10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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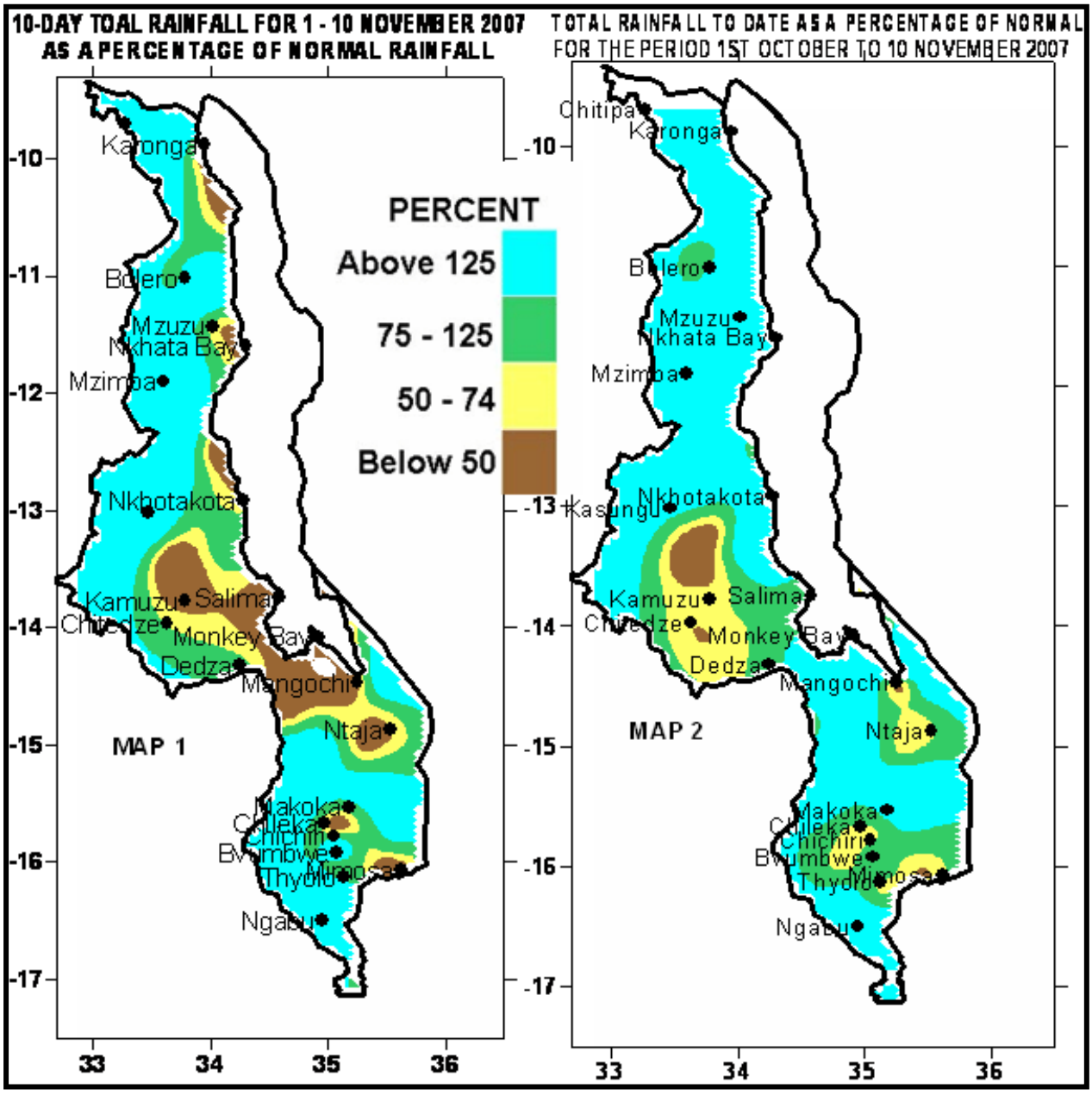
HIGHLIGHTS

- **Good rainfall distribution and amount experienced in some parts of Malawi…**
- **Farmers in the south and parts of the centre prompted to start planting crops…**
- **Improvement in spatial rainfall distribution expected during 11 – 20 November…**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During first 10-days of November 2007 a convergence ahead of pressure rises was fairly active over the south and some parts of central Malawi. As a result most areas in the south and some parts of centre and north experienced good rainfall amounts. For instance during the period rainfall above 50mm was reported at Neno 92mm, Ngabu 76mm, Nchalo 73mm, Mchinji 68mm, Bvumbwe 55mm and Namwera 52mm. The rainfall distribution was better in the south where upto six rainfall days were registered while in the centre and north a maximum of three rainfall days were experienced. More details are on Table 1.

