



10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services



Period: 01 – 10 February 2008

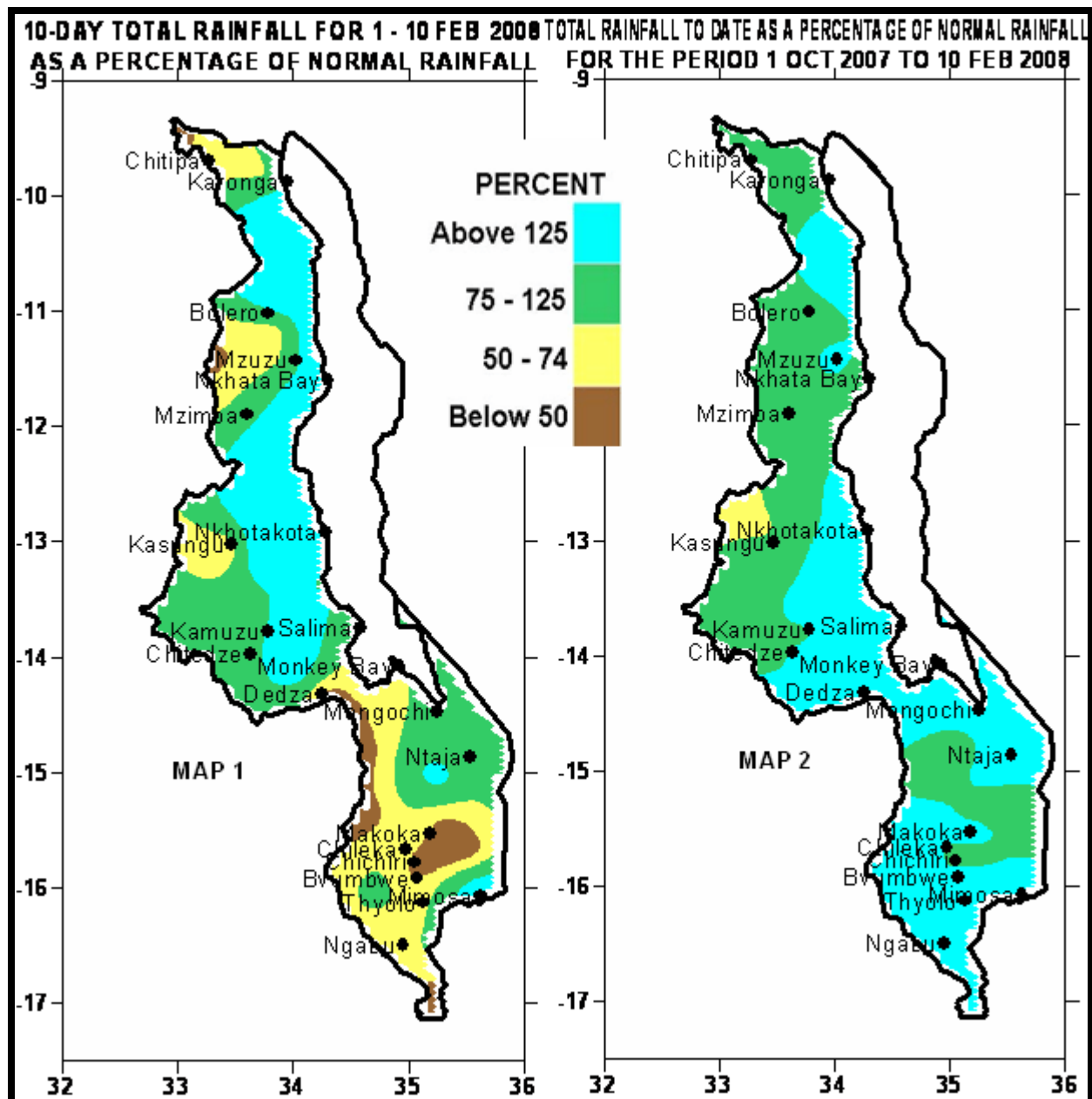
Season: 2007/2008

Issue No.13

Release date: 14 February 2008

HIGHLIGHTS

- Reduced rainfall brought relief to southern Malawi...
- Maize crop ranges from vegetative to maturity stages ...
- Mostly dry conditions expected during 11 – 20 February 2008...



