



# 10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services



Period: 21 – 29 February 2008

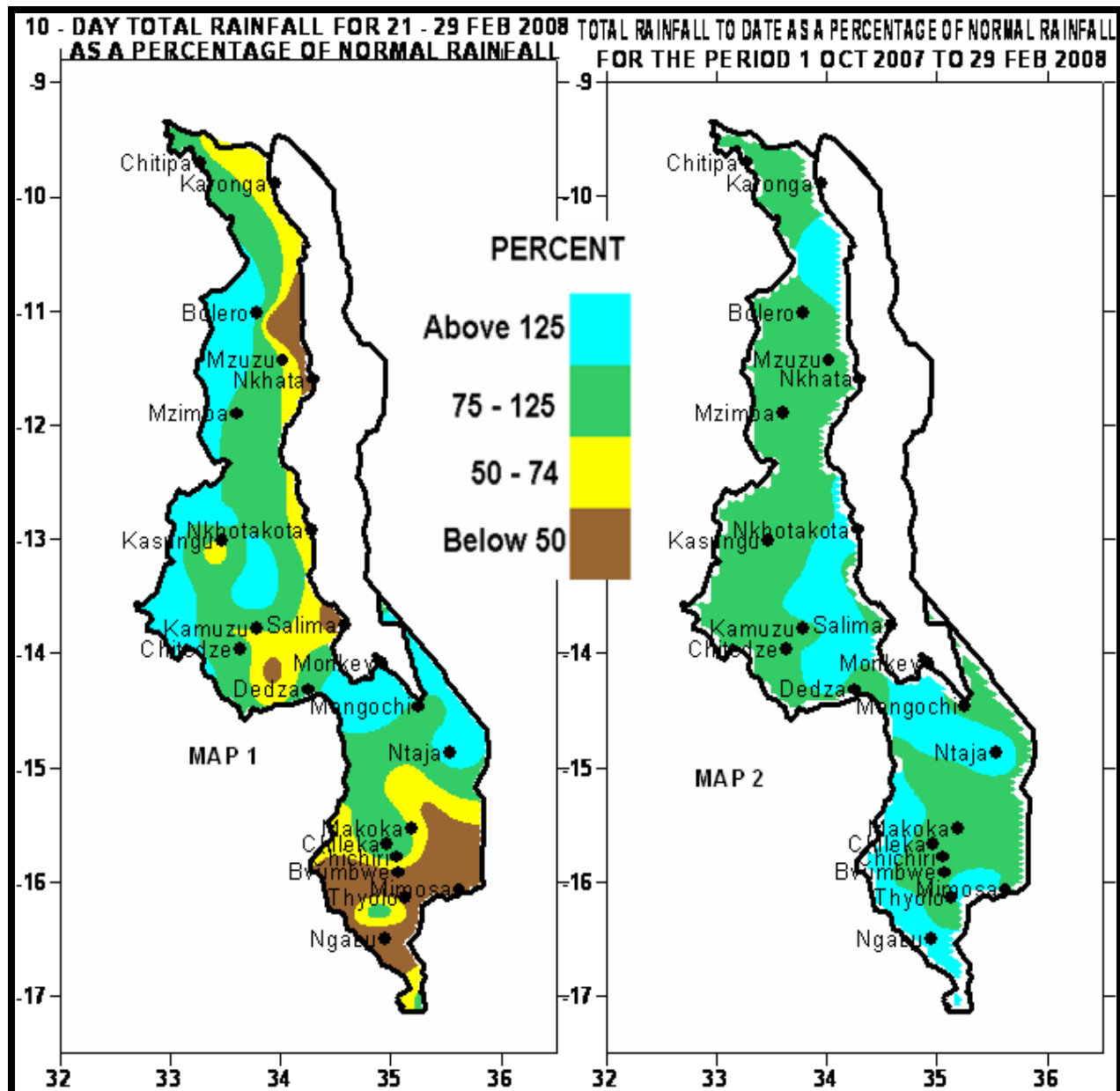
Season: 2007/2008

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## HIGHLIGHTS

- Rains brought some relief to moisture stressed southern Malawi ...
- Maize crop ranges from flowering to maturity and drying stages ...
- Further improvement in rainfall expected during 01 – 10 March, 2008...



