10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

Period: 21 – 31 March 2006 Season: 2005/2006 Issue No.18

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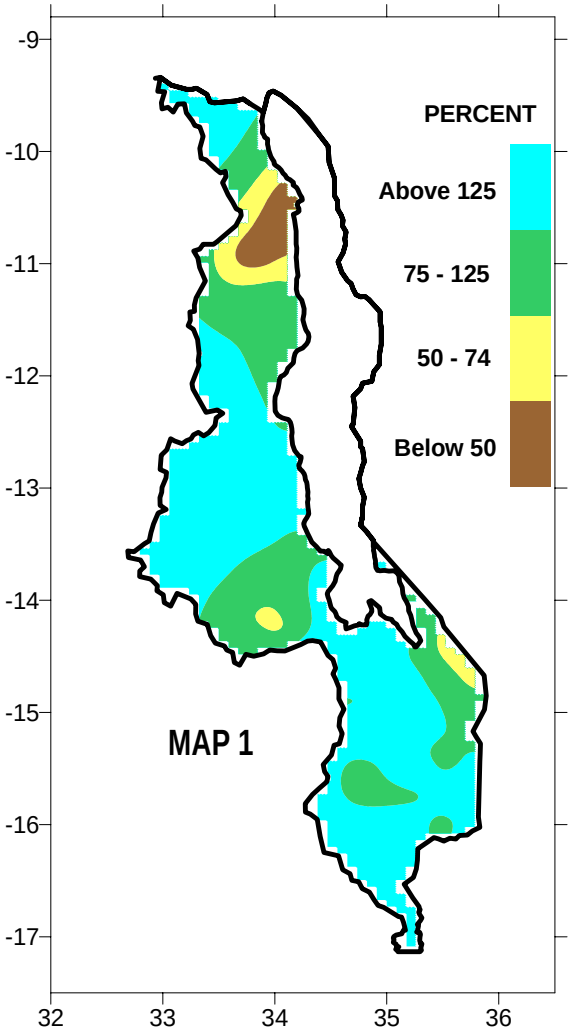
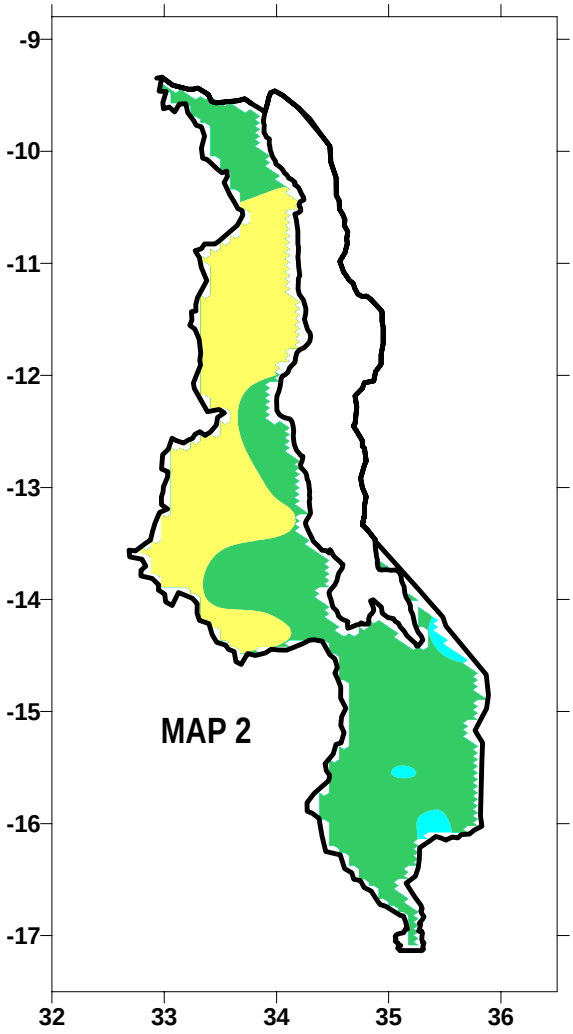
HIGHLIGHTS

