10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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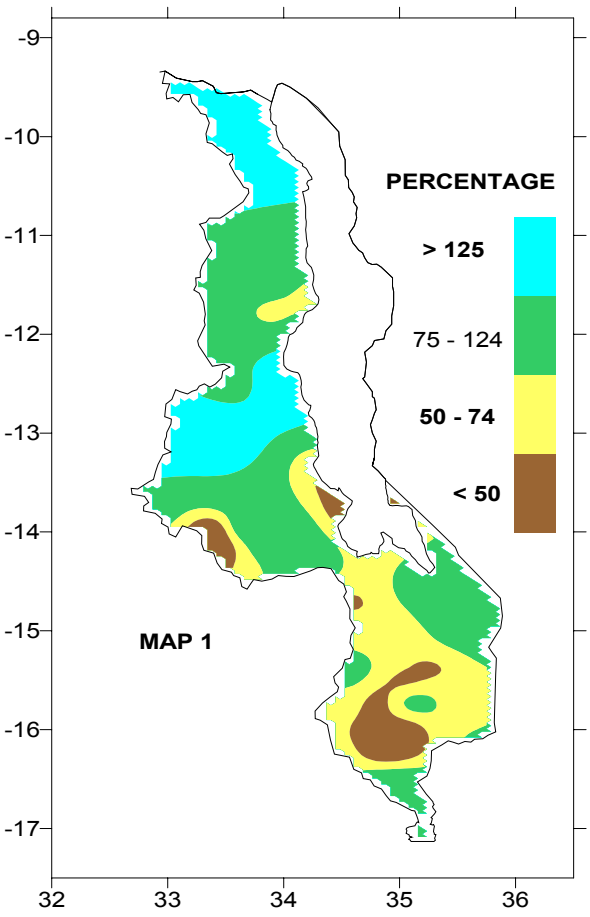
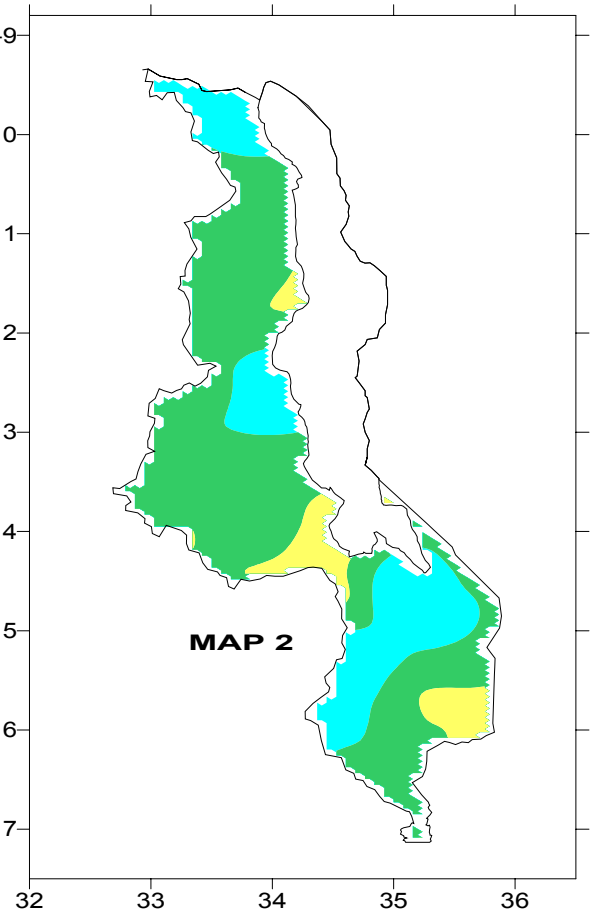
HIGHLIGHTS

- **A further reduction in rainfall experienced in most parts of Malawi…**
- **Maize crop mostly between maturity and drying stages countrywide…**
- **Rainfall activities expected mainly over the south during 21 – 31 March, 2007.**

