10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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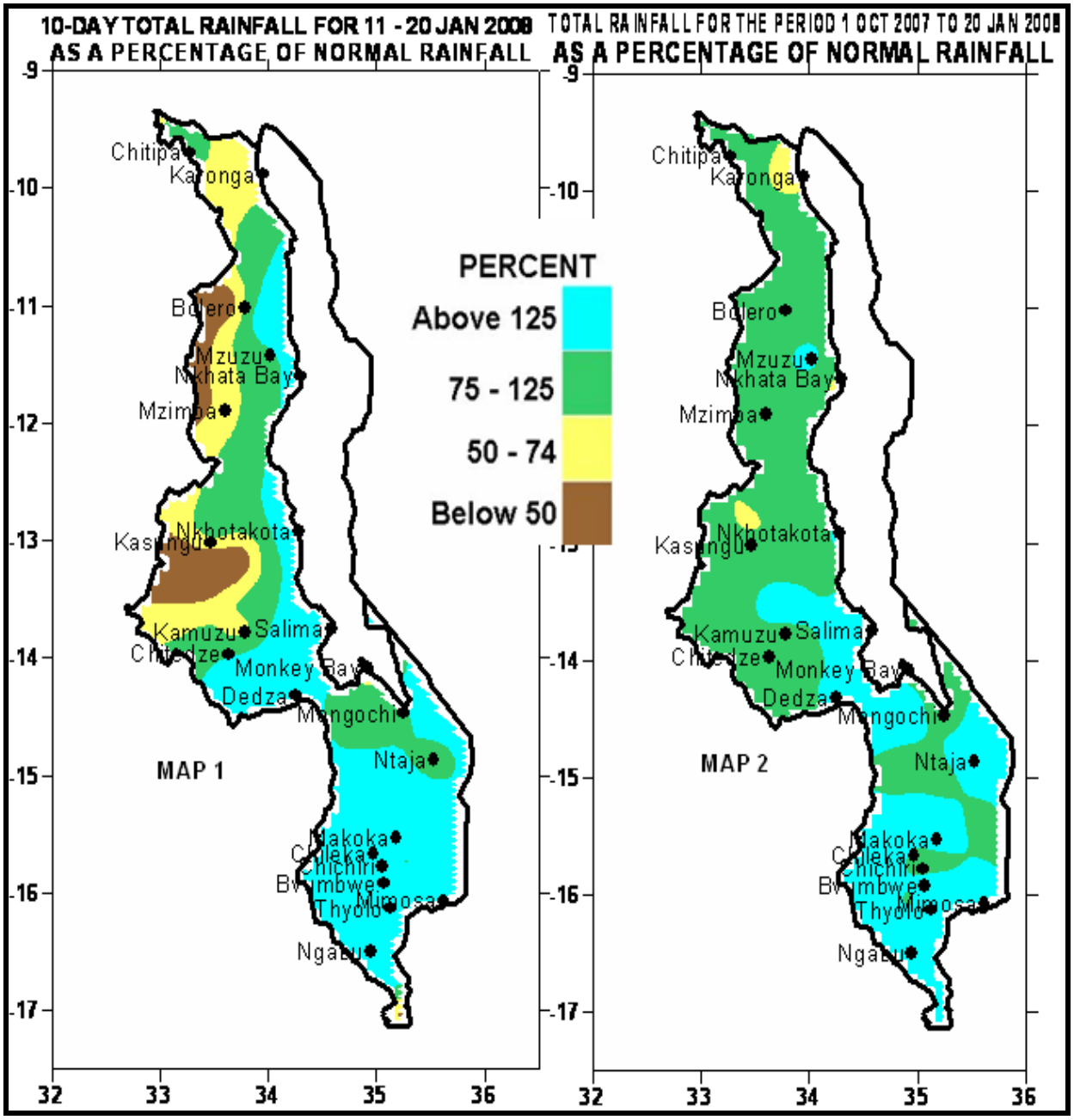
HIGHLIGHTS

- **Heavy rains caused floods in Chikwawa …**
- **Maize crop in good condition ranging from vegetative to flowering stages …**
- **Widespread locally heavy rains to continue during 21 – 31 January, 2008…**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the second dekad of January 2008, the Inter Tropical Convergence Zone maintained widespread locally heavy rains particularly over the south and some parts of central Malawi. As a result most areas experienced normal to above normal dekadal rainfall amounts (green to light blue colours on Map 1) with good spatial and temporal distribution. Some areas reported ten day total rainfall amounts of more than 200mm. Such high rainfall amounts in the south were confined to southern highlands where Lujeri had 352mm, Mulanje Boma 258mm, Makoka 206mm. On the other hand below normal rainfall amounts were experienced over the western sector of the northern half of Malawi including areas around Kasungu, Mzimba, Bolero and Karonga Boma. See Map 1 and Table 1.

