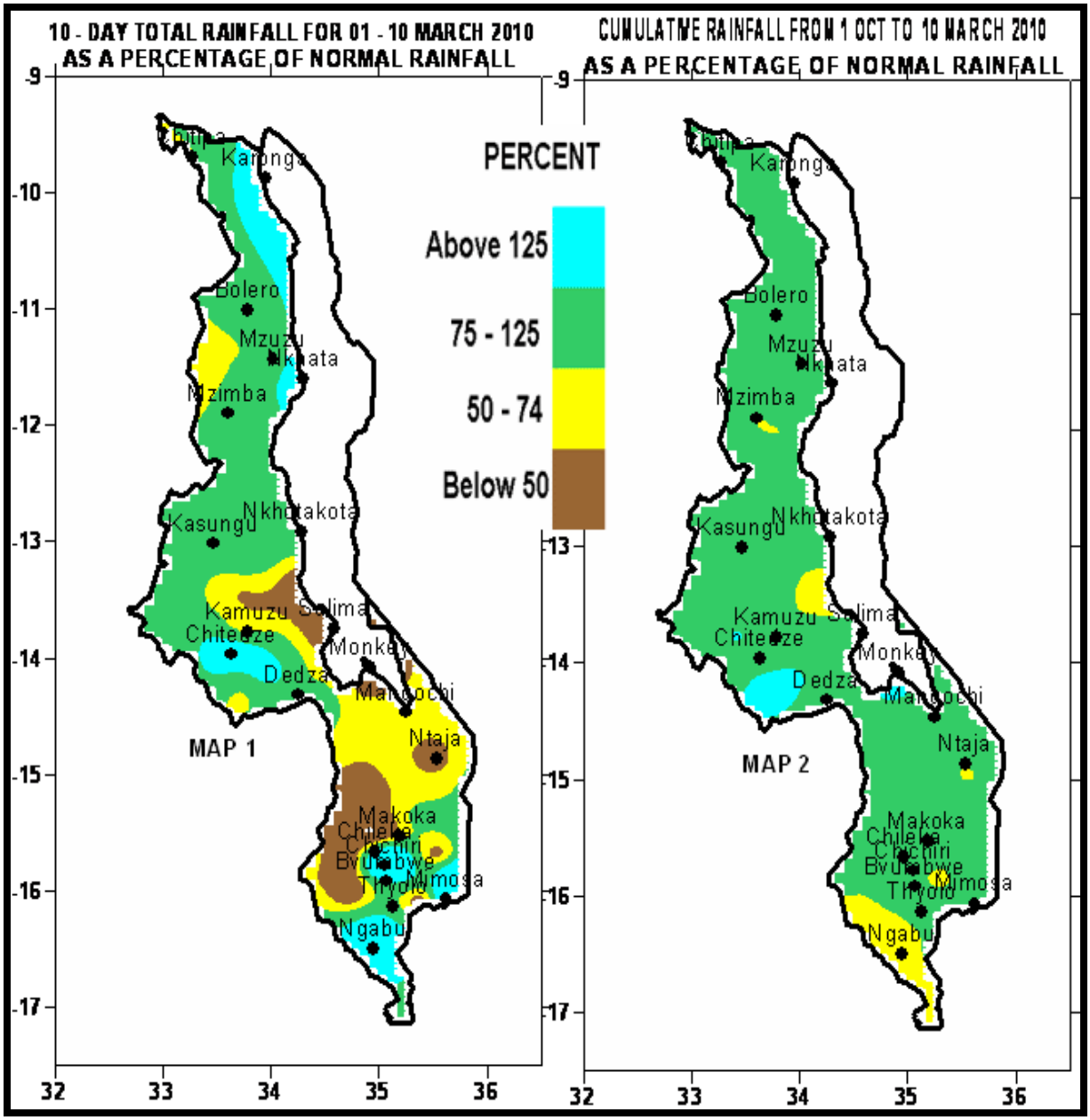
Department of Climate Change and Meteorological Services

Period: 01 – 10 March 2010 | Season: 2009/2010 | Issue No.19

Release date: 13th March 2010

HIGHLIGHTS

- Generally light to moderate rainfall was received over Malawi…
- The return of bright sunshine allowed flood waters to recede…
- Light to moderate rainfall to continue during 11 to 20 March 2010 ...



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. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the first ten days of March 2010, generally light to moderate rainfall was reported in most parts of Malawi. Below average rainfall was recorded in some parts of Salima, Mangochi, Machinga, Balaka, Mwanza and Neno districts (yellow and brown colours on Map 1). Very few areas registered rainfall amounts in excess of 100mm. Such areas in southern Malawi included Chichiri Met (108mm) in Blantyre, Masambanjati in Thyolo (120mm) and Mimosa in Mulanje (112mm). while in central Malawi Nkhotakota Met reported 141mm, Nathenje Agric 112mm, Dedza Met 107mm, Chitedze Met had accumulated 139mm, Malomo Agric reported 101mm, Dedza RTC registered 106mm and in the north high rainfall figures were reported at Mkondezi in Nkhata Bay (188mm), Karonga Met (123mm and Kavuzi Rose falls 110mm.

