REPUBLIC OF MALAWI

Department of Climate Change and Meteorological Services

10-day Weather and Agrometeorological Bulletin

In support of national early warning systems

Period: 01 – 10 April 2013 Season: 2012/2013 Issue No.19

Release date: 12th April 2013

HIGHLIGHTS

- **Rainfall over Malawi continued to decline …**
- **Maize crop mostly at dying stage and harvesting continues…**
- **Occasional light rainfall expected during the period 11 to 20th April 2013…**

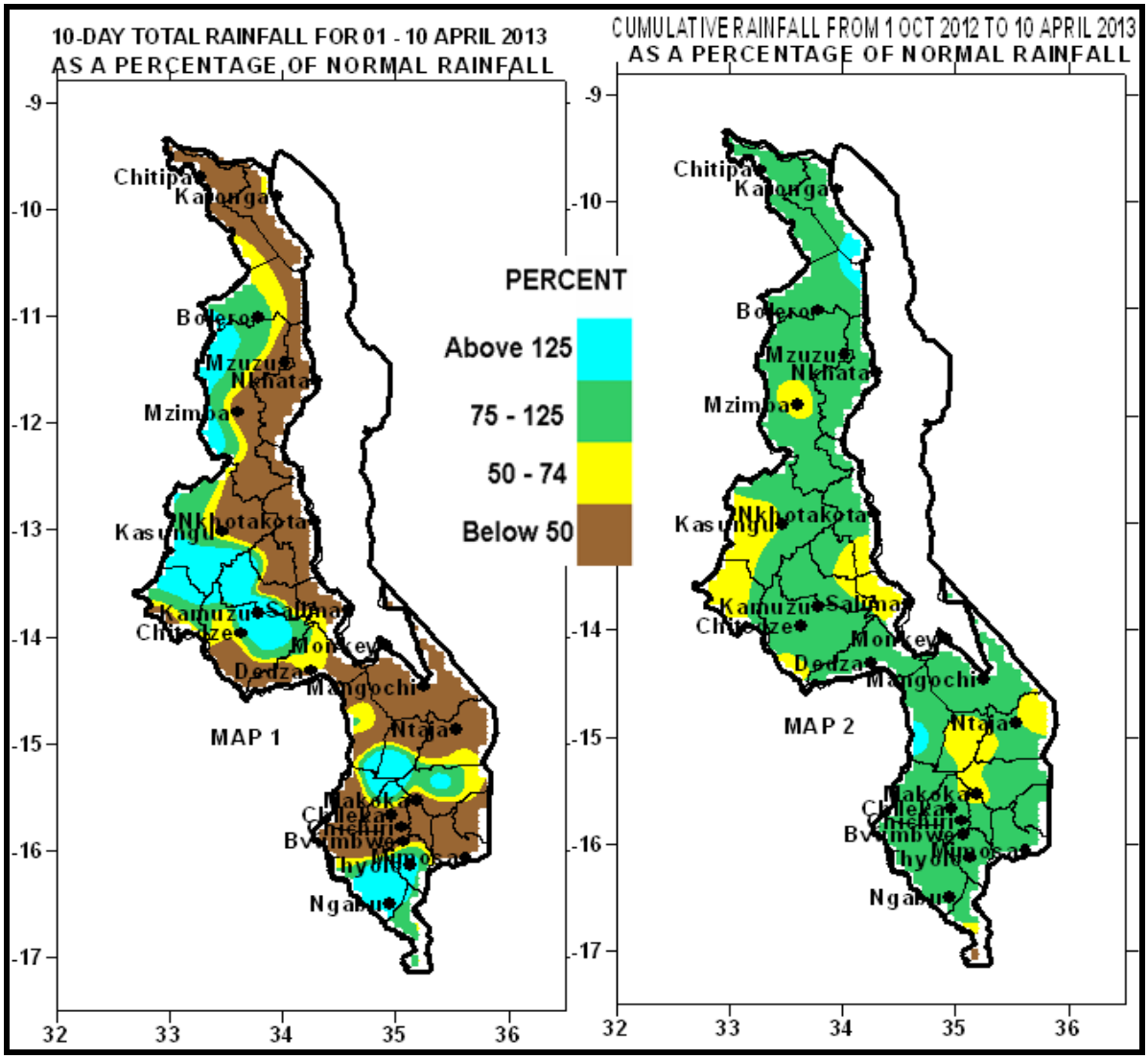

Figure 1: Rainfall Maps for Malawi for 01 – 10 April 2013

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

1.0 WEATHER SUMMARY AND IMPACTS

1.1 RAINFALL SITUATION

During the first ten days of April 2013 below average cumulative rainfall and dry conditions were experienced over most areas in Malawi except for places which had registered average to above average cumulative rainfall amounts. A few areas that had recorded significant rainfall amounts in excess of 75mm included Masambanjati Agric 77.6mm in the south, Kamuzu International Airport Met 85.3mm and Madisi Agric 78.3mm in the centre. See more details in Table 1 and Map 1.

