10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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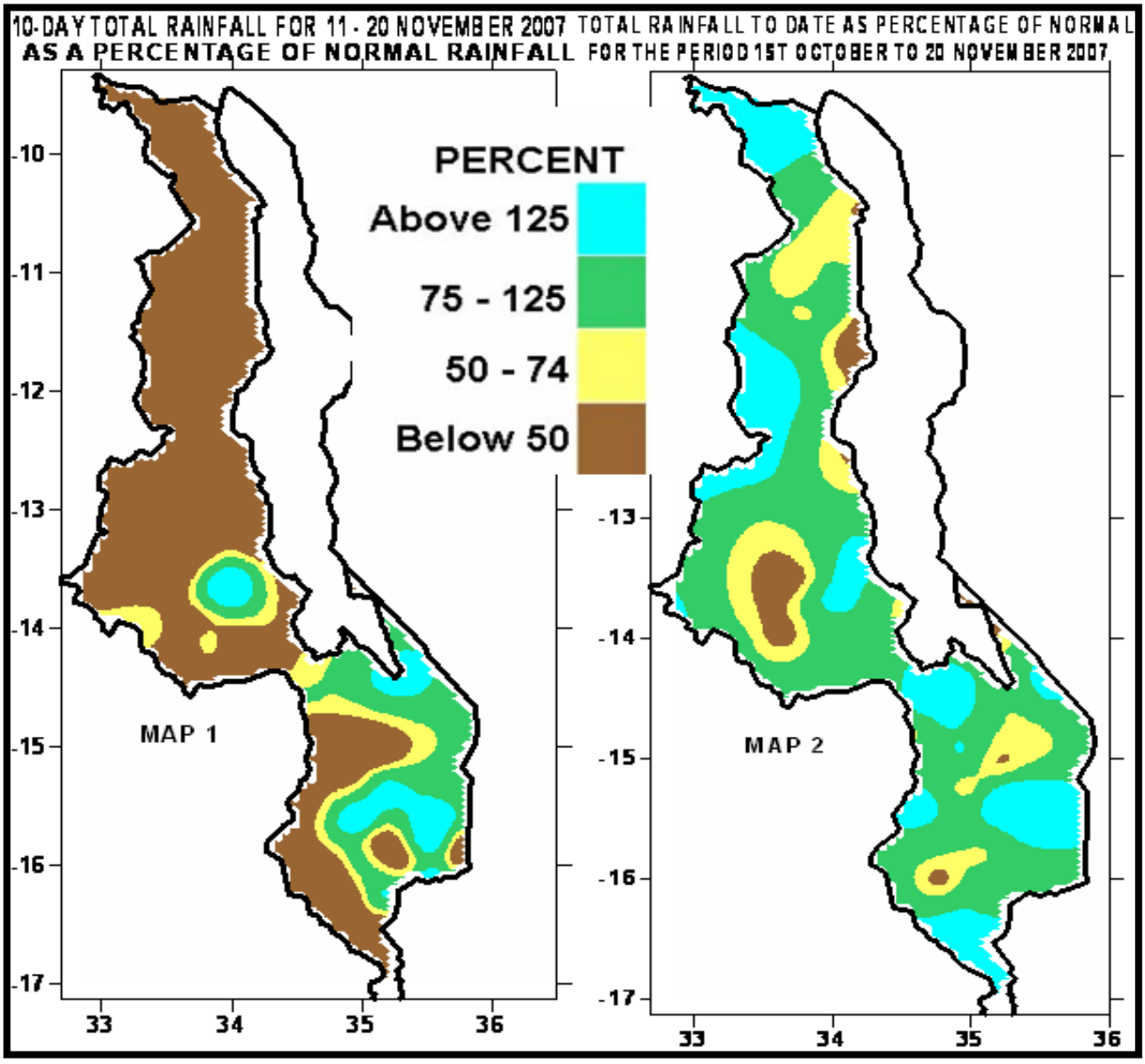
HIGHLIGHTS

