10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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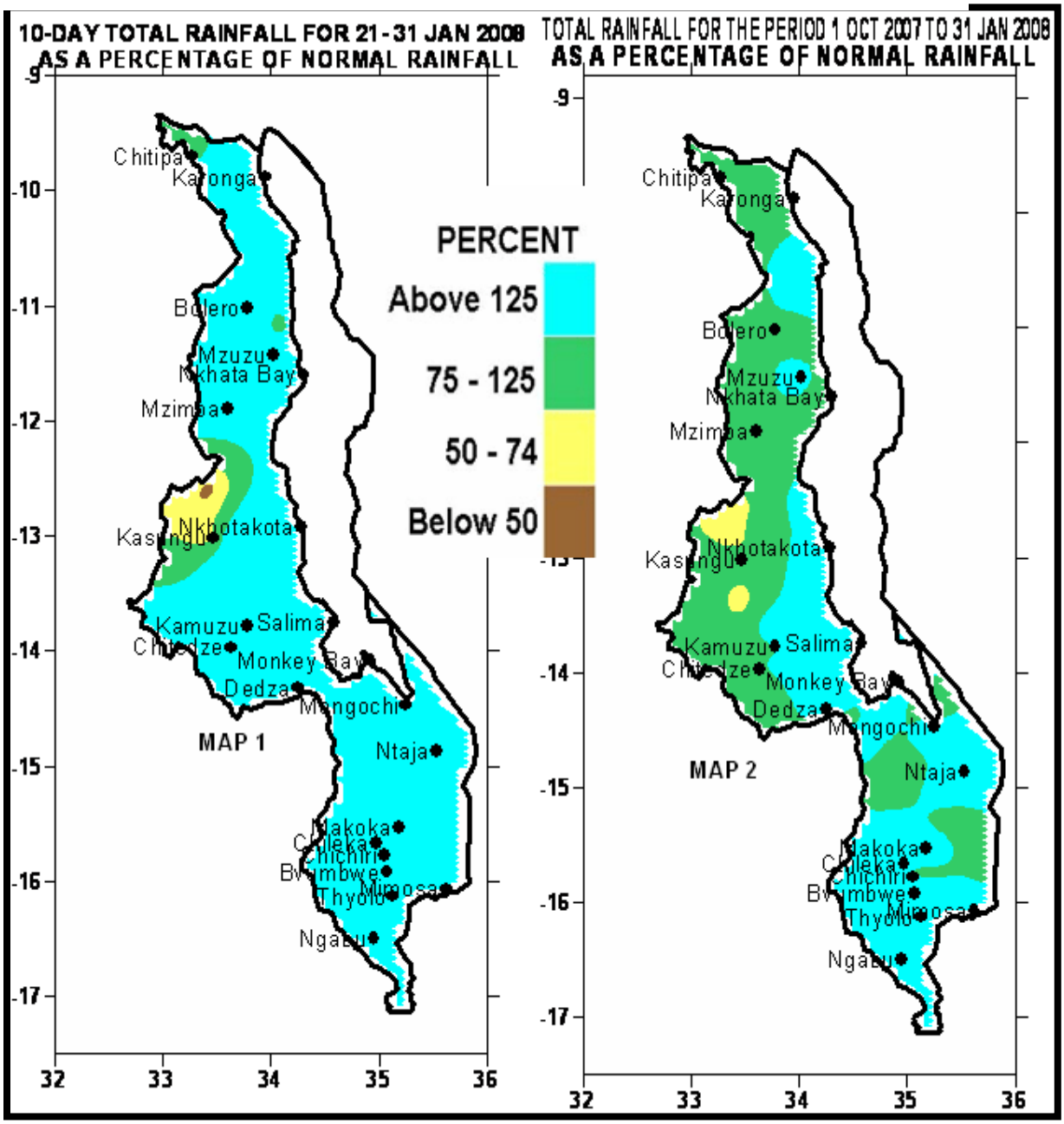
HIGHLIGHTS

- **Mainly above average rains result in floods in most districts of Malawi…**
- **Maize crop mostly at vegetative and flowering stages …**
- **Widespread rains to be confined to the northern half of Malawi…**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the third dekad of January 2008, both main rain bearing systems, namely moist Congo Air and Inter Tropical Convergence Zone, were very active over Malawi. Hence widespread incessant heavy rains were experienced over most parts of Malawi. Most areas registered above normal dekadal rainfall amounts (light blue colours on Map 1) with very good spatial and temporal distribution. Overall, most areas in Malawi reported over eight rainfall days. However, areas that had accumulated more than 300mm during the period were confined mostly to southern Malawi. These areas included Mulanje Boma (430mm), Monkey Bay (376mm), Lujeri Tea Estate (350mm) and Mimosa (343mm). See Table 1.

