10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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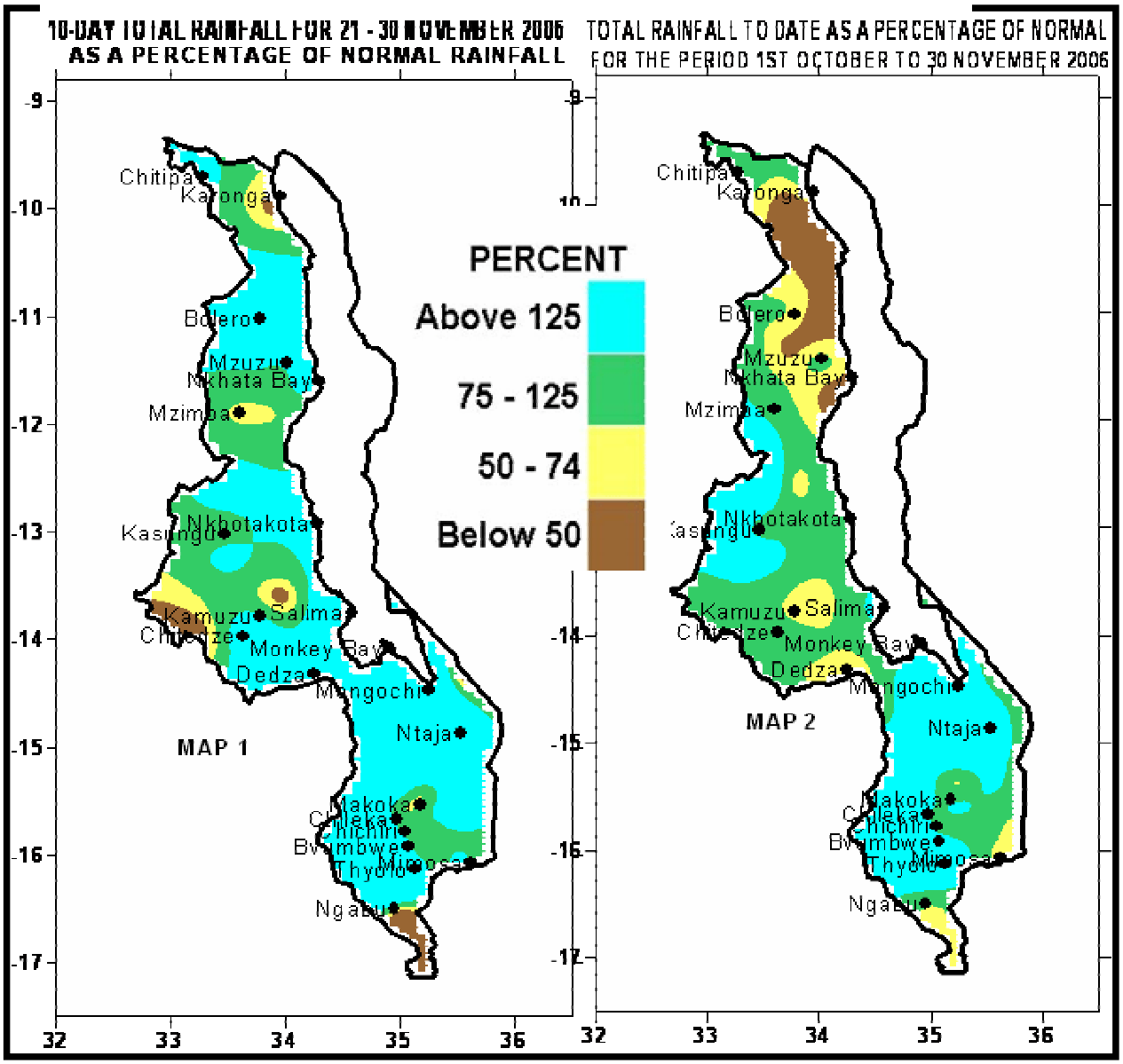
HIGHLIGHTS

- **Moderate to heavy rainfall continued in some parts of Malawi…**
- **Floods reported in Chikwawa and Machinga districts in southern Malawi…**
- **Widespread locally heavy rains expected during 1 – 10 December, 2006…**



All inquiries should be addressed to: The Director of Meteorological Services, P.O. Box 1808, Blantyre, MALAWI
Tel: (265) 1 822 014 Fax: (265) 1 822 215 E-mail: metdept@metmalawi.com Homepage: www.metmalawi.com