10 - DAY TOTAL RAINFALL FOR 11 - 20 MARCH 2007 AS A PERCENTAGE OF NORMAL RAINFALL



TOTAL RAINFALL TODATE AS A % OF NORMAL RAINFALL FOR THE PERIOD 1 OCT 2006 TO 20 MAR 2007



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the second dekad of March 2007, Malawi experienced relatively dry conditions mainly over the southern half. However, the northern half was generally wet. Karonga and Chitipa and areas around Dwangwa in Nkhotakota received above normal rainfall amounts. The drier conditions over the southern half of the country was due to the persistence of a ridge from the Indian Ocean High pressure area that suppressed cloud development. On the other hand, the northern half was under the influence of the equatorial trough that was positioned over southern Tanzania, hence the wet conditions. According to climatology, rains are expected to tail off during this period starting from the south progressing northwards. Map 1 indicates the drier southern half (in yellow and brown colours) and a wetter northern half of Malawi (in blue and green colours)

Cumulative rainfall performance from October 2006 to 20 March, 2007 suggests the country has experienced generally normal to above-normal rainfall amounts (green and blue colours on Map 2) with a few pockets of below normal rainfall areas (yellow areas).

1.2 MEAN AIR TEMPERATURE

During the period under review, Malawi experienced mainly warm to hot temperature conditions during the day. Mean daily maximum temperatures ranged between 24°C and 33°C at Dedza and Ngabu, respectively. The highest absolute maximum temperaure was reported at Ngabu (35.2°C) while the lowest absolute minimum temperature was 14.6°C, 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 (2.3 m/s or 8.3 Km/hr) while the lowest wind speed was recorded at Mzimba (0.6 m/s or 2.2 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Relative humidity conditions were generally high in most areas. Mean daily values ranged from 63% at Ngabu to 81% at Mzuzu and Nkhatabay.

2. AGROMETEOROLOGICAL ASSESSMENT

During the period under review, there was a further reduction of rainfall activities over the south and centre, whereas the northern areas continued to experience favourable rains from the previous dekad. Generally light to moderate rains that was received in some parts of the south and centre were good for mature 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 Malawi 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 except for some parts of Karonga where a three week moderate dry spell was reported. There are high prospects of a good harvest once again this season. The first round crop production estimates from Ministry of Agriculture and Food Security suggest a national maize production forecast of around three 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 21 – 31 March 2007

Short to medium-term forecasts suggest that the southern areas will experience a pick in rainfall activities during the first half of the forecast period while during the second half only isolated cases of rainfall activities should be expected countrywide.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 2 OF MARCH 2007: PERIOD 11 - 20