Map 2 shows cumulative rainfall amounts from October upto 10 November 2007 expressed as percentage of normal rainfall. It has been demonstrated from the map that most areas (green and light blue colours) in Malawi have received at least 50% of the expected rainfall.. See Map 2 and Table 1.

1.2 MEAN AIR TEMPERATURE

Hot weather continued in most parts of Malawi while very hot temperatures persisted in Shire Valley. Mean daily maximum temperatures ranged from 28.9℃ at Bvumbwe to 37.7℃ at Ngabu in Chikwawa. On the other hand mean daily minimum temperatures were in mild to warm category. Mzuzu Airport reported the lowest mean daily minimum temperature of 15.3℃ while Monkey Bay with 25.0℃ was the warmest place.

1.3 MEAN DAILY WIND SPEEDS

Mean wind speeds at a height of two meters above the ground, ranged from 0.7 m/s (2.5 Km/hr) at Chichiri to 3.5 m/s (12.6 Km/hr) at Chitipa.- see Table 2 .

1.4 MEAN RELATIVE HUMIDITY

Mean daily relative humidity valuesin the dekad under review ranged from 44% at Ngabu and Karonga to 67% at Bvumbwe in Thyolo district.

2. AGROMETEOROLOGICAL ASSESSMENT

Good rainfall amounts that were received in some parts of the country particularly in the south and centre improved soil moisture and prompted farmers to start planting crops at a small scale. In some areas the rains that fell in addition to encouraging farmers to speed up land preparation in readiness for the onset of main rains also increased pasture availability for communal grazing.

So far very most areas in Malawi have received the first rains *(Chizimalupsya*) that normally precede the onset of the main rains. Climatologically for the south and some parts of central Malawi, effective rains that cover most areas are normally expected within the last twenty days of November. The onset of the main rains for the north is normally expected from December. However, recently we have also experienced some seasons with uniform onset of main rains over the country.

3. PROSPECTS OF 2007/08 SEASON

Malawi has 35% chance of rainfall total being above normal, 40% chance of being normal and 25% chance of being below normal. During the period January to March 2008, the northern half of Malawi has 35% chance of above normal rainfall, 40% of normal rainfall and 25% chance of below normal rainfall while the Southern half has 40% chance of above normal rainfall, 35% of normal rainfall and 25% chance of below normal rainfall.

In summary, the models suggest that during 2007/2008 rainfall season, a greater part of Malawi will experience normal to above normal total rainfall amounts with an increased chance of floods.

Reports indicate that high intensisty rainfall has already damaged some infrastructure in Phalombe, Nsanje and Nankumba in Mangochi..

4. OUTLOOK FOR 11 – 20 NOVEMBER 2007

A convergence ahead of pressure rises is expected to cause increased rainfall over southern and central Malawi during the period 11 – 20 November 2007.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 1 OF NOVEMBER 2007: PERIOD 01 - 10