1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the first ten days of February 2008, the main rain bearing systems, namely moist Congo Air and Inter Tropical Convergence Zone, shifted northwards to central and northern Malawi and relaxed a bit compared to the last ten days of January 2008. Hence generally light to moderate rainfall were experienced over most parts of the country except for the lakeshore areas where incessant heavy rains continued (light blue colour on Map 1). Southern Malawi which has been receiving above average rains since late December registered generally below average rainfall amounts (yellow and brown colours) during the period under review. See Map 1 and Table 1.

Cumulative rainfall performance from October 2007 up to 10 February 2008 indicated that generally normal to above-normal rainfall (green and light blue colours on Map 2) have been received over Malawi.

1.2 MEAN AIR TEMPERATURE

During the first dekad of February 2008 mean daily maximum temperatures remained over most areas in Malawi were warm to hot. Higher mean daily maximum temperatures were confined to Shire Valley and Lakeshore areas. The highest mean maximum temperature was reported at Ngabu (31.8°C) in Chikwawa district while the lowest maximum was registered at Dedza and Mzuzu (23.0°C). At the same time, average daily minimum temperatures ranged from 15.2°C at Dedza to 22.9°C at Ngabu (Table 2).

1.3 MEAN DAILY WIND SPEEDS

At a height of two meters above the ground average daily wind speeds were light. The highest speed was registered at Salima (2.4 m/s or 8.6 Km/hr) while the lowest wind speed was recorded at Nkhata Bay (0.7m/s or 2.5 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Most areas registered mean daily relative humidity values within the range of 70 and

90%. The highest was registered at Nkhata Bay (90%) while the lowest was reported at Mangochi. See Table 2. Outbreaks of fungal diseases are normally promoted by persistence humid conditions.

2. AGROMETEOROLOGICAL ASSESSMENT

There was considerable reduction in rainfall amounts and distribution over most parts of Malawi except over lakeshore areas where above average rainfall amounts continued during the first ten days of February 2008. A general reduction in rainfall amounts and intensity brought relief to flood affected areas as dry conditions allowed floodwater to recede and soil water logging conditions to improve. Road and telecommunication infrastructure to and from flood affected areas improved as well.

The general crop stand in the fields was satisfactory. Due to variations in planting dates, crops over Malawi were at various growth stages ranging from advanced vegetative stage to flowering and maturity stages.

3. PROSPECTS OF 2007/08 SEASON

Current dynamical and statistical climate models predict that La Nina conditions will persist during January to March 2008 and there is likelihood of Malawi experiencing with floods in flood prone areas. Already above average rainfall was experienced in January and floods affected many districts.

4. OUTLOOK FOR 11 – 20 February 2008

Meanwhile, short to medium-term forecasts indicate that mostly dry conditions are expected particularly over the south and some parts of central Malawi as the active belt gradually shifts to extreme northern parts of Malawi. These dry conditions will be a major concern particularly for areas where most crops have reached flowering and maturity stages. If dry conditions persist for two weeks then yields of most crops will be negatively affected. Water deficiency between flowering and maturity stages adversely influences yield more than at any other times.

**TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR
DEKAD 1 OF FEBRUARY 2008: PERIOD 01 - 10**

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE	NORMAL TO DATE	TOTAL TODATE AS % NORMAL	RAINY DAYS
SOUTHERN REGION	mm	mm	NORMAL	mm	mm	NORMAL	³ 0.3 mm
Bvumbwe Met.	41.2	80.0	52	891.4	669.8	133	6
Chancellor College	94.3	113.8	83	830.9	855.8	97	6
Chichiri Met.	19.2	82.3	23	796.3	679.5	117	4
Chikwawa Boma	55.5	60.7	91	663.7	479.4	138	2
Chileka Airport	54.9	70.9	77	710.7	570.6	125	4
Chiradzulu Agric	26.4	79.8	33	652.9	678.7	96	2
Kasinthula Res. Stn.	53.3	54.2	98	872.9	441.5	198	3
Liwonde Township	106.6	72.8	146	723.6	531.2	136	5
Lujeri Tea Estate	263.7	126.3	209	1996.3	1202.4	166	6
Mangochi Met.	82.7	86.8	95	725.7	531.9	136	5
Mimosa Met	126.9	108.0	118	912.2	844.5	108	6
Monkey Bay Met.	87.0	124.7	70	887.3	670.1	132	7
Naminjiwa Agric	36.2	83.3	43	737.0	640.7	115	4
Nchalo Sucoma	36.9	69.4	53	645.3	435.6	148	3
Neno Agric	51.1	140.5	36	1207.5	749.6	161	3
Ngabu Met.	47.3	69.6	68	887.3	489.8	181	4
Nsanje Boma	23.2	66.1	35	794.5	552.5	144	5
Ntaja Met.	56.0	62.6	89	904.2	563.8	160	5
Satemwa Tea Est. No.1	61.2	105.7	58	1044.9	778.1	134	4
Zomba RTC	45.8	101.1	45	1111.1	780.4	142	3
CENTRAL REGION							
Bunda College	67.9	58.5	116	739.6	558.5	132	5
Chitedze Met.	68.3	72.1	95	730.4	586.6	125	8
Dedza Met	35.7	72.3	49	821.8	598.4	137	5
Dowa Agric	133.3	66.7	200	847.6	548.3	155	7
Dwangwa Sugar Corp.	251.3	85.7	293	959.9	678.8	141	8
Kaluluma DTC	94.9	57.6	165	413.3	517.3	80	8
K.I.A Met	88.3	68.8	128	667.3	547.6	122	9
Kasungu Met	51.0	88.9	57	401.5	562.8	71	8
Lifuwu	136.4	123.5	110	477.3	743.1	64	8
Lisasadzi	63.8	77.8	82	437.1	547.5	80	5
Malomo Agric	190.0	81.0	235	719.9	515.8	140	9
Mchinji Boma	111.3	81.6	136	809.7	657.0	123	8
Mlangeni Njolomole	40.6	92.9	44	933.5	627.8	149	2
Mponela Agric	83.0	85.1	98	802.3	519.6	154	6
Mwimba Research	52.8	76.5	69	538.4	569.1	95	5
Nathenje Agric	126.5	66.6	190	870.8	540.2	161	8
Nkhotakota Met	248.6	94.0	264	1112.1	709.7	157	9
Ntcheu - Nkhanda	26.6	92.0	29	947.7	697.8	136	4
Ntchisi Boma	75.8	72.3	105	798.2	545.1	146	7
Salima Met	70.6	99.1	71	1078.1	735.3	147	5
Dedza RTC	47.3	103.2	46	684.3	653.6	105	4
NORTHERN REGION							
Baka Res. Stn.	46.8	51.0	92	456.4	497.5	92	4
Bolero Met	66.2	59.2	112	495.7	469.8	106	8
Bwengu Agric.	38.3	57.5	67	542.8	526.1	103	2
Chitipa Met	54.0	89.9	60	528.8	605.2	87	6
Karonga Met.	52.1	49.9	104	477.8	472.7	101	4
Mzimba Met	67.1	66.5	101	528.0	551.6	96	7
Mzuzu Met.	60.5	58.0	104	864.1	625.5	138	9
NkhataBay Met.	227.3	87.1	261	759.4	849.2	89	10
Vinthukutu Agric	427.6	57.7	741	1239.9	538.0	230	9

**TABLE 2: AGROMETEOROLOGICAL PARAMETERS
FOR DEKAD 1 OF FEBRUARY 2008**

STATION	MAX TEMP	MIN TEMP	ABS MAX	ABS MIN	WIND SPEED	RH
	(°C)	(°C)	(°C)	(°C)	m/s	%
BOLERO	26.2	17.7	28.4	17.1	1.0	84
BVUMBWE	25.7	16.4	27.0	15.5	1.8	79
CHICHIRI	25.7	17.5	27.0	16.0	0.9	74
CHILEKA	27.1	19.9	29.9	18.3	2.8	81
CHITEDZE	26.0	17.9	27.4	16.9	0.8	80
CHITIPA	25.0	17.1	27.4	17.0	0.8	79
DEDZA	23.0	15.2	23.9	12.8	1.1	79
K.I.A.	25.2	17.5	26.4	16.3	1.6	81
KARONGA	28.3	21.6	29.9	21.0	0.9	82
KASUNGU	26.0	18.7	27.4	17.9	1.3	86
MANGOCHI	30.0	21.7	31.5	20.5	1.2	70
MIMOSA	28.7	18.5	30.6	17.0	1.2	77
MONKEY BAY	29.1	21.6	30.7	19.3	1.6	78
MZIMBA	24.9	17.0	26.5	16.1	0.8	82
MZUZU	23.0	17.0	27.0	15.0	1.4	83
NGABU	31.8	22.9	34.0	21.5	1.3	75
NKHATA BAY	27.5	20.9	24.3	20.7	0.7	70
NKHOTAKOTA	27.2	20.8	N/A	N/A	N/A	72
NTAJA	28.1	20.8	28.4	19.3	1.0	78
SALIMA	28.4	22.2	29.7	20.4	2.4	79

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