## 1. WEATHER SUMMARY

### 1.1 RAINFALL SITUATION

In the last dekad of February 2008, fairly moist easterly airflow covered most parts of Malawi except for a few areas particularly over the extreme southern parts of Malawi. As a result there was a considerable improvement in rainfall amounts and distribution over most areas (green and light blue colours on Map 1) except for a few areas (brown colours on map 1) which continued to experience dry conditions. Some areas particularly in lower Shire Valley reported nil rainfall throughout the period. Very few areas recorded a total rainfall of more than 100mm during the period and these areas in the south included Monkey Bay (123mm) while in the centre included Mchinji Boma (124mm) and Mkanda (101mm). See Table 1.

Cumulative rainfall performance from October 2007 through February 29, 2008 indicates that generally normal to above-normal (green and light blue colours on Map 2) rainfall amounts have been received over Malawi.

### 1.2 MEAN AIR TEMPERATURE

During the third dekad of February 2007 average daily maximum temperatures were generally warm to hot. Higher average daily maximum temperatures were confined to Shire Valley and Lakeshore areas. The highest absolute maximum temperature was reported at Ngabu (36.8°C) while the lowest absolute maximum temperature was registered at Dedza (24.6°C). At the same time, the lowest absolute minimum temperatures ranged from 13.6°C at Bolero to 22.4°C at Ngabu (Table 2).

### 1.3 MEAN DAILY WIND SPEEDS

At a height of two meters above the ground, the average daily wind speeds were generally light. The highest speed was reported at Chileka (2.7 m/s or 9.7 Km/hr) while the lowest wind speed was recorded at Chitedze (0.5m/s or 1.8 Km/hr). See Table 2.

### 1.4 MEAN RELATIVE HUMIDITY

Generally relative humidity values show mixed pattern. Average daily values continued to decline over some areas while some areas experienced a

slight improvement during the period. Average daily relative humidity values ranged from 57% at Nkhota Kota to 82% at Bolero.

## 2. AGROMETEOROLOGICAL ASSESSMENT

In the last dekad of February 2008, rains resumed over most areas that were affected by the dry spell that lasted for more than 20 days in some areas. These rains however came a bit too late to save late planted maize crop that was scorched while at critical flowering and grain filling stages. This crop could not recover particularly in low lying areas where moisture and heat stress was worse. However, the rains have improved water resources and supported growth and development of tuber crops.

The general crop stand in the fields was reported in good condition with Maize crop ranging from flowering to maturity and drying stages. Early planted hybrid maize particularly in the south was at drying stage where more sunshine hours are required. This crop is being threatened by the resumption of rains.

So far due to incidences of soil water logging conditions, leaching of nutrients, floods and dry spells, the overall national maize production is expected to be less than last season

## 3. PROSPECTS OF 2007/08 SEASON

Current dynamical and statistical climate models predict that La Nina conditions will persist during the second half of the season (January to March 2008). So far above average rainfall continued in January with floods over most parts of Malawi while most of the south experienced a dry spell in the first 20 days or so of February before the rains resumed in the last days. More rains are anticipated in March.

## 4. OUTLOOK FOR 01 – 10 March 2008

Meanwhile, short to medium-term rainfall forecasts indicate a further improvement in rainfall amounts and distribution over most parts of Malawi during the first 10 days of March 2008.

**TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR  
DEKAD 3 OF FEBRUARY 2007: PERIOD 21 - 29**

STATION NAME	DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL mm	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE mm	NORMAL TO DATE mm	TOTAL TODATE AS % NORMAL	RAINY DAYS <sup>3</sup> 0.3 mm
<b>SOUTHERN REGION</b>							
Bvumbwe Met.	21.7	52.0	42	913.3	800.9	114	3
Chancellor College	32.4	79.3	41	1052.0	1017.1	103	3
Chichiri Met.	49.2	50.7	97	845.5	810.3	104	3
Chikwawa Boma	0.0	37.2	0	665.8	567.9	117	0
Chileka Airport	55.6	44.7	124	766.3	683.1	112	4
Chiradzulu Agric	35.0	51.1	68	691.9	805.4	86	3
Kasinthula Res. Stn.	0.0	41.4	0	872.9	529.2	165	0
Liwonde Township	31.7	54.8	58	759.9	646.2	118	3
Lujeri Tea Estate	72.2	110.3	65	2076.7	1451.5	143	3
Mangochi Met.	43.3	45.5	95	773.3	645.7	120	2
Monkey Bay Met.	123.1	42.0	293	1014.4	791.2	128	5
Mulanje Boma	25.7	85.8	30	1553.5	1114.9	139	3
Naminjiwa Agric	18.4	49.7	37	755.4	765.6	99	4
Nchalo Sucoma	50.4	39.4	128	697.5	531.6	131	4
Neno Agric	36.4	50.1	73	1243.9	888.0	140	2
Ngabu Met.	0.0	44.7	0	901.3	592.9	152	0
Nsanje Boma	28.4	35.9	79	830.2	655.2	127	1
Ntaja Met.	90.8	55.9	162	997.2	685.1	146	3
Thyolo Met	14.2	42.8	33	1069.2	828.1	129	3
Zomba RTC	33.1	70.6	47	1193.3	919.8	130	3
<b>CENTRAL REGION</b>							
Bunda College	18.0	67.0	27	797.1	682.8	117	4
Chitedze Met.	52.7	58.4	90	844.6	709.5	119	4
Dedza Met	55.6	61.1	91	905.6	742.9	122	6
Dwangwa Sugar Corp.	50.4	68.9	73	1032.1	800.3	129	4
K.I.A Met	37.4	49.6	75	721.8	655.0	110	4
Kasiya Agric	38.5	68.1	57	321.9	767.2	N/A	1
Kasungu Met	73.4	58.9	125	474.9	706.7	N/A	3
Malomo Agric	70.9	48.8	145	823.3	630.3	131	3
Mchinji Boma	124.1	60.9	204	945.3	795.6	119	8
Mkanda Met	100.8	53.7	188	868.3	713.8	122	6
Mponela Agric	88.5	51.1	173	948.8	651.1	146	6
Mwimba Research	27.6	79.4	35	599.0	723.1	83	2
Nathenje Agric	29.0	56.7	51	928.8	679.7	137	3
Nkhotakota Met	30.0	89.2	34	1169.2	896.5	130	3
Salima Met	21.3	80.0	27	1114.2	911.7	122	1
Sinyala Agric	62.1	54.5	114	798.9	701.8	114	3
Dedza RTC	55.1	42.3	130	754.6	764.7	99	4
<b>NORTHERN REGION</b>							
Bolero Met	65.7	30.6	215	606.1	571.5	106	5
Bwengu Agric.	0.0	38.2	0	635.8	635.4	100	0
Chitipa Met	40.6	50.6	80	653.7	731.2	89	6
Karonga Met.	31.2	60.3	52	532.0	586.3	91	1
Mzimba Met	56.4	50.1	113	610.7	676.5	90	4
Mzuzu Met.	41.3	51.8	80	931.1	746.9	125	6
NkhataBay Met.	7.4	24.6	30	790.2	954.0	83	5

**TABLE 2: AGROMETEOROLOGICAL PARAMETERS  
FOR DEKAD 3 OF FEBRUARY 2008**

STATION	MAX TEMP	MIN TEMP	ABS MAX	ABS MIN	WIND SPEED	RH
	(°C)	(°C)	(°C)	(°C)	m/s	%
<b>BOLERO</b>	27.5	16.0	29.4	13.6	1.0	82
<b>BVUMBWE</b>	26.7	16.4	29.0	14.6	1.3	74
<b>CHICHIRI</b>	27.3	17.6	28.8	16.7	0.6	69
<b>CHILEKA</b>	30.0	19.4	31.1	18.2	2.7	72
<b>CHITEDZE</b>	27.8	17.5	28.8	16.9	0.5	75
<b>CHITIPA</b>	26.8	16.9	29.1	16.1	1.8	77
<b>DEDZA</b>	23.4	15.2	24.8	13.8	0.8	70
<b>K.I.A.</b>	26.3	16.6	27.3	15.5	1.2	81
<b>KARONGA</b>	29.5	21.8	31.0	21.0	0.8	77
<b>KASUNGU</b>	28.3	17.6	30.0	16.0	1.1	81
<b>MANGOCHI</b>	32.3	21.1	33.6	20.0	1.0	67
<b>MONKEY BAY</b>	30.1	21.6	31.1	19.8	1.4	76
<b>MZIMBA</b>	26.5	16.1	29.0	15.1	0.7	73
<b>MZUZU</b>	25.6	16.2	27.7	14.4	1.2	79
<b>NGABU</b>	32.8	23.6	36.8	22.4	0.8	58
<b>NKHATA BAY</b>	30.4	20.2	32.4	19.1	0.6	80
<b>NKHOTAKOTA</b>	28.7	21.0	30.6	20.3	1.2	57
<b>NTAJA</b>	30.5	20.2	31.6	19.2	0.9	70
<b>SALIMA</b>	30.1	21.5	31.1	20.5	1.5	74

**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