- **Sporadic rainfall experienced over Malawi…**
- **Land preparation was the major agricultural activity …**
- **Rainfall is expected to improve during the very last days of November…**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the second ten-days of November 2006, fairly moist and unstable covered some parts of Malawi. This resulted in few sporadic rainfall particularly over the south and some parts of central malawi while dry condition persisted over the north. Notable 10-day total rainfall amounts of more than 50mm were concentrated in Mulanje and Thyolo districts in the south where Mimosa and Mulanje Boma reported 88mm, Masambanjati 66mm, Lujeri 56mm, and Chizunga factory 51mm.,

Total rainfall amounts for the period 11 – 20 November 2007 expressed as percentage of normal demonstrated most areas in Malawi received rainfall amounts of below 50% of the expected rainfall while cumulative rainfall amounts received since October 2007 expressed as a percentage of normal rainfall showed that appreciable rainfall (light blue colour on the map) had been received in Malawi except for few pockets which have recorded less than 50% of the expected rainfall amounts See Table 1 and Map 2.

1.2 MEAN AIR TEMPERATURE

Despite the sporadic rains, generally hot weather persisted over Malawi during the period. Mean daily maximum temperatures ranged from 27℃ at Mzuzu to 36℃ at Ngabu in Chikwawa. On the other hand mean daily minimum temperatures ranged from 16℃ at Mzuzu to 25℃ at Karonga.

1.3 MEAN DAILY WIND SPEEDS

Mean wind speeds at a height of two meters above the ground were still light to moderate The highest wind speed was reported at Chitipa (4.8m/s or 17.3Km/hr) while the lowest wind speed was reported at Chichiri(0.9m/s or 3.2 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

The atmosphere was fairly moist. The highest was reported at Bvumbwe (78%) while the lowest was registered at Ngabu (45%).

2. AGROMETEOROLOGICAL ASSESSMENT

The second ten-days of November became drier than the first ten-days. Generally light and sporadic rains were received over Malawi. The sporadic rains apart from supporting land preparations activities also improved water resources and soil moisture reserves. At the same time, in the south and some parts of the centre where normal dates for effective onset of planting rains fall within the last twenty days of November, farmers who had already finalized land preparations and had seed were prompted to start planting crops.

The onset of the main rains for the north is climatologically expected in December. Meanwhile the rains are expected to remain sporadic until when the main rain bearing systems get established over Malawi..

3. PROSPECTS OF 2007/08 SEASON

Climate models updates for the period November to January 2008 indicate that Malawi has 40% chance of rainfall total being above normal, 35% chance of being normal and 25% chance of being below normal.

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 a combination of high intensisty rainfall and strong winds have already damaged some infrastructure in Phalombe, Nsanje, Chapananga in Chikwawa and Nankumba in Mangochi..

4. OUTLOOK FOR 21 – 30 NOVEMBER 2007

Fairly moist and unstable air is expected to during the last days of November 2007 as pressure builds up over the southeast coast of the Republic of South Africa. Therefore an improvement in spatial and temporal distribution of rainfall is expected mainly over the south and some parts of central region during the last days of the forecast period.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 2 OF NOVEMBER 2007: PERIOD 11 - 20

