10-Day Rainfall & Agromet Bulletin

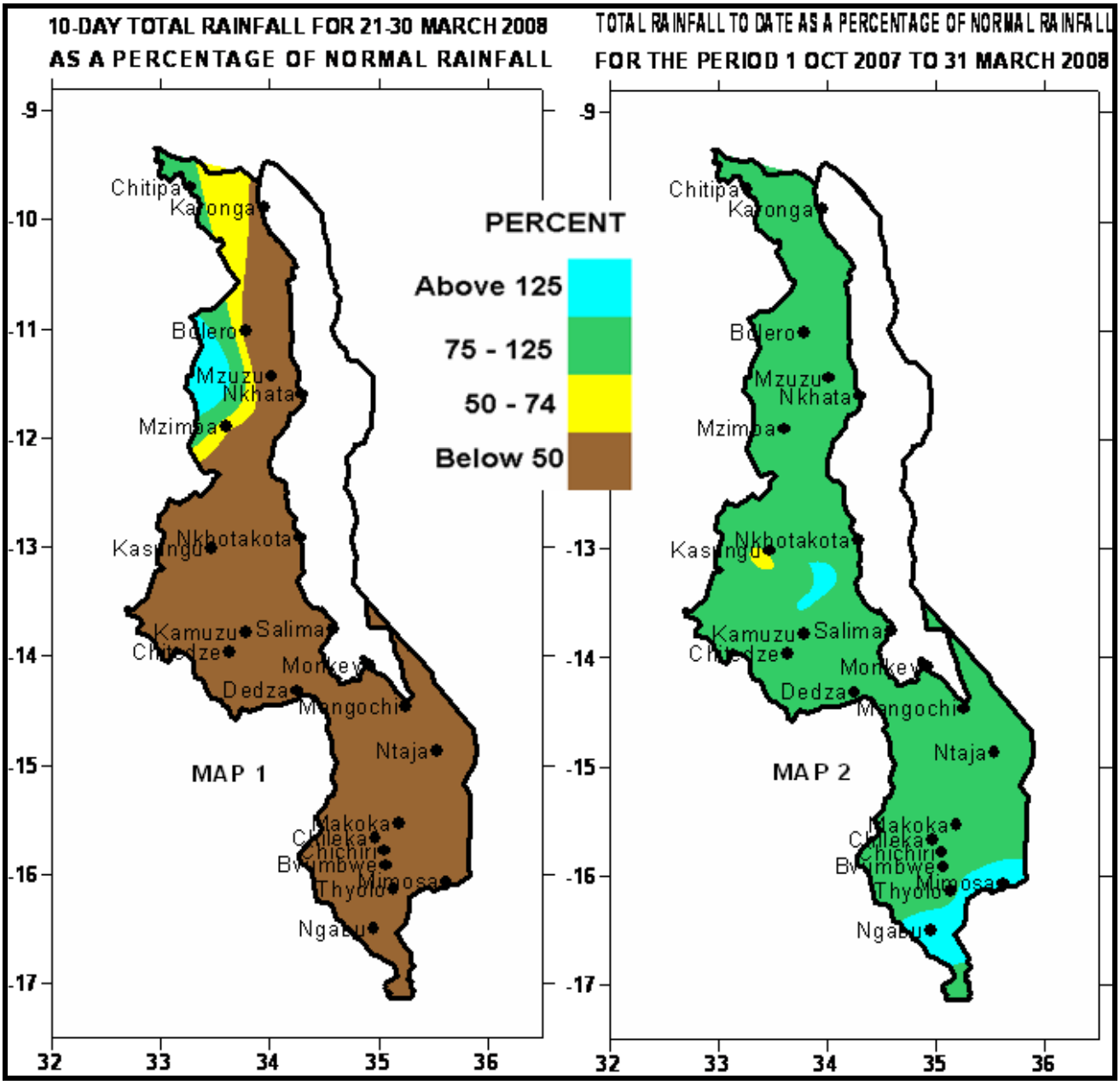
Department of Meteorological Services

Period: 21 – 31 March 2008 | Season: 2006/2007 | Issue No.18

Release date: 04 April 2008

HIGHLIGHTS

- **Rainfall distribution declined over centre and south…**
- **Maize crop ranged from maturity to drying and harvesting stages…**
- **Generally dry conditions expected during 1 – 10 April, 2008……**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the third dekad of March 2008, the northern parts of Malawi were being affected by the Inter-Tropical Convergence Zone (ITCZ) that is currently lying over Tanzania. The southern and central parts were under the influence of a ridge of a ridge from a high pressure area in the Indian ocean. As a result of these, the southern and central parts experienced mainly dry conditions while the northern most parts experienced relatively wet conditions. Only Baka, Euthini and Nkhata Bay in the north received decadal rainfall amounts exceeding 50 mm (Table 1). Despite the fact that the rainfall season is gradually coming to an end, the conditions in most parts represented a drier than normal situation for most areas of the country. (brown colour on Map 1).