Map 2 shows the cumulative rainfall performance for the country since the rainfall season started on 1st October 2012 up to 10th April 2013. The map shows that most areas in Malawi have achieved their expected long term average cumulative rainfall amounts (green colour on Map 2) with a few pockets of below average rainfall (yellow and brown colours) and above average rainfall (light blue colour). For more details refer to Table 1 and Map 2.

1.2 VEGETATION CONDITION

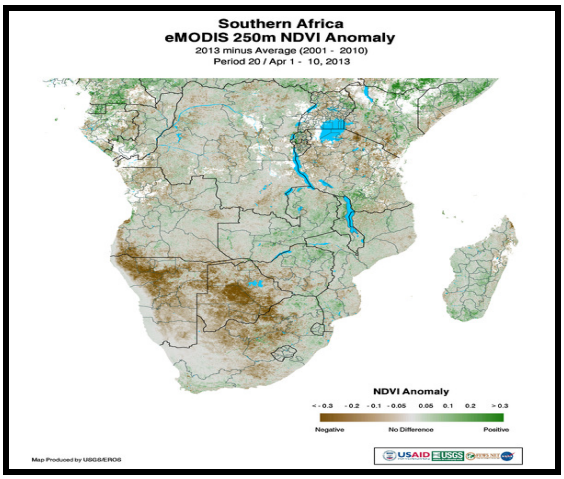

Figure 2: Vegetation Condition over Southern Africa

The vegetation diference from long term average map for Southern Africa for the period 1st to 10th April 2013 showed a mixed pattern over the region. Positive anomalies persisted in most areas that had experienced good rainfall and improved green biomass (Figure2) while pockets of negative anomalies were evident in areas where seasonal vegetation and crops had reached maturity and senescence period.

1.3 AIR TEMPERATURE

During the first ten days of April 2013, warm to hot tempratures were experienced over Malawi. The daily mean maximum temperatures ranged from 23.8°C at Dedza to 31.5°C at Ngabu and Mangochi. When compared to the previous dekad, generally slightly lower temperatures have been experienced in Malawi. Mean absolute minimum temperatures ranged from around 12.0°C at Bvumbwe and Bolero (Table 2). The highest absolute maximum temperature for the period was about 34.1°C, observed at Ngabu in Shire Valley on 10 April 2013.

1.4 WIND SPEEDS

Daily mean wind speeds at a height of two metres above the ground level ranged from 0.3 to 2.7 meters per second. The lowest mean wind speed was reported at Chitedze Met while the highest mean wind speed was recorded at Chitipa Met. Refer to Table 2.

1.5 RELATIVE HUMIDITY

During the period under review, air over Malawi was relatively dry. Mean daily relative humidity values ranged from 53% to 89%. The lowest mean relative humidity value was reported at Makoka in Zomba district while the highest relative humidity was registered at Bolero in Rumphi district. See more details in Table 2.

2.0 AGROMETEOROLOGICAL ASSESSMENT

Dry weather conditions were maintained in most areas in Malawi during the period under review. The prevailing dry weather had facilitated harvesting and drying of matured crops while moderate rains that fell in some parts of the country had supported growth and development of roots and tuber crops. On the negative note the wet weather had hampered harvesting of matured crops. Maize crop had ranged from maturity and drying to harvesting stages. Crops that were at

drying stage required more sunshine hours for drying. The following is an assessment by Agriculture Development Divisions (ADDs):

2.1 SHIRE VALLEY ADD

Fairly wet weather had been experienced in the ADD resulting in above average rainfall situation during the period under review. The wet weather that existed in the ADD had hampered harvesting and drying of crops that had reached physiological maturity stage. Water and pasture for livestock were reported readily available and this continued to improve livestock condition in the ADD. Maize crop was reported to be mostly at drying and harvesting stages. Harvesting of matured crops has improved household food security in the ADD.

