



# Malawi 10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services



Period: 01 – 10 February 2009

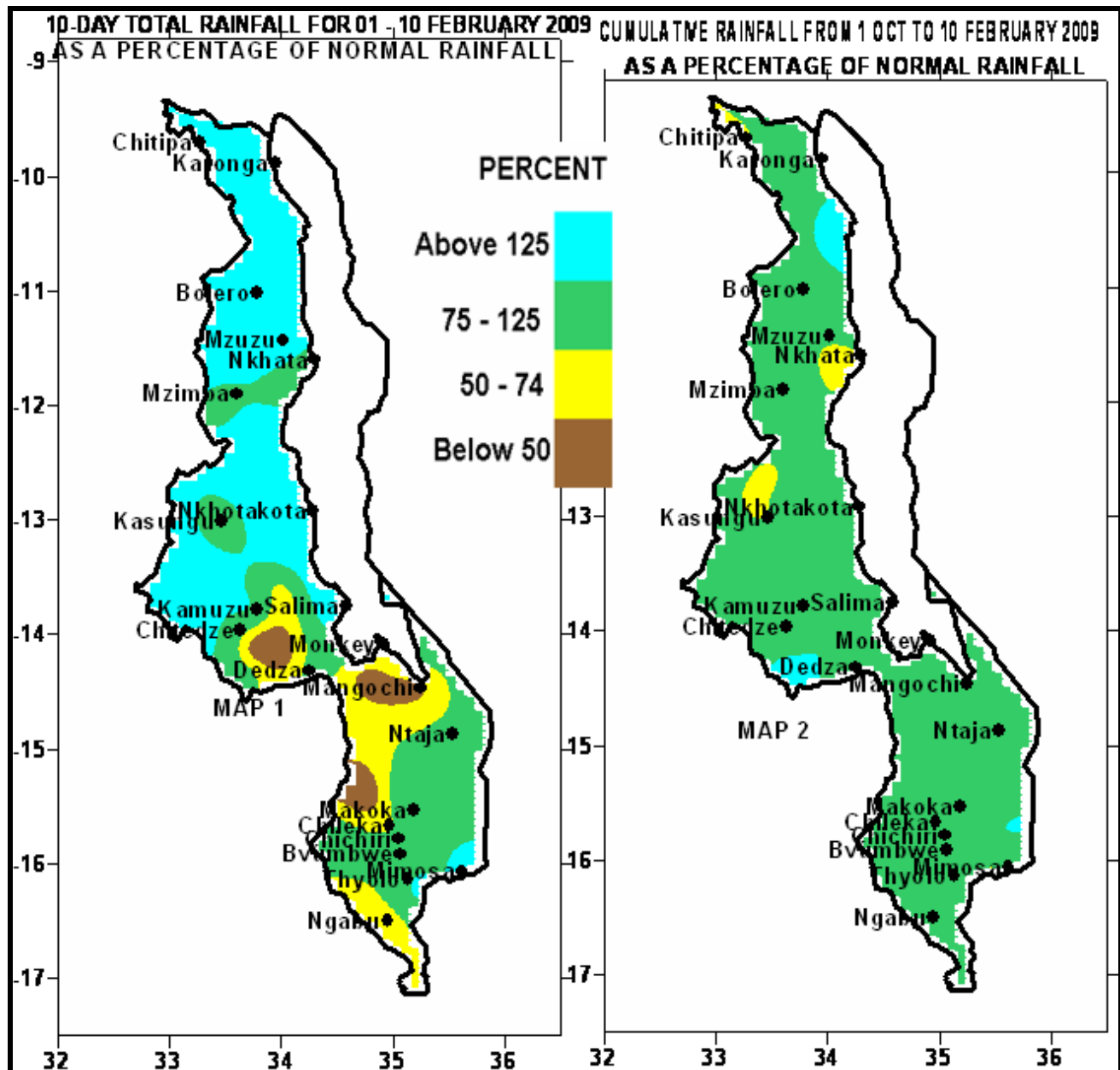
Season: 2008/2009

Issue No.13

Release date: 13 February 2008

## HIGHLIGHTS

- Generally good rains received over Malawi except a few areas...
- Maize crop ranges from vegetative to maturity stages ...
- More rains expected during 11 – 20 February 2009...