Cumulative rainfall performance as at 10th of March 2010 indicated that most areas in Malawi had received three quarters of the long term average rainfall amounts for the period (depicted by green colour on Map 2). However, seasonal rainfall shortages persisted in some parts of southern Malawi (yellow colours Map 2).particularly in Chikhwawa and Nsanje Districts.

1.2 MEAN AIR TEMPERATURE

Daily average maximum temperatures observed in the country were mostly in the warm to hot categories. Hot conditions (≥28°C) were observed in low altitude areas while warm weather (<28°C) was experienced over the highlands. The highest absolute maximum temperature was recorded at Ngabu Met (34°C) in Chikhwawa district and the lowest absolute minimum temperature was 14°C reported at Dedza (For more details see Table 2).

1.4 MEAN WIND SPEEDS

Malawi continued to register low mean wind speeds during the first ten days March 2010. The lowest wind speed was 0.6m/s (2.2 Km/h) reported at Karonga while the highest wind speed was 2.5 m/s (9 Km/h) recorded at Salima (For more details refer to Table 2).

1.5 MEAN RELATIVE HUMIDITY

Most areas continued to report high daily average relative humidity values. The highest relative humidity value was 89% reported at Mzuzu while Ngabu with 68% was the lowest. For more details refer to Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

Light to moderate rainfall that fell during the first ten days of March allowed flood water in some parts of the country to recede. The return of sunshine facilitated drying of matured crops in some parts of the country. Crops ranged from flowering to maturity and drying stages.

The cumulative rainfall situation (Map 2) still indicated that below-average rainfall conditions have persisted in Chikhwawa and Nsanje districts (Yellow colour on Map 2). The improvement in rainfall performance is expected to support growth and development of crops, planting of root and tuber crops as well as replenish water resources.

Indicators from the Crop Water Requirement Satisfaction Index (WRSI) model suggest that crop production this year will be lower than last year. However, the overall crop production at national level would be enough for domestic consumption and surplus. However, a result of prolonged dry spells household food shortages are expected in some districts in southern Malawi particularly in Chikhwawa and Nsanje where some farmers are not expected to harvest anything from the rain-fed crop.

3. RAINFALL PROSPECTS FOR JANUARY TO MARCH 2010

Most dynamical and statistical models continue to project that Malawi will receive normal to above normal rainfall amounts during the period January to March 2010.

4. OUTLOOK FOR 11 – 20 MARCH 2010

Medium range model projections suggest a moderately active rain belt will be centered over Malawi. Therefore expect light to moderate rainfall over most parts of Malawi during 11 to 20 March 2010.

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 01 – 10 MARCH 2010 AT SELECTED STATIONS