2.2 BLANTYRE ADD

Dry weather was experienced in most parts of the ADD during the period under review. The dry weather continued to facilitate harvesting and drying of crops. Maize was mostly between drying and harvesting stages. Harvesting of matured crops was in progress in the ADD. This has greatly improved household food security in the ADD.

2.3 MACHINGA ADD

Dry conditions persisted in Machinga ADD during the first ten days of April 2013. Most areas had registered below average rainfall situation during the entire period. The dry weather continued to facilitate harvesting and drying of matured crops. The Maize crop was reported ranging from drying to harvesting stages. Harvesting of various crops was in progress in most parts of the ADD. This has improved household food security in the ADD

2.4 LILONGWE ADD

Most Extension Planning Areas (EPAs) in Lilongwe ADD had experienced below average rainfall situation leading to wilting and premature drying of crops. A few areas continued to receive light rains which were good for growth and development roots and tuber crops. The Maize crop was reported at various stages of development ranging from maturity to drying and harvesting stages. Harvesting of greens was in progress in the ADD. This has improved household food security in Lilongwe ADD.

2.5 SALIMA ADD

Salima ADD had experienced dry weather conditions during the first ten days of April 2013. Most areas had registered far below average rainfall amounts which had resulted into wilting and premature drying of some crops. The Maize crop was reported at various stages of development ranging from maturity to drying and harvesting stages. Harvesting of matured crops was in progress in the ADD and this continued to improve household food security in the ADD.

2.6 KASUNGU ADD

Most parts of the ADD had stayed dry except for some parts of Mchinji which had registered above average rainfall during the first ten days of April 2013. Most areas had registered below average rainfall situation leading to premature drying of late planted crops. A few areas however had recorded light rains which had supported growth and development roots and tubers. The Maize crop was reported to be at various stages of development ranging from maturity and drying stages. Harvesting of matured crops was in progress in the ADD. This has positively impacted on household food security.

2.7 MZUZU ADD

Generally most parts of Mzuzu ADD had experienced dry weather conditions except for the western side which had reported above average rainfall during the first ten days of April 2013. The dry weather has caused premature drying of late planted crops and local maize. Crops were reported to have dried prematurely in some parts of Rumphi and Mzimba districts. The Maize crop was reported at various stages of development ranging from maturity and drying to harvesting stages.

2.8 KARONGA ADD

Dry conditions and below average rainfall situation had returned to 'Karonga ADD during the period under review. The dry weather that existed had helped the flood waters to recede in Kaporo north. The floods have supported growth and development of rice in the ADD. The Maize crop was reported doing well and had ranged from maturity to drying and harvesting stages.

3. PROSPECTS FOR 2012/13 RAINFALL SEASON

The summary of the 2012/2013 seasonal rainfall outlook is that ***"Normal total rainfall amounts are expected over most parts of Malawi during the 2012/2013 rainfall season***". The forecast which was reviewed and updated in December 2012 still had maintained that the greater part of the country will still experience normal to above normal total rainfall amounts by end of the summer rainfall season.

4. OUTLOOK FOR 11 – 20 APRIL 2013

Models for short and medium term weather forecasts indicate that a series of high pressure areas will pass through the southern tip of the Republic of South Africa and occasionally cause an influx of cool and moist air into Malawi. Therefore Malawi will experience occasional cloudy weather conditions with patches of rain and drizzle mainly over highlands and Mwera winds over the Lake during the period 11 to 20th April 2013.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 1 OF APRIL 2013: PERIOD 01 – 10TH