- **A pick up in rainfall activities experienced over the country…**
- **Continued rainfall caused problems for matured crops in some parts…**
- **Scattered locally heavy rainfall expected in the north during 1 – 10 April 2006…**

10-DAY RAINFALL FOR 21 - 31 MARCH 2006
AS PERCENTAGE OF NORMAL RAINFALL



TOTAL RAINFALL TO DATE AS APERCENTAGE OF NORMAL
RAINFALL FOR THE PERIOD 1 OCT 2005 TO 31 MAR 2006



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1. WEATHER SUMMARY

1.1 RAINFALL

During the third 10-days of March 2006, northern half of Malawi was under the influence of the equatorial trough while the southern half was being affected by a convergence zone of relatively cool south easterlies and warm easterlies. As a result most parts of the south and central areas as well as the northern tip of the country received above normal rainfall for the period under review. However, some areas like Bolero, Vinthukutu and Nkhata Bay in the north received below normal rainfall during the same period. Map 1 show that most areas had received normal to above normal (above 75% of the expected) rainfall amounts. High 10-day rainfall amounts of up to 100 mm were reported at Lujeri (162 mm), Mimosa (172 mm) and Thyolo (137 mm) in the south; Dwangwa (182 mm), Mlangeni (180 mm), Nkhotakota (381 mm) and Salima (135 mm) in the centre; and Chitipa, Karonga and Nkhata Bay (104, 111 and 120 mm respectively) in the north. See Table 1 and Map 1.

Cumulative rainfall performance since the season started on1st October 2005 indicates that as at 31st March 2006 almost all areas in the south, some parts of the centre and areas in the northern tip of Malawi had received above 75% of the expected cumulative rainfall, while a large part of the northern region and some parts of the central region had received between 50 and 74% of the expected cumulative rainfall. See Table 1 and Map 2.

1.2 MEAN AIR TEMPERATURE

Day time temperatures across the country were in the range of warm to hot, whereas night temperatures were generally mild to warm. Mean maximum temperatures ranged from 25°C to 31°C while mean minimum temperatures were in the range of 16 to 23°C. See Table 2.

1.3 MEAN DAILY WIND SPEEDS

Light and variable mean daily wind speeds - measured at a height of 2 meters above the ground - were generally registered across the country. The average speeds ranged from 0.7 (2.5 Km/hr) at Bolero Met to 2.5 m/s (9.0 Km/hr) at Salima Met. See Table 2.

1.4 MEAN RELATIVE HUMIDITY

The observed mean relative humidity values in the period under review were higher than in the previous10-day period. This time the values ranged from 74% at Ngabu to 97% at Mimosa. In the previous 10-day period Malawi registered relative humidity values ranging from 53 to 84%. See Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

Incessant rains continued to cause problems for matured crops particularly in the south and some parts of central region where most crops have reached maturity, drying and harvesting stages. On the other hand, the rains received over most areas maintained soil moisture and supported planting, growth and development of tuber crops. Maize in the north was reported to be between flowering and maturity stages. For this crop to mature properly, rains need to continue to mid April earliest.

3. FORECAST FOR 21 – 31 MARCH 2006

The northern half of Malawi will be under the influence of the equatorial trough currently lying over East Africa. While the southern half will be affected by a ridge of an anticyclone over the Indian Ocean. However, air over Malawi will remain moist and unstable. Therefore, light to moderate rainfall is expected over the southern half of Malawi while scattered and locally heavy rainfall is expected in the northern half during the period 1 – 10 April 2006.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3OF MARCH 2006: PERIOD 21- 31