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL RAINFALL	RAINFALL DEKADAL TOTAL	TOTAL TO DATE	NORMAL TO DATE	RAINFALL TOTAL TODATE	RAINY DAYS
SOUTHERN REGION	(mm)	(mm)	(%)	(mm)	(mm)	(%)	≥ 0.3 mm
Bvumbwe Met.	74.0	70.3	**105**	856.4	904	**95**	7
Chichiri Met.	108.2	24.6	**440**	1004.2	997.1	**101**	7
Chikwawa Boma	7.8	43.8	**18**	496.7	647.2	**77**	3
Chileka Airport	6.8	51.8	**13**	644.4	736.6	**87**	3
Chingale Agric	41.0	57.6	**71**	681.6	781.1	**87**	3
Kasinthula Res. Stn.	35.0	87.2	**40**	818.7	616.4	**133**	3
Liwonde Township	38.0	62.4	**61**	546.2	686.8	**80**	3
Lujeri Tea Estate	86.5	14.8	**584**	1264.4	1466.3	**86**	8
Mpilipili (Makanjila)	19.5	61.5	**32**	570.0	770.9	**74**	1
Makoka Met	31.2	*65.1*	**48**	791.2	825.1	**96**	4
Mangochi Met.	41.3	55.1	**75**	713.1	586	**122**	3
Masambanjati Agric	119.7	100.3	**119**	730.0	1049	**70**	6
Mimosa Met.	111.5	95.1	**117**	832.6	1097.7	**76**	8
Monkey Bay Met.	10.3	42.4	**24**	812.5	521.9	**156**	4
Mpemba Vet	71.7	77.9	**92**	1023.1	926.5	**110**	4
Mwanza Boma	33.3	65.8	**51**	643.0	846.3	**76**	6
Namiasi Agric	25.4	44.0	**58**	547.6	659.8	**83**	3
Naminjiwa Agric	7.3	66.3	**11**	666.7	829.3	**80**	2
Nchalo Sucoma	58.6	41.0	**143**	406.9	559.5	**73**	4
Ngabu Met.	103.8	41.8	**248**	451.1	632.4	**71**	7
Nsanje Boma	59.5	81.5	**73**	616.3	892.9	**69**	5
Ntaja Met.	20.3	58.0	**35**	536.8	734	**73**	5
Satemwa Tea Est. No.1	61.8	73.0	**85**	908.0	854.1	**106**	7
Thyolo Met	79.0	70.3	**112**	891.4	992.2	**90**	6
Zomba RTC	82.5	76.0	**109**	1107.6	979.7	**113**	3
CENTRAL REGION							
Chitedze Met.	138.8	67.5	**206**	780.2	737	**106**	5
Dedza Met	107.0	68.6	**83**	794.9	799.9	**99**	6
Dwangwa	76.7	108.4	**71**	723.0	900.5	**80**	7
Kaluluma DTC	59.2	69.5	**85**	648.5	686.6	**94**	4
K.I.A Met	43.9	69.1	**64**	594.3	721.7	**82**	5
Kasiya Agric	86.8	83.5	**104**	1033.9	834.1	**124**	4
Kasungu Met	69.4	64.3	**108**	685.8	673.4	**102**	7
Lifuwu	18.2	98.7	**18**	794.8	978.5	**81**	3
Malomo Agric	101.1	84.3	**120**	632.6	714.6	**89**	4
Madisi Agric	25.5	66.7	**38**	749.8	735.3	**102**	4
Mchinji Boma	36.8	57.8	**64**	886.0	851.3	**104**	3
Mkanda Met	75.3	60.2	**125**	841.4	742.4	**113**	3
Mtakataka Airwing	42.7	63.7	**67**	922.1	675.1	**137**	6
Nathenje Agric	110.5	62.7	**176**	985.5	718.7	**137**	4
Nkhotakota Met	141.2	118.2	**119**	1188.4	988.4	**120**	8
Ntcheu - Nkhande	48.3	79.3	**61**	859.5	896.6	**96**	5
Ntchisi Boma	27.0	86.3	**31**	588.7	991.7	**59**	2
Salima Met	10.9	98.7	**11**	866.9	966.2	**90**	3
Dedza RTC	105.6	86.8	**122**	787.1	851.5	**92**	7
NORTHERN REGION							
Bolero Met	43.4	47.9	**91**	498.3	538.4	**93**	6
Chitipa Met	46.6	64.3	**72**	946.0	761.6	**124**	7
Karonga Met.	122.5	73.4	**167**	506.0	614.8	**82**	4
Kavuzi Rosefalls	109.6	109.9	**100**	1242.8	992.8	**125**	10
Mzimba Met	57.9	71.7	**81**	529.9	748.9	**71**	8
Mzuzu Met.	71.3	81.0	**88**	895.1	717.1	**125**	9
NkhataBay Met.	188.3	97.5	**193**	786.1	819.2	**96**	9
Zombwe Agric	43.5	56.5	**77**	566.9	588.7	**96**	4

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 01 – 10 MARCH 2010

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED (m/s)	RELATIVE HUMIDITY (%)
BOLERO	28.0	18.5	29.7	15.9	N/A	79
BVUMBWE	24.3	16.9	27.5	15.4	1.9	85
CHILEKA	27.2	19.7	30.2	18.3	2.2	79
CHITIPA	26.2	18.0	27.0	17.2	0.9	79
DEDZA	22.8	15.4	24.6	13.9	0.8	86
K I A	25.6	16.5	27.3	14.5	1.4	80
KARONGA	30.0	22.3	31.7	21.2	0.6	80
KASUNGU	26.6	18.7	29.2	17.0	1.3	80
MAKOKA	26.8	17.9	28.8	16.4	1.4	80
MANGOCHI	N/A	22.1	N/A	21.0	1.2	77
MIMOSA	27.8	19.4	32.1	16.5	1.0	82
MONKEY BAY	30.0	22.0	31.4	20.8	1.5	74
MZIMBA	26.7	17.8	28.5	16.3	0.9	83
MZUZU	24.9	17.1	27.1	15.5	1.7	89
NGABU	31.0	22.4	34.4	21.3	1.2	68
NKHATA BAY	29.4	21.1	31.5	19.0	0.7	89
NKHOTAKOTA	25.5	21.6	28.9	20.4	N/A	81
NTAJA	28.2	20.9	31.0	18.9	1.3	79
SALIMA	28.5	22.3	30.9	20.7	2.5	75
THYOLO	26.4	19.3	29.4	17.6	N/A	86

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