



10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services



Period: 1 – 10 March 2007

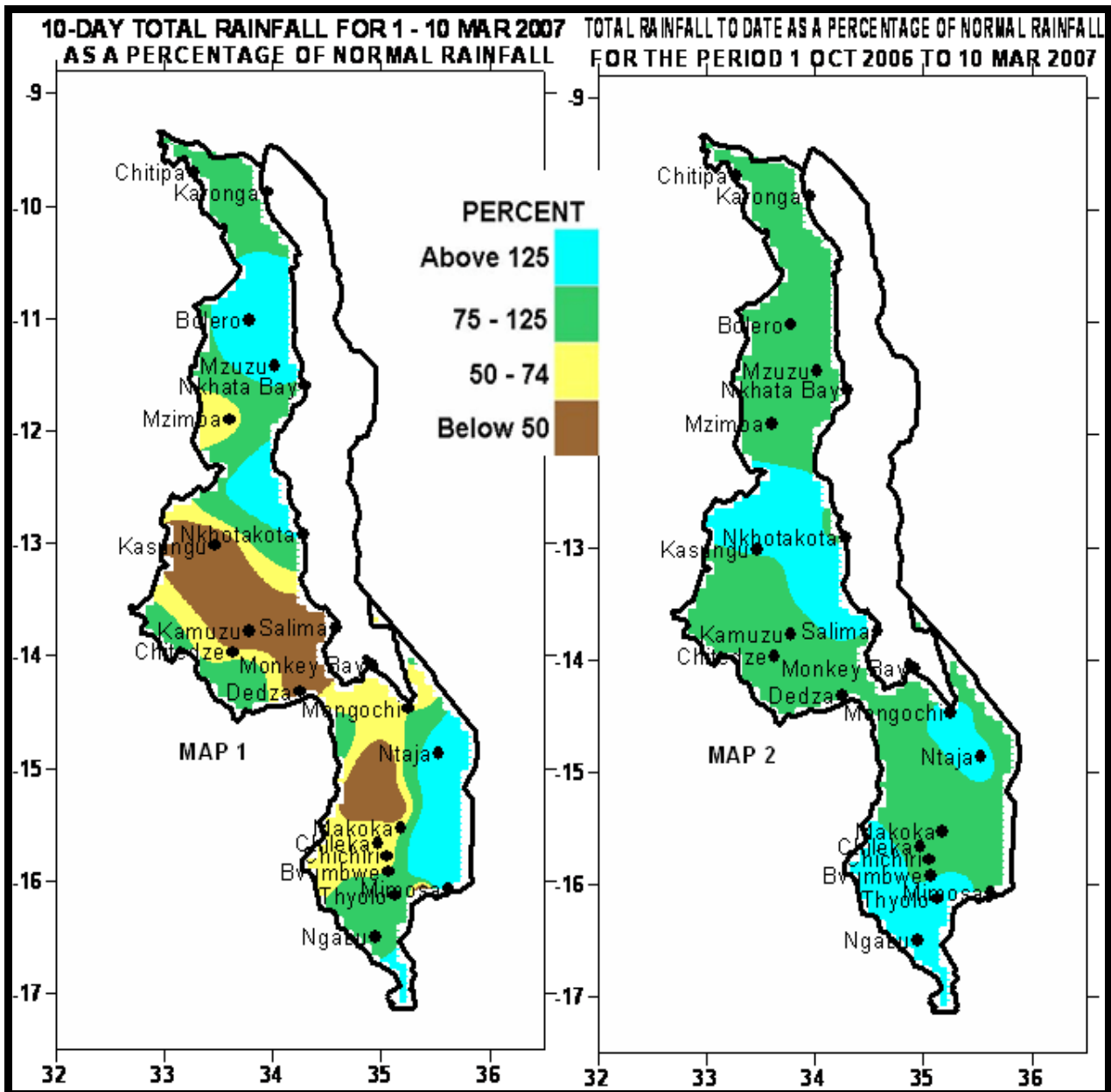
Season: 2006/2007

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HIGHLIGHTS

- A decline in rainfall experienced in some parts of Malawi...
- Maize crop mostly between maturity and drying stages countrywide...
- High rainfall to be confined to northern half during 11 – 20 March, 2007...