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	≥ 0.3 mm
Bvumbwe Met.	107	50.2	213	1223.9	987.4	124	10
Chancellor College	81.7	82.9	99	1254.4	1315.8	95	8
Chichiri Met.	45.5	51.5	88	1153.9	1003.6	115	3
Chileka Airport	23.9	40.9	58	999.2	834.1	120	8
Chingale Agric	71.9	41	175	862.4	891.8	97	10
Chiradzulu Agric	51.9	48.1	108	1012.8	977.5	104	6
Liwonde Township	88.6	37.2	238	863.9	792	109	9
Lujeri Tea Estate	162.4	131.2	124	1715.7	1744	98	10
Makoka Met	86.3	38.7	223	1234.3	943.8	131	7
Mangochi Met.	38.6	37.5	103	763.3	789.7	97	6
Mimosa Met.	171.9	78	220	1542.3	1288.9	120	10
Monkey Bay Met.	40.9	28	146	850.5	898.4	95	4
Mulanje Boma	67.3	105.4	64	2105.3	1438.5	146	4
Namiasi Agric	37.1	28.6	130	817.7	783.3	104	3
Naminjiwa Agric	64	33.6	190	1101.5	893.5	123	5
Namwera Agric	37.6	59.2	64	1426.9	997.7	143	8
Ngabu Met.	67.2	35.5	189	764.4	721.7	106	5
Ntaja Met.	49.1	52.3	94	843.7	839.1	101	7
Satemwa Tea Est. No.1	139	63.9	218	1217.8	1165.3	105	11
Thyolo Met	137.1	56	245	1228.6	1046	117	9
CENTRAL REGION							
Bunda College	20	28.2	71	563.9	805.2	70	7
Chitedze Met.	41.4	42.9	97	683	858.3	80	5
Dedza Met	31	37	84	642.9	886.3	73	2
Dowa Agric	51.4	51.3	100	666.6	843.1	79	5
Dwangwa Sugar Corp.	182.2	160.4	114	1032.8	1175.8	88	11
K.I.A Met	27.1	31.5	86	766.4	803.5	95	4
Lifuwu	81.3	79.3	103	1177.8	1216.5	97	4
Lisasadzi	67.9	23.5	289	476.4	776.3	61	5
Mlangeni Njolomole	179.6	41.1	437	1198	943.5	127	6
Natural Res. College	40.6	37.4	109	634.1	806.7	79	4
Nkhotakota Met	380.7	139.6	273	1155.5	1289.6	90	10
Ntcheu - Nkhande	53.1	42	126	1077.8	1011.2	107	5
Ntchisi Boma	54.9	43.7	126	597	821.1	73	6
Salima Met	135.2	65.1	208	1628.4	1165.9	140	5
NORTHERN REGION							
Bolero Met	7.2	26.6	27	424.1	692.4	61	5
Bwengu Agric.	28.9	40.8	71	493.1	770	64	6
Chitipa Met	103.9	50.5	206	921.3	922.7	100	9
Karonga Met.	111.3	116.6	95	759.3	870.4	87	9
Mzimba Met	58.5	42.9	136	601.5	840.5	72	7
Mzuzu Met.	93.2	77.6	120	587.5	970.9	61	8
NkhataBay Met.	119.7	217.5	55	885.7	1313.9	67	8
Vinthukutu Agric	36.2	132.2	27	690.3	962.1	72	4

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 3OF MARCH 2006

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	24.6	16.4	27.0	15.5	1.0	88
BOLERO	28.6	17.6	29.4	16.0	0.7	77
CHILEKA	26.2	19.6	28.3	17.3	2.3	85
NTAJA	27.8	20.7	29.6	19.6	0.8	84
CHITEDZE	26.8	17.5	28.3	16.4	0.8	79
CHITIPA	26.3	17.7	27.0	17.0	1.8	75
KARONGA	28.7	21.4	29.8	20.5	1.1	82
K I A	25.6	17.0	27.2	16.4	1.5	83
MAKOKA	25.8	18.1	27.8	17.1	1.1	88
MANGOCHI	29.3	22.0	31.0	21.0	1.5	78
MIMOSA	30.5	17.8	31.1	16.1	1.4	97
MONKEY BAY	29.5	22.2	31.0	20.7	1.6	76
MZIMBA	26.7	16.5	28.0	14.8	0.8	76
MZUZU	25.1	16.9	27.5	15.0	1.6	83
NGABU	30.7	23.2	33.7	21.5	1.2	74
NKHATA BAY	29.3	20.7	30.7	19.9	N/A	92
NKHOTAKOTA	28.0	20.7	29.5	19.3	1.9	80
SALIMA	28.9	21.8	30.6	20.3	2.5	80

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