Malawi 10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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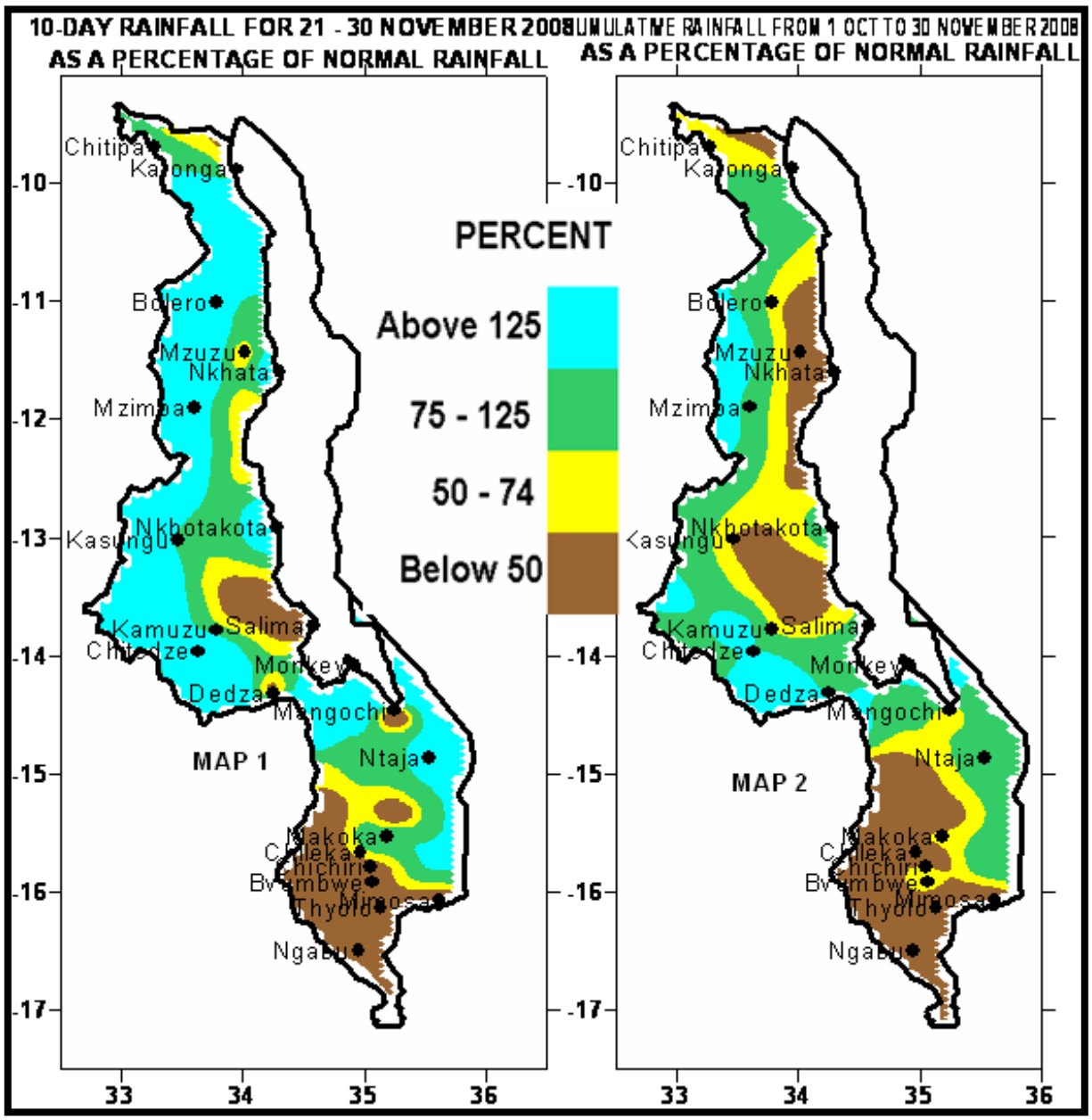
HIGHLIGHTS

- **Drier extreme south, centre and north received good rainfall amounts…**
- **Land preparation and planting were major agricultural activities …**
- **A further improvement in rainfall distribution expected…**



All inquiries should be addressed to: The Director of Meteorological Services, P.O. Box 1808, Blantyre, MALAWI
Tel: (265) 1 822 014/106 Fax: (265) 1 822 205 E-mail: metdept@metmalawi.com Homepage: www.metmalawi.com

1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the period 21 to 30 November 2008 Malawi continued to experience a general improvement in spatial rainfall performance. However, the distribution and amounts were still poor. Reports of moderate to heavy rains were confined to a few areas mainly in the centre and north. Areas that reported total rainfall amounts of greater than 85mm in the north included Euthini Agric (116mm) and Mbawa Research Station (104mm) while in the centre included Mkanda in Mchinji (111mm), Chitedze Research Station in Lilongwe (96mm) and Mtakataka in Dedza (89mm). Although light to moderate rainfall spread to some parts of the south, drier than normal conditions have persisted in Chikwawa and Nsanje districts in lower Shire Valley where some areas have so far not registered significant rainfall to start the growing season. Such areas include Chikwawa Boma, Nchalo, Ngabu and Nsanje Boma. See more details in **Map1 and Table 1**.