1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

In the first 10-days of March 2007, Malawi experienced below average rainfall amounts over some parts of southern and central Malawi and an improvement in rainfall performance over most parts of northern Malawi including Karonga which had received poor rains during the previous decade. The decline in rainfall was as a result of an inland ridge of high pressure which suppressed cloud development while the improvement was due to presence of a rain belt over northern Malawi. Areas that received poor rainfall in the centre included some parts of Kasungu, Ntchisi, Dowa, Lilongwe, Salima and Dedza while in the south poor rainfall performance was experienced in Mangochi, Balaka and some parts of Blantyre and in the north poor rains were received at Mzimba (yellow and brown colours on Map 1).

Cumulative rainfall performance from October 2006 through March 10, 2007 suggests that generally normal to above-normal rainfall amounts (green and light blue colours on Map 2) have been received throughout Malawi.

1.2 MEAN AIR TEMPERATURE

In the first ten days of March 2007, Malawi was generally warm to hot during the day. Mean daily maximum temperatures ranged from 23°C at Dedza to 31°C at Ngabu in lower Shire Valley. The highest absolute maximum temperature was reported at Ngabu (36.4°C) while the lowest absolute minimum temperature was reported at Mzimba (Table 2).

1.3 MEAN DAILY WIND SPEEDS

Mean daily wind speeds measured at a height of two meters above the ground were light. The highest speed was reported at Chileka (2.4 m/s or 8.6 Km/hr) while the lowest wind speed was recorded at Chitipa (0.5 m/s or 1.8 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Most areas continued to record high relative humidity values. Mean daily values ranged from 69% at Ngabu to 85% at Ntaja.

2. AGROMETEOROLOGICAL ASSESSMENT

In the first ten days of March 2007 despite a decline in rainfall over the south and centre, there was an improvement in rainfall performance in northern Malawi including Karonga south where reports indicated that some parts had experienced a dry spell of three weeks in February 2007. Light to moderate rains that fell in some parts of the south and centre was good for matured crops particularly maize which does not need a lot of water at maturity and drying stages. The rains also supported growth and development of tubers.

The general crop stand in the fields was reported in good condition. Maize crop which is the staple food crop for Malawians ranged mostly between maturity and drying stages. No major incidences of pests and diseases as well as prolonged dry spells have been reported this season. Another bumper harvest is expected this year. The first round crop production estimates from Ministry of Agriculture and Food Security suggest a national maize production forecast of around 3 million metric tonnes.

3. PROSPECTS OF 2006/07 SEASON

EL NIÑO WATCH: Most climate model forecast indicate that the El Nino event that started in about May 2006, ended towards the end of February 2007. Sea Surface temperatures in the Indian Ocean are still warmer than normal and this is responsible for cyclonic activity with heavy rainfall in the Western Indian Ocean. There are strong indications of a La Nina condition to develop in the months to come and to reach maturity towards midsummer of 2007/08. Meanwhile updated rainfall forecast indicates a declining trend of rainfall over Malawi.

4. OUTLOOK FOR 11 – 20 March 2007

Meanwhile, short to medium-term forecasts suggest that rains are possible coming to an end. There is a pressure build up from the south and this is expected to confine convective activities to northern half of the country. Therefore, there is a great likelihood of heavy rainfall being confined to northern half of Malawi and light rainfall in the south during the second ten days of March 2007.

**TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR
DEKAD 1 OF MARCH 2007: PERIOD 1 - 10**

STATION NAME	DEKADAL	DEKADA L	DEKADA L	TOTAL	NORMA L	TOTAL	RAINY
	TOTAL	NORMAL	TOTAL	TO	TO	TODATE	DAYS
	RAINFAL L		AS %	DATE	DATE	AS %	
SOUTHERN REGION	mm	mm	NORMAL	mm	mm	NORMA L	³ 0.3 mm
Balaka Township	1.5	62.8	2	888.3	720.4	123	1
Bvumbwe Met.	54.2	73.2	74	964.3	874.1	110	7
Chancellor College	80.5	110.7	73	1167.1	1127.8	103	5
Chichiri Met.	39.4	76.8	51	1007.5	887.1	114	7
Chileka Airport	44.1	53.6	82	857.9	736.7	116	6
Chiradzulu Agric	54.2	72.0	75	826.6	877.4	94	4
Liwonde Township	54.0	63.0	86	733.7	709.2	103	4
Lujeri Tea Estate	157.5	14.8	1064	1564.5	1466.3	107	5
Mangochi Met.	42.7	58.3	73	1058.3	704.0	150	5
Mimosa Met.	133.4	112.2	119	1260.2	1111.0	113	5
Monkey Bay Met.	47.3	60.6	78	756.5	851.8	89	4
Mulanje Boma	139.9	136.6	102	1415.9	1251.5	113	4
Namwera Agric	41.7	70.4	59	N/A	879.0	N/A	6
Nchalo Illovo	64.0	57.0	112	986.1	588.6	168	5
Ngabu Met.	43.5	52.1	83	933.4	645.0	145	5
Nsanje Boma	162.2	68.7	236	961.8	723.9	133	6
Ntaja Met.	103.0	55.8	185	1211.9	740.9	164	5
Satemwa Tea Est.	119.0	108.2	110	1361.7	1018.0	134	5
CENTRAL REGION							
Bunda College	69.3	60.7	114	842.7	743.5	113	5
Chitedze Met.	28.3	59.1	48	921.2	768.6	120	4
Dedza Met	24.0	63.5	38	864.1	806.4	107	4
Dowa Agric	23.2	61.6	38	884.7	740.9	119	3
Dwangwa Sugar Corp.	247.3	128.4	193	1192.7	928.7	128	7
K.I.A Met	17.1	72.4	24	678.7	727.4	93	6
Kasungu Met	5.2	62.1	8	1133.8	768.8	147	2
Mchinji Boma	75.9	66.8	114	963.6	862.4	112	3
Mwimba Research	4.0	100.9	4	957.6	824.0	116	1
Natural Res. College	24.7	47.2	52	N/A	717.9	N/A	5
Nkhotakota Met	165.2	121.1	136	1099.4	1017.6	108	6
Ntcheu - Nkhanda	92.4	79.9	116	995.3	921.5	108	4
Salima Met	14.8	111.3	13	1183.2	1023.0	116	3
Dedza RTC	28.9	86.8	33	1018.0	851.5	120	5
NORTHERN REGION							
Bolero Met	97.3	56.2	173	739.5	627.7	118	6
Bwengu Agric.	118.6	41.2	288	802.1	676.6	119	6
Chitipa Met	60.8	68.2	89	944.0	799.4	118	8
Emfeni Agric	89.7	66.0	136	N/A	679.7	N/A	6
Karonga Met.	83.5	76.3	109	691.0	662.6	104	6
Mzimba Met	36.2	73.9	49	841.5	750.4	112	9
Mzuzu Met.	131.1	83.8	156	963.6	830.7	116	8
NkhataBay Met.	105.0	92.5	114	1014.6	1046.5	97	8
Vinthukutu Agric	92.4	83.6	111	761.9	736.9	103	5

**TABLE 2: AGROMETEOROLOGICAL PARAMETERS
FOR DEKAD 1 OF MARCH 2007**

STATION	MAX TEMP	MIN TEMP	ABS MAX	ABS MIN	WIND SPEED	RH
	(°C)	(°C)	(°C)	(°C)	m/s	%
BOLERO	27.4	17.0	31.2	16.0	1.0	84
BVUMBWE	25.6	15.3	28.0	14.0	1.3	80
CHICHIRI	26.1	18.1	29.1	15.9	0.9	80
CHILEKA	27.8	20.3	31.3	18.0	2.4	77
NTAJA	28.9	21.1	30.3	19.0	0.6	85
CHITIPA	26.9	17.2	30.1	16.6	0.5	80
DEDZA	23.3	15.5	25.5	15.0	0.9	80
KASUNGU	27.6	18.6	29.5	17.4	1.2	78
KARONGA	29.9	21.5	32.0	20.0	1.3	76
K I A	26.4	17.5	28.7	16.7	1.3	81
MANGOCHI	30.5	22.1	32.0	21.0	1.4	78
MIMOSA	23.5	19.0	32.8	17.1	0.9	82
MONKEY BAY	30.1	22.2	31.7	20.7	1.4	79
MZIMBA	26.0	16.5	29.3	13.9	0.7	80
MZUZU	25.4	16.8	29.4	14.1	1.3	83
NGABU	31.2	22.9	36.4	20.9	1.5	69
NKHATA BAY	29.7	20.7	31.6	18.1	0.8	84
NKHOTA KOTA	28.6	21.9	30.7	19.5	1.3	84
SALIMA	29.3	22.2	31.7	20.2	2.1	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