Cumulative rainfall performance from October 2007 to 20 March, 2008 suggests the country has experienced generally normal to slightly above-normal rainfall amounts (green and blue colours on Map 2).

1.2 MEAN AIR TEMPERATURE

During the period under review, Malawi experienced warm to hot temperatures during the day. Mean daily maximum temperatures ranged from 23°C at Dedza to 32°C at Ngabu. However night temperatures were cold to mild due to clear slies experienced over most areas. Mean minimum temperatures ranged from 12°C at Dedza to 21°C at Karonga (Table 2).

1.3 MEAN DAILY WIND SPEEDS

Mean daily wind speeds measured at a height of two meters above the ground were light to moderate. The highest wind speed was reported at Salima (3.0 m/s or 10.8 Km/hr) while the lowest wind speed was recorded at Chitedze (0.8 m/s or 2.4 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Relative humidity conditions were generally high in most areas, ranging from 64% at Salima and Monkey Bay to 85% at Nkhata Bay.

2. AGROMETEOROLOGICAL ASSESSMENT

During the third dekad of March 2008, there was a general deterioration in spatial and temporal distribution of rainfall over the centre and south while good distribution was maintained over the north. Where rainfall was received it supported growth and development of tubers, enabled crops that were planted between late December and January to reach maturity stage. The late planted maize crop over the central areas was negatively affected as it lead to premature drying of the crop. But the dry conditions experienced in some parts particularly in the south facilitated drying and harvesting of matured crops.

The general crop stand in the fields was reported in good condition. Maize crop which is the staple food crop for Malawi ranged from maturity in the centre and north to drying and harvesting stages in some parts of the south. Apart from floods and dry spells that lasted for more than a month in some parts of the south, no major incidences of pests and diseases have been reported.
Prospects of a good harvest this season have been compromised by late start of rains in some parts, heavy rains and floods in January and unusually dry conditions in February and late March in some areas. The dry spell in February coincided with a more vulnerable stage of crop development and localized production deficits are expected. Due to this the overall crop production this season is likely to be less than last season.

3. PROSPECTS OF 2007/08 SEASON

Most climate prediction models predict at least a moderate La Niña to persist up to April and rainfall over Malawi is likely to be confined to highlands and lakeshore areas as the main rainfall season comes to an end.

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4. OUTLOOK FOR 1 – 10 April 2008

Meanwhile, short to medium-term forecasts suggest that Malawi will mainly be under south-easterly airflow during the forecast period. This will result in light rainfall mainly over southern and northern highlands during the first ten days of April 2008.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR

DEKAD 3 OF MARCH 2008: PERIOD 21 – 31

STATION NAME **SOUTHERN REGION**	DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL mm	**DEKADAL TOTAL AS % OF NORMAL**	TOTAL TO DATE mm	NORMAL TO DATE mm	**TOTAL TODATE AS % OF NORMAL**	RAINY DAYS >0.3 mm
Balaka Township	0	40	**0**	738.1	792	**93**	0
Bvumbwe Met.	1.8	50.2	**4**	1035.4	987.4	**105**	2
Chancellor College	0	82.9	**0**	1176.5	1315.8	**89**	0
Chichiri Met.	1.5	51.5	**3**	972.6	1003.6	**97**	1
Chikwawa Boma	0	26	**0**	749.3	688.6	**109**	0
Chikweo Agric.	0	68	**0**	1036.8	1013.4	**102**	0
Chileka Airport	0.8	40.9	**2**	907	834.1	**109**	1
Chingale Agric	0	41	**0**	1070.1	891.8	**120**	0
Chiradzulu Agric	0	48.1	**0**	821.3	977.5	**84**	0
Kasinthula Res. Stn.	0	21.2	**0**	927.5	667.2	**139**	0
Lujeri Tea Estate	14.4	131.2	**11**	2383.3	1744	**137**	3
Makoka Met	0.2	38.7	**1**	1136	943.8	**120**	0
Mangochi Met.	0	37.5	**0**	803.7	789.7	**102**	0
Monkey Bay Met.	0	28	**0**	1055	898.4	**117**	0
Mulanje Boma	0	105.4	**0**	2030.6	1438.5	**141**	0
Namiasi Agric	0	28.6	**0**	850.2	783.3	**109**	0
Nchalo Sucoma	0	22.4	**0**	755.5	630.4	**120**	0
Neno Agric	0	49.8	**0**	1277.7	1054.3	**121**	0
Ngabu Met.	0	35.5	**0**	971.1	721.7	**135**	0
Nsanje Boma	2.9	24.9	**12**	935.9	786.6	**119**	1
Ntaja Met.	0	52.3	**0**	1053.7	839.1	**126**	0
Satemwa Tea Est. No.1	10.2	63.9	**16**	1218.3	1165.3	**105**	2
Thyolo Met	7.4	56	**13**	1204.8	1046	**115**	1
Zomba Land Hus.	0	56.5	**0**	1290.4	1128.8	**114**	0
CENTRAL REGION							
Bunda College	0.7	28.2	**2**	856.6	805.2	**106**	1
Chileka Namitete	0	34.6	**0**	838.1	861.6	**97**	0
Chitedze Met.	0	42.9	**0**	916.8	858.3	**107**	0
Dedza Met	17.4	37	**47**	1015.2	886.3	**115**	1
Dowa Agric	0	51.3	**0**	976.8	843.1	**116**	0
Dwangwa Sugar Corp.	1.5	160.4	**1**	1277	1175.8	**109**	1
Kaluluma DTC	0	27.8	**0**	631.1	764.7	**83**	0
K.I.A Met	0	31.5	**0**	796	803.5	**99**	0
Lisasadzi	0	23.5	**0**	569.9	776.3	**73**	0
Malomo Agric	0	30.8	**0**	990.1	792.1	**125**	0
Mchinji Boma	0	52.8	**0**	1104.8	971.9	**114**	0
Mponela Agric	0	33.1	**0**	1007.8	783.8	**129**	0
Mwimba Research	4.8	28.4	**17**	649.2	885	**73**	1
Nathenje Agric	0	41.5	**0**	1026.3	836.5	**123**	0
Ntcheu – Nkhande	0	42	**0**	1223.6	1011.2	**121**	0
Ntchisi Boma	0	43.7	**0**	1006.8	821.1	**123**	0
Salima Met	0	65.1	**0**	1259.2	1165.9	**108**	0
Sinyala Agric	8	36.2	**22**	945.6	829.7	**114**	1
Dedza RTC	18.6	44.3	**42**	892	945	**94**	1
NORTHERN REGION							
Baka Res. Stn.	82.3	188.6	**44**	1086.9	1059.9	**103**	3
Bwengu Agric.	0	40.8	**0**	715.7	770	**93**	0
Chitipa Met	41.1	50.5	**81**	785.2	922.7	**85**	4
Euthini Agric.	103.2	45.9	**225**	801.4	763.1	**105**	5
Karonga Met.	46.8	116.6	**40**	943.4	870.4	**108**	4
Mzimba Met	23.9	42.9	**56**	708.7	840.5	**84**	5
Mzuzu Met.	5.1	77.6	**7**	1071.3	970.9	**110**	3
NkhataBay Met.	95.2	217.5	**44**	1012.4	1313.9	**77**	10

TABLE 2: AGROMETEOROLOGICAL PARAMETERS

FOR DEKAD 3 OF MARCH 2008

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	23.9	14.6	25.2	13.5	1.8	73
CHICHIRI	26.5	16.3	25.5	13.3	1.0	73
CHILEKA	26.4	17.3	27.6	16.0	2.7	80
CHITEDZE	26.6	14.4	27.7	13.6	0.8	68
CHITIPA	26.2	17.1	27.4	16.4	2.6	72
DEDZA	23.1	12.1	23.9	10.9	1.1	65
K.I.A.	25.7	13.6	26.5	11.4	1.3	71
KARONGA	28.4	21.4	29.1	20.4	1.1	78
MAKOKA	25.7	14.8	27.1	12.8	1.7	65
MANGOCHI	30.2	19.3	31.0	17.6	1.6	72
MONKEY BAY	29.6	20.4	30.1	19.1	1.9	64
MZIMBA	25.7	15.5	27.0	14.1	1.3	71
MZUZU	23.2	15.5	24.0	12.5	1.9	84
NGABU	31.5	19.8	31.6	17.8	1.2	67
NKHATA BAY	28.0	19.8	28.5	18.4	1.0	85
NTAJA	27.5	18.3	28.2	17.0	1.0	73
SALIMA	28.9	21.1	30.0	19.0	3.0	64

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