## 1. WEATHER SUMMARY

### 1.1 RAINFALL SITUATION

During the first 10-days of February 2009, moist and unstable Congo Air brought rains to most parts of Malawi. Very few areas experienced drier than normal weather (yellow and brown colours on map 1). Such areas mostly included the western sector of southern Malawi and around Nathenje in Lilongwe. Above normal 10-day cumulative rainfall amounts (light blue colours on Map 1) were registered over the northern half of Malawi where most areas reported between seven and ten rainfall days. Areas that had accumulated 10-day rainfall totals of more than 150mm during the period were mostly confined to the centre and north. Such areas included Dwangwa, Nkhotakota, Salima, Mchinji Boma, Mkanda in the centre and Chitipa, Karonga and Lupembe up north. See Table 1.

Cumulative rainfall performance by 10 February 2009 showed significant improvement over most parts of Malawi. Most areas had received normal rainfall amounts (**Green colour in Map 2**) and very few areas had received below average (**yellow colour on Map 2**) and above average rainfall (**light blue colour on Map 2**).

### 1.2 MEAN AIR TEMPERATURE

During the first dekad of February 2009 mean daily maximum temperatures 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 (33.5°C) in Chikwawa district while the lowest maximum was registered at Kamuzu International Airport in Lilongwe (23.2°C). At the same time, average daily minimum temperatures ranged from 15.9°C at Dedza to 23.1°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 Chileka (3.0 m/s or 10.8 Km/hr) while the lowest wind speed was recorded at Chitipa (0.1m/s or 0.4 Km/hr). See Table 2.

### 1.4 MEAN RELATIVE HUMIDITY

Most areas registered mean daily relative humidity values within the range of 73 and 84%. The highest was registered at Mzuzu while the lowest was reported at Mimosa. See Table 2. Outbreaks of fungal diseases are normally promoted by persistence humid conditions.

## 2. AGROMETEOROLOGICAL ASSESSMENT

In the first 10-days of February 2009 most areas continued to receive good rains with good distribution and amounts. The good rainfall distribution and amount coupled with sunny periods reported in most places were good for growth and development of various crops. In some cases the rains supported planting of tuber crops.

Most crops were reported doing well at various developmental stages. In some parts of the south and centre Maize has attained maturity stage. In other areas the crop was doing well at vegetative stage and farmers continued weeding and finalising application top dressing fertilisers. Yield of most crops are anticipated to be higher than last season as long as good rains persist up to end of February,

### 3. PROSPECTS OF 2008/09 SEASON

Climate prediction models continue to suggest that by end of April 2009 the greater part of Malawi should expect normal rainfall amounts with poor distribution in both space and time. Already there has been a delay in the onset of the wet season in some parts of the country. Some floods have already been reported in Chikwawa in lower Shire. Externally, the influence of climate change cannot be ignored and one of the indicators is occurrence of extreme climatic events such as floods and drought. Low lying areas such as the Shire valley and lakeshore areas are more vulnerable to floods and droughts

### 4. OUTLOOK FOR 11 – 20 February 2009

The short to medium-term forecasts indicate that both the Inter Tropical Convergence Zone and moist and unstable Congo Air are likely to remain active over Malawi. Therefore moderate to locally heavy rains are expected to continue during the second ten days of February 2009.

**TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR  
DEKAD 1 OF FEBRUARY 2009: PERIOD 01 - 10**

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE	NORMAL TO DATE	TOTAL TODATE AS %	RAINY DAYS
<b>SOUTHERN REGION</b>	mm	mm	NORMAL	mm	mm	NORMAL	<sup>3</sup> 0.3 mm
Bvumbwe Met.	52.5	80.0	66	785.3	669.8	117	4
Chancellor College	104.2	113.8	92	649.7	855.8	76	6
Chichiri Met.	74.6	82.3	91	733.3	679.5	108	6
Chileka Airport	41.0	70.9	58	606.0	570.6	106	5
Chingale Agric	95.8	80.4	119	503.4	616.2	82	4
Kasinthula Res. Stn.	62.6	54.2	115	278.7	441.5	63	5
Liwonde Township	70.0	72.8	96	403.3	531.2	76	4
Lujeri Tea Estate	235.9	126.3	187	952.1	1202.4	79	10
Mpilipili	90.3	N/A	N/A	646.4	N/A	N/A	4
Makoka Met	105.7	82.3	128	711.9	630.4	113	6
Mangochi Met.	40.6	86.8	47	427.1	531.9	80	4
Mimosa Met.	104.2	108.0	96	863.2	844.5	102	6
Monkey Bay Met.	133.2	124.7	107	567.4	670.1	85	7
Mpemba Vet	102.9	84.7	121	821.8	748.3	110	7
Mulanje Boma	126.3	96.8	130	676.9	925.4	73	6
Mwanza Boma	75.5	88.8	85	565.2	630.8	90	5
Naminjiwa Agric	79.5	83.3	95	886.7	640.7	138	5
Nankumba Agric	28.4	83.4	34	684.9	559.0	123	3
Nchalo Sucoma	50.6	69.4	73	388.7	435.6	89	3
Neno Agric	17.0	140.5	12	715.4	749.6	95	2
Ngabu Met.	36.8	69.6	53	437.2	489.8	89	4
Nsanje Boma	41.0	66.1	62	578.0	552.5	105	6
Ntaja Met.	54.3	62.6	87	639.4	563.8	113	8
Satemwa Tea Est. No.1	97.1	105.7	92	479.0	778.1	62	4
Thyolo Met	160.6	92.2	174	688.5	702.3	98	5
<b>CENTRAL REGION</b>							
Bunda College	14.4	58.5	25	489.4	558.5	88	3
Chitedze Met.	64.0	72.1	89	525.4	586.6	90	6
Dedza Met	74.8	72.3	103	658.8	598.4	110	4
Dowa Agric	28.7	66.7	43	548.0	548.3	100	6
Dwangwa Sugar Corp.	231.0	85.7	270	508.2	678.8	75	9
Kaluluma DTC	87.8	57.6	152	377.0	517.3	73	6
K.I.A Met	81.5	68.8	118	561.1	547.6	102	7
Kasungu Met	76.2	88.9	86	417.8	562.8	74	7
Mchinji Boma	160.3	81.6	196	796.1	657.0	121	5
Mkanda Met	191.2	80.7	237	610.0	622.3	98	7
Mponela Agric	103.0	85.1	121	655.4	519.6	126	6
Mtakataka Airwing	104.4	123.2	85	984.8	577.4	171	6
Nathenje Agric	8.5	66.6	13	721.5	540.2	134	1
Nkhotakota Met	251.9	94.0	268	813.6	709.7	115	10
Ntcheu – Nkhande	71.0	92.0	77	899.2	697.8	129	4
Ntchisi Boma	123.3	72.3	171	684.9	545.1	126	7
Salima Met	204.0	99.1	206	780.9	735.3	106	7
<b>NORTHERN REGION</b>							
Bolero Met	114.9	59.2	194	449.3	469.8	96	9
Chitipa Met	194.7	89.9	217	436.1	605.2	72	9
Chintheche Agric	54.3	90.5	60	523.9	809.5	65	5
Karonga Met.	161.0	49.9	323	597.4	472.7	126	0
Lupembe	166.5	58.4	285	412.5	417.6	99	8
Mbawa Res. Stn	77.0	66.8	115	559.5	537.8	104	5
Mzimba Met	78.5	66.5	118	523.2	551.6	95	8
Mzuzu Met.	115.5	58.0	199	486.3	625.5	78	9
NkhataBay Met.	76.0	87.1	87	623.4	849.2	73	10
Vinthukutu Agric	114.9	57.7	199	940.7	538.0	175	7

**TABLE 2: AGROMETEOROLOGICAL PARAMETERS  
FOR DEKAD 1 OF FEBRUARY 2009**

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	27.2	17.4	25.9	16.5	N/A	83
BVUMBWE	25.7	17.5	27.5	16.3	1.8	79
CHICHIRI	26.2	18.2	29.3	17.2	0.5	75
CHILEKA	28.2	20.3	28.8	19.1	3.0	79
CHITEDZE	27.5	17.9	28.2	16.2	0.7	79
CHITIPA	26.1	17.2	27.4	16.9	0.1	83
DEDZA	23.4	15.9	24.4	14.6	0.9	N/A
K.I.A.	23.2	17.2	26.6	16.0	1.4	79
KARONGA	28.7	21.4	30.0	21.0	0.9	80
KASUNGU	26.0	18.5	29.0	17.4	1.2	82
MAKOKA	25.2	18.4	N/A	N/A	1.4	78
MANGOCHI	29.7	22.1	31.8	21.5	1.4	77
MIMOSA	28.9	19.6	30.2	17.2	1.1	73
MONKEY BAY	29.0	22.9	30.0	21.7	1.4	80
MZIMBA	25.0	16.8	27.4	15.6	0.6	83
MZUZU	25.2	16.8	26.0	15.8	1.4	84
NGABU	33.5	23.1	35.6	22.0	1.4	78
NKHATA BAY	29.2	21.0	30.6	19.8	0.7	87
NKHOTAKOTA	26.8	20.9	28.6	20.0	N/A	85
NTAJA	28.2	20.8	29.2	20.0	1.1	81
SALIMA	28.2	21.4	29.6	20.5	1.1	81

**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