1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

Due to incursion of moist and unstable Congo Air mass, moderate to heavy rains that started falling during the second ten-days of November 2006, continued in most parts of the country into the first half of the last 10-days of the month. Fairly good rainfall distribution and amounts were reported in most parts of the country except for a few localised areas. Notable 10-day total rainfall amounts of more than 130mm were mostly confined to the south. Such places included Neno (184.3mm), Zomba RTC (157.3), Liwonde Township (155.7mm), Toleza Farm in Balaka (147.6), Mangochi Met (137.8mm), and Balaka Township (133.6mm). As a result of heavy rains, floods were reported in Chikwawa and Machinga districts.

Map 2 displays cumulative rainfall amounts for October and November 2006 expressed as percentage of normal rainfall. From the map most areas (green and light blue colours) in Malawi except for the north had received normal to above normal rainfall amounts by end of November 2006. See Map 2 and Table 1.

1.2 MEAN AIR TEMPERATURE

Warm to hot and wet weather prevailed over Malawi during the period under review. Mean daily maximum temperatures ranged from 25.1°C at Bvumbwe in Thyolo district to 35.9°C at Ngabu in Chikwawa district. At the same time mean daily minimum temperatures ranged from 15.4°C at Bvumbwe to 24.5°C at Ntaja in Machinga district.

1.3 MEAN DAILY WIND SPEEDS

At a height of two meters above the ground mean daily wind speeds were generally light and variable. The highest wind speed was reported at Ngabu and Salima (3.1m/s or 11.2Km/hr) while the lowest wind speed reported was 1.0m/s or 3.6 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Due to wet conditions high mean daily relative humidity were observed in most areas. The highest was still reported at Bvumbwe (79%) while the lowest was registered at Nkhota Kota (58%).

2. AGROMETEOROLOGICAL ASSESSMENT

Generally good rains for agricultural production fell in most parts of the country during the period under review. These rains facilitated land preparations, planting of crops, fertiliser application, improved water resources, soil moisture reserves and supported germination of crops. Good crop emergence has been experienced in most areas except for a few cases where reports indicated that high rainfall had compacted the top soil causing poor crop germination. However, in some areas particularly in the south reports indicated that continuous heavy rains culminated into floods. According to Malawi News Agency, due to heavy that fell in some parts of Mwanza district a swollen Mwanza river flooded parts of Chikwawa district, washing away crops on its banks, submerging houses and displacing thousands of people. Following the floods the road to Nsanje was rendered impassable. Floods were also reported in Machinga district.

3. PROSPECTS OF 2006/07 SEASON

Although a weak to moderate El-Nino is currently developing in the Pacific, all climate models that are currently available predict that a greater part of Malawi is likely to experience normal total rainfall amounts with localized dry spells and flush floods during 2006/07 rainfall season.

4. OUTLOOK FOR 01 – 10 DECEMBER 2006

Meanwhile, medium range forecasts indicate that the development of a deep low pressure area in Mozambique Channel will cause moist and unstable Congo air to cover most parts of Malawi. Therefore, expect widespread rains with locally heavy thunderstorms particularly over southern Malawi during the period 1 – 10 December 2006.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3 OF NOVEMBER 2006: PERIOD 21 - 30