STATION NAME	DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL mm	DEKADAL TOTAL AS PERCENTAGE OF NORMAL	TOTAL TO DATE mm	NORMAL TO DATE mm	NORMAL TODATE AS PERCENTAGE OF NORMAL	RAINY DAYS ≥ 0.3 mm
SOUTHERN REGION							
Balaka Township	7.0	21.4	**33**	397.7	830.9	**48**	1
Bvumbwe Met.	8.3	30.7	**27**	970.8	1046.8	**93**	2
Chancellor College	58.8	36.5	**161**	1084.2	1236.6	**88**	3
Chichiri Met.	16.7	29.0	**58**	1270.4	1057.5	**120**	3
Chikwawa Boma	2.1	21.2	**10**	744.1	735.2	**101**	1
Chikweo Agric.	0.0	27.1	**0**	638.7	1028.2	**62**	0
Chileka Airport	4.6	20.0	**23**	828.0	846.9	**98**	2
Chingale Agric	0.0	25.9	**0**	638.0	889.1	**72**	0
Chiradzulu Agric	6.9	22.4	**31**	763.0	941.9	**81**	2
Chizunga Factory	3.0	54.5	**6**	935.3	1257.8	**74**	1
Kasinthula Res. Stn.	5.3	18.1	**29**	585.0	685.3	**85**	2
Lujeri Tea Estate	68.4	106.5	**64**	2216.8	1850.5	**120**	2
Mpilipili (Makanjila)	0.0	18.5	**0**	664.4	864.0	**77**	0
Makhanga Met	13.1	16.4	**80**	890.4	692.4	**129**	2
Makoka Met	2.1	30.7	**7**	569.6	935.0	**61**	1
Mangochi Met.	1.6	20.2	**8**	775.1	683.5	**113**	1
Masambanjati Agric	77.6	51.7	**150**	1125.8	1240.3	**91**	2
Mimosa Met.	9.8	63.8	**15**	1414.8	1331.8	**106**	2
Monkey Bay Met.	2.7	6.5	**42**	761.6	558.1	**136**	1
Mpemba Vet	0.0	32.1	**0**	1127.5	1072.6	**105**	0
Mulanje Boma	42.1	82.2	**51**	1595.6	1606.3	**99**	2
Mwanza Boma	2.1	34.9	**6**	817.9	971.8	**84**	1
Namiasi Agric	0.0	4.6	**0**	652.7	737.6	**88**	0
Naminjiwa Agric	0.0	18.6	**0**	903.9	928.7	**97**	0
Namwera Agric	0.0	34.5	**0**	941.2	1006.7	**93**	0
Nchalo Sucoma	64.3	18.9	**340**	594.6	624.3	**95**	2
Neno Agric	0.0	36.3	**0**	1142.0	1047.4	**109**	0
Ngabu Met.	28.4	17.9	**159**	737.9	722.7	**102**	2
Ntaja Met.	11.7	31.2	**38**	699.1	858.4	**81**	1
Phalula Agric	61.5	14.3	**430**	651.0	799.1	**81**	2
Satemwa Tea Est. No.1	39.1	46.5	**84**	598.7	1024.9	**58**	3
Thyolo Boma	58.2	42.6	**137**	1021.9	1091.4	**94**	1
Zomba RTC	16.1	42.0	**38**	944.1	1153.8	**82**	2
CENTRAL REGION							
Bunda College	28.8	30.7	**94**	858.3	864.3	**99**	2
Chileka Namitete	23.6	27.9	**85**	764.2	889.5	**86**	3
Chitedze Met.	22.5	29.3	**77**	863.9	859.0	**101**	3
Dedza Met	17.0	25.6	**66**	725.0	904.8	**80**	4
Dowa Agric	6.5	24.5	**27**	663.6	859.9	**77**	1
Dwangwa Sugar Corp.	3.0	92.8	**3**	1123.0	1228.9	**91**	2
Dzonzi Forest	0.0	20.5	**0**	1467.6	952.3	**154**	0
Kaluluma DTC	17.6	24.6	**72**	612.6	789.3	**78**	2
K.I.A Met	85.3	19.6	**435**	880.8	830.4	**106**	4
Kasiya Agric	10.2	19.0	**54**	830.6	928.2	**89**	1
Kasungu Met	5.1	17.6	**29**	564.3	760.8	**74**	2
Lifuwu	11.0	46.3	**24**	727.5	1175.2	**62**	3
Lisasadzi	14.5	15.8	**92**	618.8	792.1	**78**	3
Malomo Agric	0.0	16.3	**0**	730.4	808.4	**90**	0
Madisi Agric	78.3	16.3	**480**	674.1	812.7	**83**	3
Mchinji Boma	0.0	29.3	**0**	610.1	977.9	**62**	0
Mkanda Met	39.3	25.9	**152**	576.4	853.3	**68**	3
Mlangeni Njolomole	7.1	24.3	**29**	853.9	939.5	**91**	2
Mponela Agric	0.5	11.6	**4**	658.2	779.0	**84**	1
Mtakataka Airwing	0.0	29.9	**0**	555.5	793.4	**70**	0
Nathenje Agric	65.3	44.0	**148**	961.6	840.3	**114**	3
Natural Res. College	13.9	15.0	**93**	757.0	821.7	**92**	2
Nkhotakota Met	50.3	97.1	**52**	1254.8	1341.7	**94**	2
Ntchisi Boma	0.0	47.4	**0**	690.2	1189.0	**58**	0
Salima Met	8.0	44.8	**18**	656.8	1168.2	**56**	1
NORTHERN REGION							
Baka Res. Stn.	57.2	140.5	**41**	942.1	1200.4	**78**	4
Bolero Met	17.8	18.2	**98**	685.8	614.1	**112**	2
Bwengu Agric.	19.2	21.7	**88**	702.2	733.9	**96**	3
Chikangawa forest	5.5	70.3	**8**	825.7	1039.0	**79**	3
Chitipa Met	2.2	37.9	**6**	808.4	918.4	**88**	2
Chintheche Agric	3.0	146.7	**2**	1379.6	1472.3	**94**	1
Emfeni Agric	0.0	26.8	**0**	580.1	775.8	**75**	0
Ekwendeni Agric.	0.0	42.2	**0**	529.2	779.8	**68**	0
Euthini Agric.	35.4	22.6	**157**	625.8	748.1	**84**	2
Karonga Met.	67.2	88.0	**76**	1012.0	895.7	**113**	4
Lupembe	24.7	63.1	**39**	723.8	773.9	**94**	3
Mbawa Res. Stn	31.0	16.5	**188**	734.2	781.6	**94**	2
Mzimba Met	2.5	23.5	**11**	549.1	862.3	**64**	2
Mzuzu Met.	13.6	89.2	**15**	931.7	965.4	**97**	3
NkhataBay Met.	32.4	133.0	**24**	1624.5	1215.9	**134**	3
Rumphi Boma	23.6	30.0	**79**	590.6	706.8	**84**	1
Vinthukutu Agric	21.3	112.7	**19**	1541.2	993.7	**155**	1
Zombwe Agric	32.0	36.0	**89**	705.0	716.9	**98**	2