Cumulative rainfall performance indicates slow start of the wet season **(brown colour in Map 2)** in lower Shire Valley, Mwanza, Neno, Balaka districts in the south, Salima and Nkhotakota in the centre and Nkhaa Bay in the north.

1.2 MEAN AIR TEMPERATURE

Generally hot temperatures persisted over Malawi during the period under review. Mean maximum air temperatures ranged from 25°C at Dedza to 38°C at Ngabu in the lower Shire Valley. Average minimum temperatures ranged from 17°C at Dedza to 26°C at Ngabu. See more details in Table 2.

1.4 MEAN WIND SPEEDS

Mean wind speeds at a height of two metres above ground level ranged from 0.7 m/s (2.5 Km/h) at Mzimba to 3.8 m/s (13.7 Km/h) at Ngabu (see Table 2).

1.5 MEAN RELATIVE HUMIDITY

The atmosphere was relatively moist during the period 21 – 30 November 2008. Daily average relative humidity values ranged from 52% at Mimosa to 74% at Mkondezi in Nkhata Bay. More details are in the Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

In the last ten days of November 2008, light to moderate rainfall covered most parts of the country particularly over the centre and north. These rains apart from encouraging farmers to speedup land preparation and start planting crops also supported germination of crops planted in the previous ten day period. Most of southern Malawi particularly Lower Shire Valley, Mwanza, Neno continued to experience drier than normal conditions So far when compared to last season as well as a normal season, there has a slow start of the growing season in most parts of the south and lakeshore areas **(brown colour on Map 2**). Although a delay in the onset of the main rains negatively impacts the length of growing season, sometimes this could be a blessing in disguise in that once the season starts the delay could lower chances of experiencing a prolonged mid-season dry spells. Generally in Malawi planting rains start in November in the south and December in the northern half. However there have been seasons when rains cover the whole country signalling a uniform start of rains.

Land preparation, planting of crops and acquisition of farm inputs were still major agricultural activities for farmers.

3. PROSPECTS OF 2008/09 RAINFALL SEASON

Climate models suggest that by end of April 2009 the greater part of Malawi should expect normal rainfall amounts. However the distribution of rainfall in both space and time is not expected to be uniform. Externally, the influence of climate change cannot be ignored and one of the indicators is occurrence of extreme climatic events such as floods and drought. Low lying areas such as the Shire valley and lakeshore areas are more vulnerable to floods and droughts.

4. OUTLOOK FOR 1 – 10 DECEMBER 2008

The main rain bearing systems namely Congo Air and Inter-Tropical Convergence Zone (ITCZ) are projected to get established over Malawi within the first 10-days of December 2008. Therefore, the country is expected to experience a further improvement in distribution of rainfall during the period..

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 21 – 30 NOVEMBER 2008 AT SELECTED STATIONS