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	**DEKADAL TOTAL AS % NORMAL**	TOTAL TO DATE	NORMAL TO DATE	**TOTAL TO DATE AS % NORMAL**	RAINY DAYS
SOUTHERN REGION	mm	mm		mm	mm		[3] 0.3 mm
Bvumbwe Met.	15.8	46	**34**	91.1	128.6	**71**	5
Chancellor College	34.6	50.5	**69**	196.6	127.6	**154**	2
Chichiri Met.	12.8	40.9	**31**	63.1	142.1	**44**	2
Chileka Airport	47.2	45.4	**104**	120.9	124.1	**97**	3
Chingale Agric	49	36.9	**133**	98	92.2	**106**	3
Chiradzulu Agric	13.4	44.2	**30**	77.3	116	**67**	2
Chizunga Factory	51	42	**121**	167	157.6	**106**	5
Lujeri Tea Estate	55.6	67.8	**82**	238.4	316.2	**75**	6
Makoka Met	25	40.4	**62**	118.6	108.2	**110**	2
Mangochi Met.	20.1	32.2	**62**	47.2	78	**61**	3
Masambanjati Agric	65.9	45.4	**145**	172.8	150.4	**115**	5
Mimosa Met.	88.1	48.6	**181**	230.7	196.8	**117**	2
Mulanje Boma	88.5	51.7	**171**	232.5	247.6	**94**	3
Namiasi Agric	0	16.9	**0**	25.7	47.7	**54**	0
Naminjiwa Agric	40.5	33.7	**120**	85.9	100.4	**86**	2
Nchalo Sucoma	0	14.3	**0**	80	77	**104**	0
Neno Agric	4.2	40.9	**10**	136.4	123.5	**110**	1
Ngabu Met.	2.2	29.7	**7**	107.2	88.7	**121**	1
Nsanje Boma	0	36.1	**0**	213.8	123.6	**173**	0
Ntaja Met.	10.3	40.3	**26**	36	81.5	**44**	1
Phalula Agric	11	37.9	**29**	22	115.1	**19**	1
Satemwa Tea Est.	24.2	49.2	**49**	125.4	168.1	**75**	4
CENTRAL REGION							
Bunda College	42	26.6	**158**	101.6	100.2	**101**	3
Chileka Namitete	24	39.6	**61**	74.5	99.9	**75**	2
Chitedze Met.	2.1	36.7	**6**	16.2	91.4	**18**	2
Dowa Agric	36.6	28.2	**130**	83.4	58.7	**142**	3
Dwangwa Sugar	1.5	26.3	**6**	30.9	99.6	**31**	1
Kaluluma DTC	0	12.3	**0**	39.9	40.3	**99**	0
K.I.A Met	21.2	19.9	**107**	59.6	68.9	**87**	1
Malomo Agric	0	21.2	**0**	2	43.7	**5**	0
Mchinji Boma	0	37.7	**0**	98.9	109.4	**90**	0
Mlangeni Njolomole	20	27.4	**73**	82	92.1	**89**	1
Mponela Agric	3.3	24.6	**13**	6.6	52.8	**13**	2
Mwimba Research	0	25.4	**0**	29.8	67.9	**44**	0
Ntcheu - Nkhande	5.6	36.4	**15**	41	90.6	**45**	1
Ntchisi Boma	0	26.1	**0**	36.6	49.9	**73**	0
Salima Met	0	21.3	**0**	10.5	48.4	**22**	0
Dedza RTC	8.3	22.1	**38**	56	82.7	**68**	1
NORTHERN REGION							
Bolero Met	0	22	**0**	29.5	84.9	**35**	0
Bwengu Agric.	0	21.2	**0**	46.3	61.6	**75**	0
Chitipa Met	0	50.8	**0**	55.6	81.9	**68**	0
Karonga Met.	0.3	33.4	**1**	15.6	46.8	**33**	1
Mzimba Met	0.1	24.8	**0**	60.7	60.4	**100**	0
Mzuzu Met.	0	51.8	**0**	99.9	137.9	**72**	0
Vinthukutu Agric	0	30.9	**0**	21.4	79.9	**27**	0

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 2 OF NOVEMBER 2007

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	31.9	20.6	33.1	17.9	1.0	46
BVUMBWE	29.7	17.8	30.5	16.0	2.3	78
CHICHIRI	28.7	18.7	32.0	17.5	0.9	67
CHILEKA	30.5	21.1	34.3	19.3	3.3	59
CHITEDZE	30.9	18.2	33.1	16.5	1.3	56
CHITIPA	30.6	19.1	31.6	17.4	4.8	51
K.I.A.	29.1	17.9	31.4	16.7	2.3	61
KARONGA	34.2	24.6	37.0	23.3	3.0	46
MAKOKA	28.6	19.1	31.1	17.4	1.7	69
MANGOCHI	33.1	22.2	35.5	19.5	1.7	61
MIMOSA	30.9	19.2	34.7	17.4	1.3	71
MZIMBA	28.7	18.0	30.4	14.1	1.4	55
MZUZU	27.4	16.2	28.8	13.7	2.4	62
NGABU	35.6	22.7	38.4	20.2	4.1	45
NTAJA	31.7	21.7	34.7	22.5	2.3	59
SALIMA	33.4	24.4	34.6	22.9	3.2	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