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR THE PERIOD 01 TO 10 APRIL 2013

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (ºC)	ABS MIN (°C)	WIND SPEED (m/s)	RH (%)	EVAP (mm)
KARONGA ADD							
Chitipa	25.2	17.9	29.3	16.2	2.7	74	N/A
Karonga	29.8	21.0	30.5	19.6	0.9	76	N/A
MZUZU ADD							
Bolero	29.7	15.8	31.0	12.0	N/A	89	N/A
Mzuzu	25.3	15.1	27.0	12.6	1.0	81	N/A
Mzimba	28.3	15.7	29.6	13.6	1.2	66	N/A
Nkhata Bay	30.3	19.4	32.5	18.5	0.7	78	N/A
Kasungu	27.0	16.3	31.0	13.5	1.0	65	N/A
LILONGWE ADD							
KIA	26.3	15.3	27.3	12.7	1.2	69	5.9
Chitedze	27.3	15.3	28.6	13.3	0.6	74	N/A
Dedza	23.8	14.3	25.6	12.3	1.4	73	N/A
SALIMA ADD							
Salima	30.6	21.0	32.5	18.2	1.8	66	N/A
Nkhotakota	28.5	20.2	30.1	19.0	2.0	66	N/A
MACHINGA ADD							
Makoka	27.1	15.2	29.4	12.1	1.2	53	N/A
Ntaja	29.3	19.0	31.6	17.0	1.3	63	N/A
Mangochi	31.5	18.5	33.6	15.2	1.3	67	N/A
Monkey Bay	31.4	21.0	33.2	18.6	1.7	61	N/A
BLANTYRE ADD							
Chileka	28.2	18.2	31.3	14.9	0.3	63	N/A
Chichiri	26.3	17.0	29.5	13.1	1.4	61	N/A
Bvumbwe	25.0	14.0	28.8	12.0	1.7	69	N/A
Mimosa	29.9	16.5	33.1	13.1	1.0	70	4.8
SHIRE VALLEY ADD							
Ngabu	31.5	N/A	34.1	N/A	1.4	75	N/A

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 bserved for a given number of days (calendar month) of a specified period of months (years).
- convert Meters Per Second (mps) to Kilometers per hour (Km/hr) = mpsx3.6