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS % OF	TOTAL TO DATE	NORMAL TO DATE	TOTAL TODATE AS % OF	RAINY DAYS
SOUTHERN REGION	**mm**	**mm**	**NORMAL**	**mm**	**mm**	**NORMAL**	**> 0.3**
Balaka Township	3.5	31.6	11	891.8	752	119	1
Bvumbwe Met.	20.3	63.1	32	984.6	937.2	105	1
Chancellor College	28.5	105.1	27	1195.6	1232.9	97	5
Chichiri Met.	54.8	65	84	1062.3	952.1	112	2
Chileka Airport	15	56.5	27	872.9	793.2	110	1
Chiradzulu Agric	10	52	19	836.6	929.4	90	0
Kasinthula Res. Stn.	11.8	29.6	40	1115.4	646	173	1
Liwonde Township	15.2	45.6	33	748.9	754.8	99	1
Lujeri Tea Estate	18.3	146.5	12	1582.8	1612.8	98	2
Makoka Met	27.4	52	53	904.6	905.1	100	3
Mangochi Met.	0.4	48.2	1	1058.7	752.2	141	1
Mimosa Met.	39.2	99.9	39	1299.4	1210.9	107	2
Monkey Bay Met.	0.2	18.6	1	863.2	870.4	99	0
Mulanje Boma	15.2	81.6	19	1431.1	1333.1	107	1
Namiasi Agric	0	44.4	0	938.9	754.7	124	0
Naminjiwa Agric	6	44.2	14	837.3	859.9	97	2
Namwera Agric	64	59.5	108	612.9	938.5	65	2
Nchalo Sucoma	3.5	19.4	18	989.6	608	163	1
Ngabu Met.	0	41.2	0	933.4	686.2	136	0
Nsanje Boma	0	37.8	0	961.8	761.7	126	0
Ntaja Met.	12.3	45.9	27	1224.2	786.8	156	2
Satemwa Tea Est.	4.9	83.4	6	1366.6	1101.4	124	2
Thyolo Met	42.8	74.2	58	1098.5	990	111	2
Zomba R.T.C	63.4	74.4	85	1445.5	1072.3	135	3
CENTRAL REGION							
Chitedze Met.	5.3	46.8	11	926.5	815.4	114	2
Dedza Met	6.1	42.9	14	870.2	849.3	102	1
Dwangwa Sugar Corp.	79	86.7	91	1271.7	1015.4	125	4
K.I.A Met	1.8	44.6	4	680.5	772	88	2
Kasungu Met	7.6	36.9	21	1141.4	805.7	142	2
Mchinji Boma	3.8	56.7	7	1085	919.1	118	1
Mlangeni Njolomole	0	58.7	0	751.2	902.4	83	0
Nathenje Agric	67	51.4	130	951.8	795	120	3
Natural Res. College	19.4	51.4	38	240.3	769.3	31	4
Ntcheu - Nkhande	0	47.7	0	995.3	969.2	103	0
Ntchisi Boma	20.5	44.2	46	1612.6	777.4	207	3
Salima Met	23.6	77.8	30	1206.8	1100.8	110	1
NORTHERN REGION							
Bolero Met	0	38.1	0	739.5	665.8	111	0
Bwengu Agric.	3.6	52.6	7	805.7	729.2	110	1
Chitipa Met	52.9	72.8	73	996.9	872.2	114	4
Karonga Met.	72	91.2	79	763	753.8	101	5
Mzimba Met	6.9	47.2	15	848.4	797.6	106	4
Mzuzu Met.	9.8	62.6	16	973.4	893.3	109	2
NkhataBay Met.	7.9	49.9	16	1022.5	1096.4	93	3
Vinthukutu Agric	124.6	93	134	886.5	829.9	107	6

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 2 OF MARCH 2007

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	28.5	16.7	30.5	15.5	N/A	77
BVUMBWE	26.5	15.3	28.2	13.3	1.3	75
CHICHIRI	26.6	17.4	29.0	16.0	1.0	72
CHILEKA	28.5	19.1	31.1	18.0	2.3	77
CHITIPA	26.6	17.6	28.4	17.1	1.2	76
DEDZA	24.4	15.4	25.8	15.5	0.9	N/A
KASUNGU	29.0	18.0	30.3	17.3	1.1	72
KARONGA	29.9	21.8	31.4	21.1	1.0	79
K I A	27.7	16.6	29.1	15.0	1.4	75
MAKOKA	27.7	17.2	29.3	15.0	0.9	74
MANGOCHI	31.1	22.3	33.5	19.3	1.2	72
MIMOSA	30.3	19.7	32.2	15.1	0.9	75
MONKEY BAY	30.9	22.1	32.3	19.7	1.2	70
MZIMBA	26.9	15.9	29.0	14.6	0.6	73
MZUZU	25.6	16.0	27.4	14.2	1.1	81
NGABU	33.1	22.4	35.2	20.2	1.3	63
NKHATA BAY	30.0	20.5	31.4	19.1	0.7	81
NTAJA	26.2	20.2	30.6	18.2	0.8	75
SALIMA	30.2	22.0	32.0	19.1	1.7	72

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