Cumulative rainfall performance from October 2007 up to 31 January 2008 indicated that generally Malawi had received normal to above-normal rainfall (green to light blue colours on Map 2) with pockets of below average rainfall confined to some parts of Kasungu in central Malawi.

1.2 MEAN AIR TEMPERATURE

During the last ten days of January 2008 due to high cloud cover mean daily maximum temperatures over most areas in Malawi were moderated to the warm category. Hot temperatures were only confined to Lakeshore and Shire Valley. The highest maximum was reported at Ngabu (31.7°C) while the lowest was reported at Dedza. At the same time, mean daily minimum temperatures ranged from 15.9°C at Dedza to 23.7°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 were light. The highest wind speed was reported at Ntaja (2.1 m/s or 7.6 Km/hr) while the lowest wind speed was recorded at Chichiri . See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Due to excessive wet conditions, humid conditions were experienced over most parts of Malawi. The highest was registered at Makoka in Zomba (92%) while the lowest was registered at Nkhotakota (70%). See Table 2. Persistence of such humid conditions in most cases promote outbreaks of fungal diseases.

2. AGROMETEOROLOGICAL ASSESSMENT

The country experienced above average rains during the last dekad of January 2008. These rains caused leaching of soil nutrients and soil water–logging conditions. Floodwater surged through all three regions of the country. Reports indicated due to floods four people lost their lives, crops were washed away, road and telecommunication infrastructure were damaged and some villages were reported submerged. Out of the 14 districts that were affected by floods, Chikwawa and Nsanje in the south are the worst hit.

The general crop stand in the fields was being threatened by incessant heavy rains and lack of sunshine hours, a situation that was likely to affect the quality of some crops. Already in some areas crops were reported to have started yellowing due to incessant heavy rains.

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 Malawi is likely to experience normal to above normal total rainfall amounts with likelihood of floods.

4. OUTLOOK FOR 1 – 10 February 2008

Meanwhile, models for medium range forecasts indicate that both the Inter Tropical Convergence Zone and moist Congo Air are likely to remain active particularly over central and northern Malawi. Therefore widespread locally heavy rains are expected to be mostly confined to central and northern Malawi with a substantial reduction in rainfall expected over the western sector of southern Malawi during the first ten days of February 2008.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3 OF JANUARY 2008: PERIOD 21 - 31