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	33.5	17.1	**196**	92.5	41.1	**225**	2
Bvumbwe Met.	54.8	23.4	**234**	59.5	54.8	**109**	6
Chancellor College	37.3	20.1	**186**	127.4	47.9	**266**	3
Chichiri Met.	17.5	38.5	**45**	37.5	72.1	**52**	5
Chikwawa Boma	15.5	13.5	**115**	17.1	29.9	**57**	2
Chileka Airport	11.3	26.3	**43**	26.5	55.3	**48**	2
Chiradzulu Agric	8.5	24.6	**35**	50.5	44.6	**113**	1
Chizunga Factory	35.0	35.1	**100**	65.0	77.5	**84**	4
Liwonde Township	5.0	13.6	**37**	13.5	27.0	**50**	2
Lujeri Tea Estate	14.2	57.9	**25**	127.2	157.9	**81**	3
Mangochi Met.	7.0	18.3	**38**	7.0	33.5	**21**	5
Mimosa Met.	21.0	35.5	**59**	54.5	96.2	**57**	3
Monkey Bay Met.	1.6	13.6	**12**	3.2	22.5	**14**	1
Naminjiwa Agric	29.9	16.4	**182**	45.4	48.3	**94**	3
Namwera Agric	52.1	20.3	**257**	95.1	34.5	**276**	3
Nchalo Sucoma	73.0	22.0	**332**	80.0	49.5	**162**	3
Neno Agric	92.2	23.6	**391**	128.0	59.4	**215**	3
Ngabu Met.	75.5	19.1	**395**	102.8	45.5	**226**	3
Nsanje Boma	24.7	27.1	**91**	213.8	55.6	**385**	3
Ntaja Met.	3.6	11.5	**31**	15.4	26.9	**57**	1
Satemwa Tea Est. No.1	31.3	38.8	**81**	77.0	87.8	**88**	4
CENTRAL REGION							
Chileka Namitete	18.5	16.4	**113**	26.5	31.2	**85**	2
Chitedze Met.	10.3	13.7	**75**	12.0	24.5	**49**	3
Dowa Agric	6.2	13.4	**46**	10.2	16.3	**63**	1
Dwangwa Sugar Corp.	0.0	17.6	**0**	27.9	28.3	**99**	0
Kaluluma DTC	7.3	2.3	**317**	39.9	7.0	**570**	2
K.I.A Met	3.9	11.0	**35**	17.2	22.1	**78**	2
Malomo Agric	2.0	2.7	**74**	2.0	6.3	**32**	1
Mchinji Boma	67.5	21.3	**317**	98.9	40.6	**244**	3
Mlangeni Njolomole	6.0	20.8	**29**	42.0	41.5	**101**	1
Mwimba Research	29.8	10.7	**279**	29.8	22.8	**131**	2
Nkhotakota Met	0.0	13.3	**0**	0.0	19.9	**0**	0
Ntcheu – Nkhande	3.3	16.0	**21**	29.8	38.6	**77**	2
Ntchisi Boma	11.6	8.6	**135**	36.6	12.0	**305**	2
Salima Met	0.0	12.2	**0**	10.5	18.3	**57**	0
Dedza RTC	6.7	7.3	**92**	39.4	35.8	**110**	2
NORTHERN REGION							
Baka Res. Stn.	0.9	3.2	**28**	13.9	4.6	**302**	1
Bolero Met	24.2	44.0	**55**	29.5	50.7	**58**	2
Bwengu Agric.	35.0	10.8	**324**	46.3	16.9	**274**	2
Chitipa Met	42.6	6.5	**655**	55.6	12.1	**460**	3
Karonga Met.	1.0	3.9	**26**	15.0	4.8	**313**	1
Mzimba Met	46.6	12.8	**364**	60.5	17.5	**346**	4
Mzuzu Met.	8.6	20.3	**42**	99.9	54.4	**184**	1
Vinthukutu Agric	0.0	8.9	**0**	21.4	18.5	**116**	0

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 1 OF NOVEMBER 2007

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	28.9	17.9	32.0	15.0	1.6	67
BOLERO	33.0	19.4	34.9	17.0	1.0	49
CHICHIRI	30.4	19.3	34.0	16.0	0.7	61
CHILEKA	32.7	21.3	35.6	18.3	3.2	57
NTAJA	33.2	22.3	35.0	20.0	2.1	55
CHITEDZE	31.5	18.1	32.5	16.2	1.0	55
CHITIPA	30.9	18.9	32.4	16.9	3.5	56
KARONGA	33.5	23.8	34.5	22.0	2.6	46
K.I.A.	30.2	18.0	31.9	16.6	1.9	56
MANGOCHI	33.8	23.0	36.6	21.6	1.8	59
MIMOSA	33.7	18.8	36.9	17.1	1.0	61
MONKEY BAY	33.5	25.0	36.0	22.5	2.4	60
MZIMBA	30.1	17.5	32.5	16.0	1.0	54
MZUZU	29.1	15.3	30.3	13.2	1.6	56
NGABU	37.7	24.0	41.3	22.3	2.5	44
SALIMA	33.8	23.7	35.6	22.7	2.3	53

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