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
Balaka Township	133.6	35.0	**382**	183.9	104.5	**176**	3
Bvumbwe Met.	42.4	46.0	**92**	161.7	128.6	**126**	3
Chancellor College	129.2	50.5	**256**	190.7	127.6	**149**	4
Chichiri Met.	87.5	40.9	**214**	187.9	142.1	**132**	4
Chileka Airport	11.7	45.4	**26**	145.6	124.1	**117**	3
Chingale Agric	39.8	36.9	**108**	66.3	92.2	**72**	3
Liwonde Township	155.7	25.7	**606**	167.7	73.3	**229**	3
Lujeri Tea Estate	71.7	67.8	**106**	197.4	316.2	**62**	5
Makoka Met	26.3	40.4	**65**	129.3	108.2	**120**	4
Mangochi Met.	137.8	32.2	**428**	314.1	78.0	**403**	4
Monkey Bay Met.	25.7	16.0	**161**	45.6	47.0	**97**	2
Mulanje Boma	70.5	51.7	**136**	176.0	247.6	**71**	2
Namiasi Agric	73.5	16.9	**435**	172.7	47.7	**362**	2
Naminjiwa Agric	42.4	33.7	**126**	73.0	100.4	**73**	3
Namwera Agric	11.2	37.0	**30**	67.0	96.7	**69**	2
Nchalo Sucoma	87.7	14.3	**613**	152.1	77.0	**198**	2
Neno Agric	184.3	40.9	**451**	340.0	123.5	**275**	4
Ngabu Met.	4.1	29.7	**14**	57.2	88.7	**64**	2
Nsanje Boma	10.7	36.1	**30**	83.1	123.6	**67**	2
Ntaja Met.	103.1	40.3	**256**	142.1	81.5	**174**	3
Satemwa Tea Est. No.1	55.7	49.2	**113**	174.1	168.1	**104**	4
Toleza Farm	147.6	30.0	**492**	229.4	87.8	**261**	3
Thyolo Met	70.4	38.7	**182**	230.2	143.2	**161**	3
Zomba R.T.C.	157.3	58.3	**270**	207.7	128.4	**162**	5
CENTRAL REGION							
Bunda College	52.5	26.6	**197**	77.5	100.2	**77**	4
Chileka Namitete	7.9	39.6	**20**	110.1	99.9	**110**	1
Chitedze Met.	81.9	36.7	**223**	108.4	91.4	**119**	3
Dowa Agric	2.0	28.2	**7**	25.9	58.7	**44**	1
Kaluluma DTC	21.2	12.3	**172**	130.4	40.3	**324**	3
K.I.A Met	26.1	19.9	**131**	38.9	68.9	**56**	5
Kasungu Met	27.3	32.3	**85**	65.3	77.2	**85**	2
Lisasadzi	36.1	22.6	**160**	82.6	45.4	**182**	4
Mchinji Boma	13.6	37.7	**36**	74.9	109.4	**68**	2
Mlangeni Njolomole	47.0	27.4	**172**	53.0	92.1	**58**	3
Nathenje Agric	50.5	33.1	**153**	71.5	80.3	**89**	2
Nkhotakota Met	50.5	31.9	**158**	65.1	71.8	**91**	3
Ntcheu - Nkhande	39.4	36.4	**108**	100.0	90.6	**110**	2
Salima Met	63.9	21.3	**300**	74.5	48.4	**154**	3
NORTHERN REGION							
Baka Res. Stn.	2.9	31.7	**9**	2.9	42.9	**7**	1
Bolero Met	53.9	22.0	**245**	66.0	84.9	**78**	1
Chitipa Met	77.7	50.8	**153**	77.7	81.9	**95**	5
Chintheche Agric	45.5	57.6	**79**	45.5	209.3	**22**	2
Karonga Met.	17.0	33.4	**51**	52.5	46.8	**112**	5
Mzimba Met	14.6	24.8	**59**	59.6	60.4	**99**	4
Mzuzu Met.	67.7	51.8	**131**	125.4	137.9	**91**	4
NkhataBay Met.	60.9	27.8	**219**	112.7	282.9	**40**	5

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 3 OF NOVEMBER 2006

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	25.1	15.4	28.5	12.5	1.7	79
BOLERO	30.1	19.4	34.2	17.6	1.2	61
CHICHIRI	26.0	17.6	30.0	15.0	1.0	76
CHILEKA	28.4	20.3	33.1	18.5	2.9	73
NTAJA	29.4	24.5	34.6	18.0	2.7	69
CHITEDZE	28.7	18.0	33.8	16.2	1.1	63
CHITIPA	28.0	18.9	33.2	18.0	2.6	68
KASUNGU	29.2	18.7	34.2	15.2	2.0	60
KARONGA	31.3	23.6	34.0	22.5	1.0	68
K I A	27.7	17.2	32.1	15.4	2.0	63
MAKOKA	26.9	17.7	31.8	15.1	1.3	75
MANGOCHI	30.7	22.6	35.5	20.0	1.7	71
MONKEY BAY	31.1	23.9	35.3	20.4	2.5	59
MZIMBA	28.6	17.7	32.0	15.2	1.1	60
MZUZU	25.9	16.5	29.6	14.0	1.9	74
NGABU	35.9	23.9	39.2	20.5	3.1	64
NKHATA BAY	31.1	20.7	34.6	19.5	1.0	71
NKHOTAKOTA	34.6	20.6	34.6	20.6	2.5	58
SALIMA	30.9	23.2	34.7	21.1	3.1	62

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