



10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services



Period: 11 – 20 February 2008

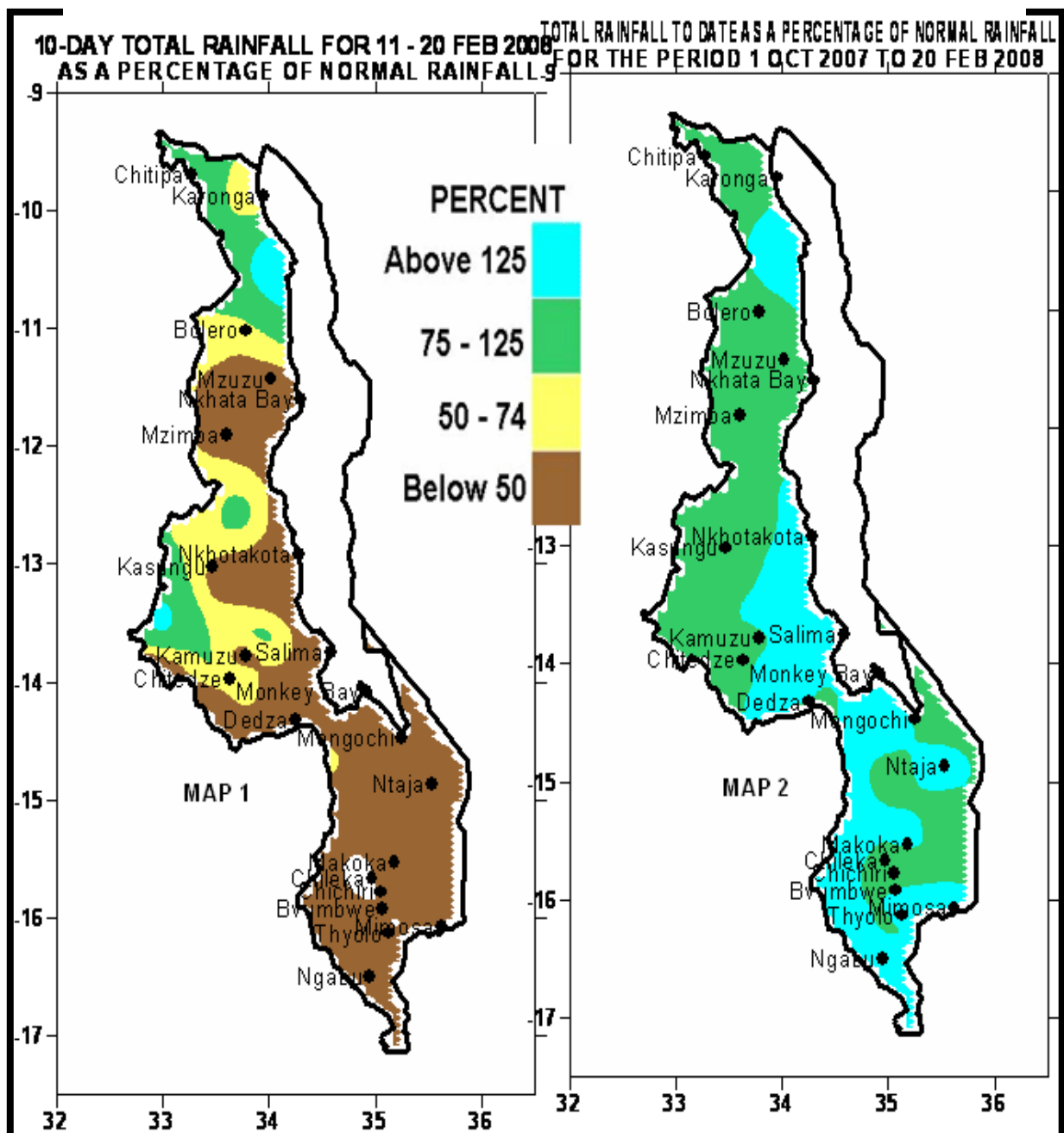
Season: 2007/2008

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HIGHLIGHTS

- Largely deficient rainfall experienced over Malawi...
- Dry spell threatens prospects for good harvest ...
- Mostly dry conditions to persist in the south during 21 – 29 February, 2008...