Cumulative rainfall performance from October 2007 up to 20 January 2008 indicated that generally Malawi has received normal rainfall amounts (green colour) with pockets of above-normal rainfall (light blue colour) and spots of below normal rainfall situation (yellow colour) on Map 2.

1.2 MEAN AIR TEMPERATURE

During the second dekad of January 2008 mean daily maximum temperatures over most areas in Malawi were in the warm to hot category. Higher mean daily maximum temperatures were confined to Shire Valley and Lakeshore areas. The lowest maximum was reported at Dedza (22.4°C) while the highest was reported at Ngabu (32.8°C). At the same time, mean daily minimum temperatures ranged from 16.1°C at Dedza to 23.5°C at Ngabu (Table 2).

1.3 MEAN DAILY WIND SPEEDS

Mean daily wind speeds measured at a height of two meters above the ground continued to light. The highest wind speed was reported at Chileka (1.9 m/s or 6.8 Km/hr) while the lowest wind speed was recorded at Chichiri, Chitedze and Mzimba (0.5m/s or 1.8 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Mean daily relative humidity values indicate that humid conditions prevailed over most parts of Malawi. The highest was registered at Salima (90%) while the lowest was registered at Mzimba, Mzuzu and Nkhotakota (77%). See Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

During the second dekad of January 2008 substantial rainfall amounts were received in most parts of the country. The rains satisfied the daily requirements of most crops. However, in some areas incessant heavy rains resulted in soil water logging and leaching of soil nutrients. Heavy rains caused floods that killed three people, destroyed crops, livestock and houses in Chikwawa district. Apart from these problems the good rains received so far this season have not only benefited crop production, but also the development of pastures as well. Pasture and drinking water for livestock are readily available, resulting in improvement of nutritional status of most animals.

The general crop stand in the fields was reported in good condition with Maize ranging from vegetative to flowering and cobbing stages. In the some parts of north due late onset of the main rains Maize is at early vegetative stage while in the south and some parts of the centre some of the hybrid maize that was planted mid November particularly over low altitudes was at flowering stage. So far, no major dry spells and incidences of pests and diseases have been reported. If the good rains continue falling up to March many farmers face prospects of another good harvest.

3. PROSPECTS OF 2007/08 SEASON

Most of the dynamical and statistical climate models predict La Nina conditions to persist during January to March 2008. During this period Malawi is likely to experience normal to above normal total rainfall amounts with likelihood of floods.

4. OUTLOOK FOR 21 – 31 January 2008

Meanwhile, models for medium range forecasts indicate that both the Inter Tropical Convergence Zone and moist Congo Air are likely to remain active over Malawi. Therefore widespread locally heavy rains will maintain wet conditions over most parts of the country during the period 21 – 31 January 2008.