STATION NAME	DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL mm	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE mm	NORMAL TO DATE mm	TOTAL TODATE AS % NORMAL	RAINY DAYS
SOUTH							
Balaka Township	33.5	35.0	**96**	40.0	104.5	**38**	3
Bvumbwe Met.	24.6	46.0	**53**	125.0	128.6	**97**	2
Chancellor College	13.3	50.5	**26**	35.2	127.6	**28**	2
Chichiri Met.	0.0	40.9	**0**	45.5	142.1	**32**	0
Chikwawa Boma	1.2	32.6	**4**	17.6	79.1	**22**	1
Chileka Airport	40.5	45.4	**89**	68.4	124.1	**55**	1
Chingale Agric	9.0	36.9	**24**	34.5	92.2	**37**	1
Chiradzulu Agric	25.4	44.2	**57**	41.0	116.0	**35**	2
Chizunga Factory	4.0	42.0	**10**	88.0	157.6	**56**	1
Lujeri Tea Estate	3.8	67.8	**6**	50.6	316.2	**16**	2
Mpilipili (Makanjila)	12.0	N/A	**N/A**	12.0	**N/A**	**N/A**	2
Makoka Met	61.0	40.4	**151**	63.9	108.2	**59**	3
Masambanjati Agric	22.1	45.4	**49**	55.6	150.4	**37**	2
Mimosa Met.	1.3	48.6	**3**	64.8	196.8	**33**	1
Monkey Bay Met.	38.4	16.0	**240**	63.2	47.0	**134**	3
Mpemba Vet	2.6	50.9	**5**	66.2	151.2	**44**	2
Mulanje Boma	12.5	51.7	**24**	26.3	247.6	**11**	1
Namiasi Agric	47.2	16.9	**279**	59.5	47.7	**125**	3
Naminjiwa Agric	59.6	33.7	**177**	143.9	100.4	**143**	2
Nchalo Sucoma	3.3	14.3	**23**	14.4	77.0	**19**	1
Neno Agric	0.0	40.9	**0**	33.0	123.5	**27**	0
Ngabu Met.	0.0	29.7	**0**	5.3	88.7	**6**	0
Nsanje Boma	0.0	36.1	**0**	18.3	123.6	**15**	0
Ntaja Met.	76.0	40.3	**189**	101.6	81.5	**125**	1
Satemwa	0.6	49.2	**1**	30.5	168.1	**18**	1
Thyolo Met	6.0	38.7	**16**	36.9	143.2	**26**	2
Zomba R.T.C	34.8	58.3	**60**	61.4	128.4	**48**	2
CENTRE							
Chileka Namitete	51.3	39.6	**130**	94.2	99.9	**94**	4
Chitedze Met.	97.7	36.7	**266**	116.8	91.4	**128**	6
Dedza Met	12.2	29.3	**42**	88.6	71.2	**124**	5
Dowa Agric	10.0	28.2	**35**	16.2	58.7	**28**	1
Dwangwa	12.7	26.3	**48**	33.2	99.6	**33**	5
K.I.A Met	18.3	19.9	**92**	51.0	68.9	**74**	4
Kasiya Agric	56.2	37.5	**150**	167.7	100.2	**167**	5
Kasungu Met	33.1	32.3	**102**	34.5	77.2	**45**	4
Madisi Agric	22.7	29.0	**78**	26.7	58.1	**46**	2
Mchinji Boma	36.4	37.7	**97**	105.3	109.4	**96**	5
Mkanda Met	111.1	20.0	**556**	169.4	118.1	**143**	5
Mlangeni Njolomole	77.3	27.4	**282**	128.3	92.1	**139**	2
Mtakataka Airwing	89.1	21.8	**409**	143.3	77.8	**184**	3
Nathenje Agric	68.0	33.1	**205**	106.5	80.3	**133**	3
Nkhotakota Met	82.1	31.9	**257**	87.1	71.8	**121**	1
Ntcheu - Nkhande	30.3	36.4	**83**	41.5	90.6	**46**	3
Ntchisi Boma	14.0	26.1	**54**	15.7	49.9	**31**	1
Salima Met	6.1	21.3	**29**	44.4	48.4	**92**	3
Sinyala Agric	67.0	39.3	**170**	173.0	100.6	**172**	3
Dedza RTC	43.0	22.1	**195**	105.9	82.7	**128**	6
NORTH							
Baka Res. Stn.	35.9	31.7	**113**	35.9	42.9	**84**	3
Bolero Met	52.2	22.0	**237**	55.6	84.9	**65**	5
Bwengu Agric.	23.0	21.2	**108**	23.0	61.6	**37**	4
Chitipa Met	47.3	50.8	**93**	47.3	81.9	**58**	4
Chintheche Agric	18.9	57.6	**33**	27.2	209.3	**13**	1
Euthini Agric.	115.7	24.2	**478**	115.7	59.4	**195**	6
Karonga Met.	10.7	33.4	**32**	10.9	46.8	**23**	3
Lupembe	54.2	30.1	**180**	54.2	49.3	**110**	4
Mbawa Res. Stn	103.5	33.1	**313**	108.5	69.3	**157**	5
Mzimba Met	40.3	24.8	**163**	61.2	60.4	**101**	4
Mzuzu Met.	20.6	51.8	**40**	40.5	137.9	**29**	4
NkhataBay Met.	73.3	27.8	**264**	85.8	282.9	**30**	8

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 21 – 30 November 2008

STATION	MAX TEMP (℃)	MIN TEMP (℃)	ABS MAX (℃)	ABS MIN (℃)	WIND SPEED m/s	RH %
BOLERO	30.8	18.5	33.9	17.1	N/A	64
BVUMBWE	28.4	17.8	31.3	15.5	2.0	63
CHICHIRI	30.1	18.9	33.0	16.0	0.8	53
CHILEKA	32.3	21.6	34.9	18.3	3.1	57
CHITEDZE	28.5	18.6	31.9	17.0	0.9	69
CHITIPA	29.0	18.3	31.8	17.0	1.8	60
DEDZA	24.9	16.8	26.8	15.3	1.1	73
K I A	28.2	18.2	30.6	17.4	1.8	63
KARONGA	31.6	24.0	33.0	21.5	1.6	69
KASUNGU	30.3	19.4	33.0	18.5	2.3	66
MAKOKA	30.8	19.1	33.0	15.9	1.5	59
MIMOSA	33.9	19.1	37.5	16.2	1.4	52
MONKEY BAY	32.0	24.2	34.2	20.2	2.1	62
MZIMBA	28.7	17.8	31.4	16.5	0.7	64
MZUZU	29.2	17.9	32.1	16.0	1.8	72
NGABU	38.3	25.5	41.8	23.0	3.8	56
NKHATA BAY	31.5	21.6	33.6	20.4	0.9	74
NKHOTAKOTA	30.3	23.7	32.9	21.4	N/A	66
NTAJA	31.9	22.0	34.6	20.5	2.1	65
SALIMA	32.1	23.3	34.0	21.2	2.3	66

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