1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

In the second ten days of February 2008, both main rain bearing systems, namely moist Congo Air and Inter Tropical Convergence Zone, continued to relax over northern and central Malawi while Tropical Cyclone IVAN which passed through Madagascar caused dry weather over southern Malawi. As a result generally dekadal rainfall amounts and distribution continued to decline over most parts of the country (yellow and brown colours on Map 1). Further analysis of rainfall for the period shows that some parts of the country particularly in the south had been dry for the whole ten-day period. Such areas included Chichiri in Blantyre, Naminjiwa in Phalombe, Kasinthula in Chikwawa, Neno in Mwanza. Otherwise the entire southern Malawi experienced below average dekadal rainfall amounts. Above average dekadal rainfall amounts were confined to very few including Vinthukutu in Karonga, Mkanda in Mchinji, See Table 1.

Cumulative rainfall performance from October 2007 through to 20 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 second ten-days of February 2008 average daily maximum temperatures over Malawi remained warm to hot. Higher temperatures were confined to Shire Valley and Lakeshore areas. The highest average maximum temperature was reported at Ngabu (32.4°C) in lower Shire Valley while the lowest was registered at Dedza (23.7°C). At the same time, the lowest absolute minimum temperatures ranged from 12.0°C at Dedza to 21.2°C at Karonga (Table 2).

1.3 MEAN DAILY WIND SPEEDS

Mean daily wind speeds at a height of two meters above the ground were light. The highest speed was reported at Chileka (3.0 m/s or 10.8 Km/hr) . See Table 2.

1.4 MEAN RELATIVE HUMIDITY

There was a further reduction in average daily relative humidity values in the second ten days of February 2008 compared to the previous dekad. From Table 2 average daily values ranged from 67% at Chichiri and Nkhotakota to 80% at Mzuzu while in the first dekad the values ranged from 70 to 90%.

2. AGROMETEOROLOGICAL ASSESSMENT

The decline in rainfall amounts and distribution that started in the first ten-days of February continued and worsened particularly in the south (brown colour on Map 1) during the second ten days of February 2008. As a result in some parts of the south especially in low lying areas crops started wilting and premature drying due to moisture and heat stress. Poor rainfall performance spread to central Malawi where crops had to survive on residual moisture following good rains in the previous dekads. The rainfall situation in the north where generally the rains started late is much better than in the south. In the south if dry conditions continue for the next ten days then yields of most crops particularly the late planted crop will be negatively affected, reaching total crop failure in some areas. This could compromise prospects of another good harvest this season.

The general crop stand in the fields was reported in good condition with Maize crop ranging from flowering to maturity stages. Early planted hybrid maize in the south is at drying stage though in some cases the crop is drying prematurely due to moisture and heat stress. So far apart from soil water logging conditions, leaching of nutrients, floods and dry spells that have been experienced in some parts of the country no major incidences of pests and diseases have been reported.

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 some parts of southern half of Malawi started experiencing a decline in rainfall from early in February..

4. OUTLOOK FOR 21 – 29 February 2008

Meanwhile, short to medium-term forecasts indicate a further decline in rainfall amounts and distribution over most parts of Malawi particularly over southern half during the period 21 – 29 February 2008.

**TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR
DEKAD 2 OF FEBRUARY 2008: PERIOD 11 - 20**

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.	0.2	79.1	0	891.6	748.9	119	0
Chancellor College	25.8	82.0	31	925.3	937.8	99	3
Chichiri Met.	0.0	80.1	0	796.3	759.6	105	0
Chikwawa Boma	2.1	51.3	4	665.8	530.7	125	1
Chikweo Agric.	3.9	86.6	5	939.9	742.9	127	1
Chileka Airport	0.0	67.8	0	710.7	638.4	111	0
Chingale Agric	16.0	79.5	20	913.3	695.7	131	2
Chiradzulu Agric	4.0	75.6	5	656.9	754.3	87	2
Chizunga Factory	2.0	86.4	2	1250.0	897.5	139	1
Kasinthula Res. Stn.	0.0	46.3	0	872.9	487.8	179	0
Lujeri Tea Estate	8.2	138.8	6	2004.5	1341.2	149	2
Makoka Met	5.4	70.0	8	952.3	700.4	136	2
Mangochi Met.	4.3	68.3	6	730.0	600.2	122	2
Masambanjati Agric	4.0	95.3	4	847.7	873.1	97	1
Mimosa Met.	7.2	94.0	8	792.5	938.5	84	1
Monkey Bay Met.	4.0	79.1	5	891.3	749.2	119	1
Namiasi Agric	13.5	69.7	19	735.4	621.7	118	2
Naminjiwa Agric	0.0	75.2	0	737.0	715.9	103	0
Namwera Agric	5.5	77.4	7	591.2	744.3	79	1
Nchalo Sucoma	1.8	56.6	3	647.1	492.2	131	1
Neno Agric	0.0	88.3	0	1207.5	837.9	144	0
Ngabu Met.	14.0	58.4	24	901.3	548.2	164	2
Nsanje Boma	7.3	66.8	11	801.8	619.3	129	2
Ntaja Met.	2.2	65.4	3	906.4	629.2	144	2
Satemwa Tea Est. No.1	0.8	75.9	1	1045.7	854.0	122	1
Thyolo Met	1.0	83.0	1	1055.0	785.3	134	2
Zomba RTC	49.1	68.8	71	1160.2	849.2	137	4
CENTRAL REGION							
Bunda College	39.5	57.3	69	779.1	615.8	127	2
Chitedze Met.	61.5	64.5	95	791.9	651.1	122	2
Dedza Met	28.2	83.4	34	850.0	681.8	125	4
Dowa Agric	66.1	72.1	92	913.7	620.4	147	4
Dwangwa Sugar Corp.	21.8	52.6	41	981.7	731.4	134	5
Kaluluma DTC	35.3	59.0	60	448.6	576.3	78	3
K.I.A Met	17.1	57.8	30	684.4	605.4	113	4
Lifuwu	37.4	102.4	37	1101.7	845.5	130	2
Lisasadzi	22.1	63.9	35	459.2	611.4	75	1
Malomo Agric	14.9	65.7	23	752.4	581.5	129	3
Mchinji Boma	11.5	77.7	15	821.2	734.7	112	1
Mkanda Met	57.5	37.8	152	767.5	660.1	116	2
Mlangeni Njolomole	62.4	93.3	67	995.9	721.1	138	3
Mponela Agric	58.0	80.4	72	860.3	600.0	143	2
Mwimba Research	33.0	74.6	44	571.4	643.7	89	2
Nathenje Agric	29.0	82.8	35	899.8	623.0	144	2
Nkhotakota Met	27.1	97.6	28	1139.2	807.3	141	5
Ntcheu - Nkhande	36.7	80.3	46	984.4	778.1	127	2
Ntchisi Boma	16.1	71.8	22	814.3	616.9	132	2
Salima Met	14.8	96.4	15	1092.9	831.7	131	2
Sinyala Agric	1.7	64.9	3	736.8	647.3	114	1
Dedza RTC	15.2	68.8	22	699.5	722.4	97	1
NORTHERN REGION							
Baka Res. Stn.	28.8	63.4	45	485.2	560.9	87	3
Bolero Met	44.7	71.1	63	540.4	540.9	100	4
Chitipa Met	84.3	75.4	112	613.1	680.6	90	5
Emfeni Agric	55.7	49.2	113	483.1	562.9	86	4
Karonga Met.	23.0	53.3	43	500.8	526.0	95	5
Mzimba Met	26.3	74.8	35	554.3	626.4	88	3
Mzuzu Met.	25.7	69.6	37	889.8	695.1	128	5
NkhataBay Met.	23.4	80.2	29	782.8	929.4	84	2
Vinthukutu Agric	135.9	65.4	208	1375.8	603.4	228	4

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

STATION	MAX TEMP	MIN TEMP	ABS MAX	ABS MIN	WIND SPEED	RH
	(°C)	(°C)	(°C)	(°C)	m/s	%
BOLERO	27.9	16.6	30.0	14.5	1.0	75
BVUMBWE	25.7	15.2	26.7	12.6	1.3	72
CHICHIRI	25.7	16.0	27.0	14.5	0.7	67
CHILEKA	28.0	18.1	29.2	14.3	3.0	70
CHITEDZE	27.8	16.3	29.9	13.9	0.7	69
CHITIPA	26.6	16.9	28.4	16.6	1.1	73
DEDZA	23.7	14.1	24.7	17.0	0.8	71
K.I.A.	26.5	16.2	27.8	14.0	1.3	73
KARONGA	29.0	21.6	30.5	21.2	1.0	78
MAKOKA	27.2	16.3	28.2	14.0	1.2	71
MANGOCHI	30.8	20.7	33.9	18.4	1.2	71
MIMOSA	29.5	18.0	30.4	15.0	1.0	70
MONKEY BAY	29.5	21.7	30.5	19.0	1.3	72
MZIMBA	27.1	16.1	29.0	14.5	1.0	69
MZUZU	25.2	15.9	27.8	13.5	1.6	80
NGABU	32.4	21.9	34.0	19.9	0.9	69
NKHATA BAY	29.6	19.6	31.4	17.7	0.9	76
NKHOTAKOTA	28.4	21.0	29.2	19.5	1.1	67
NTAJA	28.6	19.8	30.6	17.6	0.7	73
SALIMA	29.7	21.0	31.2	16.4	1.8	68

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