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

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS %	TOTAL TO DATE	NORMAL TO DATE	TOTAL TO DATE AS %	RAINY DAYS
SOUTHERN REGION	**mm**	**mm**	**NORMAL**	**mm**	**mm**	**NORMAL**	**[3] 0.3 mm**
Bvumbwe Met.	181.0	76.2	**238**	711.2	499.3	**142**	9
Chancellor College	161.1	92.3	**175**	736.6	641.2	**115**	10
Chichiri Met.	173.7	74.7	**233**	638.0	504.2	**127**	10
Chileka Airport	102.8	50.2	**205**	463.4	420.4	**110**	10
Chingale Agric	149.8	75.9	**197**	681.6	441.0	**155**	9
Chiradzulu Agric	62.4	76.7	**81**	485.7	504.8	**96**	8
Liwonde Township	126.3	81.0	**156**	427.4	377.9	**113**	6
Lujeri Tea Estate	351.8	127.7	**275**	1382.6	941.3	**147**	10
Mpilipili	58.6		**N/A**	525.6		**N/A**	5
Makoka Met	205.8	73.7	**279**	743.0	469.1	**158**	10
Mangochi Met.	69.1	59.6	**116**	426.6	371.1	**115**	7
Masambanjati Agric	96.0	82.2	**117**	636.0	596.1	**107**	8
Mimosa Met.	134.5	70.7	**190**	441.9	636.5	**69**	10
Monkey Bay Met.	29.9	74.0	**40**	424.3	431.2	**98**	8
Mulanje Boma	258.0	81.1	**318**	1095.9	713.6	**154**	10
Namiasi Agric	92.6	65.4	**142**	393.5	346.8	**113**	8
Naminjiwa Agric	110.9	70.9	**156**	577.2	474.4	**122**	8
Namwera Agric	157.7	84.5	**187**	358.7	492.9	**73**	9
Nchalo Sucoma	40.7	35.8	**114**	516.1	312.0	**165**	4
Neno Agric	116.6	87.0	**134**	955.3	503.6	**190**	8
Ngabu Met.	122.6	41.4	**296**	711.6	368.0	**193**	7
Nsanje Boma	24.7	60.5	**41**	605.2	411.3	**147**	6
Ntaja Met.	73.8	70.2	**105**	627.1	416.7	**150**	9
Satemwa	113.5	55.0	**206**	795.9	577.4	**138**	10
Thyolo Met	143.7	68.3	**210**	775.5	521.6	**149**	10
Zomba RTC	171.1	90.9	**188**	876.2	572.0	**153**	8
CENTRAL REGION							
Chitedze Met.	80.9	62.8	**129**	497.1	432.6	**115**	5
Dedza Met	176.7	69.3	**255**	590.4	430.5	**137**	8
K.I.A Met	52.9	83.2	**64**	402.6	387.9	**104**	7
Kasungu Met	71.1	72.2	**98**	303.4	406.9	**75**	8
Malomo Agric	39.3	125.7	**31**	341.0	379.7	**90**	4
Mchinji Boma	50.3	77.0	**65**	557.8	487.0	**115**	5
Mponela Agric	60.0	72.7	**83**	552.8	351.8	**157**	7
Mwimba Research	14.2	84.3	**17**	417.8	416.5	**100**	3
Nkhotakota Met	165.7	81.5	**203**	674.6	508.6	**133**	8
Salima Met	254.9	124.9	**204**	776.2	521.8	**149**	10
Dedza RTC	125.8	87.2	**144**	447.5	434.1	**103**	7
NORTHERN REGION							
Bolero Met	27.2	52.0	**52**	320.7	363.3	**88**	8
Bwengu Agric.	113.8	59.0	**193**	393.8	381.0	**103**	4
Chitipa Met	51.7	62.5	**83**	400.4	442.7	**90**	7
Karonga Met.	31.9	60.0	**53**	245.5	368.7	**67**	7
Mzimba Met	39.0	70.1	**56**	350.7	421.8	**83**	9
Mzuzu Met.	76.4	67.9	**113**	697.9	497.6	**140**	8
NkhataBay Met.	164.1	109.3	**150**	423.3	708.7	**60**	10
Vinthukutu Agric	83.5	62.1	**134**	552.5	415.2	**133**	5

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 2 OF JANUARY 2008

STATION	MAX TEMP (℃)	MIN TEMP (℃)	ABS MAX (℃)	ABS MIN (℃)	WIND SPEED m/s	RH %
BVUMBWE	25.4	17.6	26.5	16.6	1.1	86
BOLERO	28.2	17.6	29.5	16.7	1.0	78
CHICHIRI	26.1	18.6	27.5	17.9	0.5	82
CHILEKA	26.7	20.7	29.0	20.0	1.9	86
NTAJA	27.7	21.2	29.0	20.0	0.7	86
CHITEDZE	26.4	18.8	28.9	18.3	0.5	83
DEDZA	22.4	16.1	23.5	15.1	1.0	88
KASUNGU	26.7	18.6	28.8	17.8	1.4	82
KARONGA	29.5	22.1	30.5	21.3	1.2	78
K.I.A.	25.3	17.8	27.5	17.0	1.3	83
MAKOKA	27.0	18.9	27.7	18.4	1.0	86
MANGOCHI	29.9	22.2	32.1	21.2	0.8	85
MONKEY BAY	28.3	22.0	30.0	20.7	1.3	84
MZIMBA	27.2	16.7	29.3	15.9	0.5	77
MZUZU	25.8	17.2	26.9	16.5	1.6	77
NGABU	32.8	23.5	33.9	21.2	1.2	78
NKHATA BAY	30.4	20.5	31.4	19.3	0.8	80
NKHOTAKOTA	28.1	18.2	29.3	19.0	1.4	86

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