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS %	TOTAL TO DATE	NORMAL TO DATE	TOTAL TODATE AS %	RAINY DAYS
SOUTHERN REGION	**mm**	**mm**	**NORMAL**	**mm**	**mm**	**NORMAL**	**[3] 0.3 mm**
Balaka Township	242.4	97.2	**249**	549.6	499.0	**110**	8
Bvumbwe Met.	139.0	90.5	**154**	850.2	589.8	**144**	10
Chichiri Met.	139.1	93.0	**150**	777.1	597.2	**130**	10
Chikweo Agric.	188.1	103.0	**183**	852.7	567.6	**150**	9
Chileka Airport	192.4	79.3	**243**	655.8	499.7	**131**	9
Chiradzulu Agric	140.8	94.1	**150**	626.5	598.9	**105**	9
Chizunga Factory	197.0	92.2	**214**	1186.0	736.9	**161**	7
Kasinthula Res. Stn.	96.8	62.5	**155**	819.6	387.3	**212**	5
Liwonde Township	189.6	80.5	**236**	617.0	458.4	**135**	10
Lujeri Tea Estate	350.0	134.8	**260**	1732.6	1076.1	**161**	10
Makoka Met	183.4	79.0	**232**	946.9	548.1	**173**	11
Mangochi Met.	216.4	74.0	**292**	643.0	445.1	**144**	9
Mimosa Met.	343.4	100.0	**343**	785.3	736.5	**107**	10
Monkey Bay Met.	376.0	114.2	**329**	800.3	545.4	**147**	10
Mulanje Boma	429.5	115.0	**373**	1525.4	828.6	**184**	11
Nchalo Sucoma	92.3	54.2	**170**	608.4	366.2	**166**	6
Ngabu Met.	128.4	52.2	**246**	840.0	420.2	**200**	10
Nsanje Boma	166.1	75.1	**221**	771.3	486.4	**159**	7
Ntaja Met.	221.1	84.5	**262**	848.2	501.2	**169**	11
Satemwa Tea Est. No.1	187.8	95.0	**198**	983.7	672.4	**146**	9
Thyolo Met	179.5	88.5	**203**	955.0	610.1	**157**	10
Zomba RTC	189.1	107.3	**176**	1065.3	679.3	**157**	11
CENTRAL REGION							
Chitedze Met.	165.0	81.9	**201**	662.1	514.5	**129**	9
Dedza Met	192.2	95.6	**201**	786.1	526.1	**149**	11
Dowa Agric	168.6	84.2	**200**	714.3	481.6	**148**	10
Kaluluma DTC	33.3	75.7	**44**	318.4	459.7	**69**	7
K.I.A Met	176.4	90.9	**194**	579.0	478.8	**121**	11
Kasungu Met	47.1	67.0	**70**	350.5	473.9	**74**	9
Lisasadzi	118.4	80.9	**146**	373.3	469.7	**79**	8
Malomo Agric	188.9	55.1	**343**	529.9	434.8	**122**	9
Mchinji Boma	140.6	88.4	**159**	698.4	575.4	**121**	9
Mlangeni Njolomole	242.6	85.2	**285**	892.9	534.9	**167**	6
Mponela Agric	166.5	82.7	**201**	719.3	434.5	**166**	10
Mwimba Research	67.8	76.1	**89**	485.6	492.6	**99**	9
Nathenje Agric	239.5	85.1	**281**	744.3	473.6	**157**	9
Nkhotakota Met	188.9	107.1	**176**	863.5	615.7	**140**	10
Ntchisi Boma	190.4	74.6	**255**	650.8	472.8	**138**	7
Salima Met	231.3	114.4	**202**	1007.5	636.2	**158**	10
NORTHERN REGION							
Baka Res. Stn.	147.5	63.6	**232**	409.6	446.5	**92**	5
Bolero Met	108.8	18.6	**585**	854.6	711.0	**120**	10
Bwengu Agric.	110.7	87.6	**126**	504.5	468.6	**108**	5
Chitipa Met	74.4	72.6	**102**	474.8	515.3	**92**	9
Karonga Met.	180.2	54.1	**333**	425.7	422.8	**101**	7
Mzimba Met	110.2	63.3	**174**	460.9	485.1	**95**	9
Mzuzu Met.	105.7	69.9	**151**	803.6	567.5	**142**	9
NkhataBay Met.	108.8	53.4	**204**	532.1	762.1	**70**	10
Vinthukutu Agric	259.8	65.1	**399**	812.3	480.3	**169**	6

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 3 OF JANUARY 2008

STATION	MAX TEMP	MIN TEMP	ABS MAX	ABS MIN	WIND SPEED	RH
	(°C)	(°C)	(°C)	(°C)	m/s	%
BVUMBWE	25.2	17.7	26.7	16.5	1.3	86
CHICHIRI	27.1	20.8	27.4	18.0	0.5	84
CHILEKA	27.0	20.9	29.5	19.5	2.1	84
CHITEDZE	25.1	18.5	27.1	17.9	0.6	85
CHITIPA	25.0	17.2	27.4	16.1	1.3	80
DEDZA	21.9	15.9	25.4	14.9	0.8	91
K.I.A.	24.7	17.9	27.0	17.0	1.4	91
KARONGA	28.4	21.4	30.2	19.0	1.1	80
KASUNGU	25.8	19.0	28.8	18.1	1.5	84
MAKOKA	25.7	19.0	27.2	17.6	1.0	92
MANGOCHI	29.2	22.1	30.6	21.4	1.0	80
MIMOSA	28.9	20.4	33.0	19.6	1.0	77
MONKEY BAY	27.5	22.3	28.4	21.2	1.3	85
MZIMBA	24.8	17.2	27.5	16.0	1.1	84
MZUZU	24.4	17.2	28.4	16.4	1.8	83
NGABU	31.7	23.7	34.3	22.3	1.0	81
NKHATA BAY	26.4	17.5	30.7	16.7	1.0	84
NKHOTAKOTA	27.4	21.3	28.0	20.5	1.2	70
NTAJA	27.0	20.7	28.6	19.5	1.0	88
SALIMA	27.6	21.4	29.7	20.3	1.4	80

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