10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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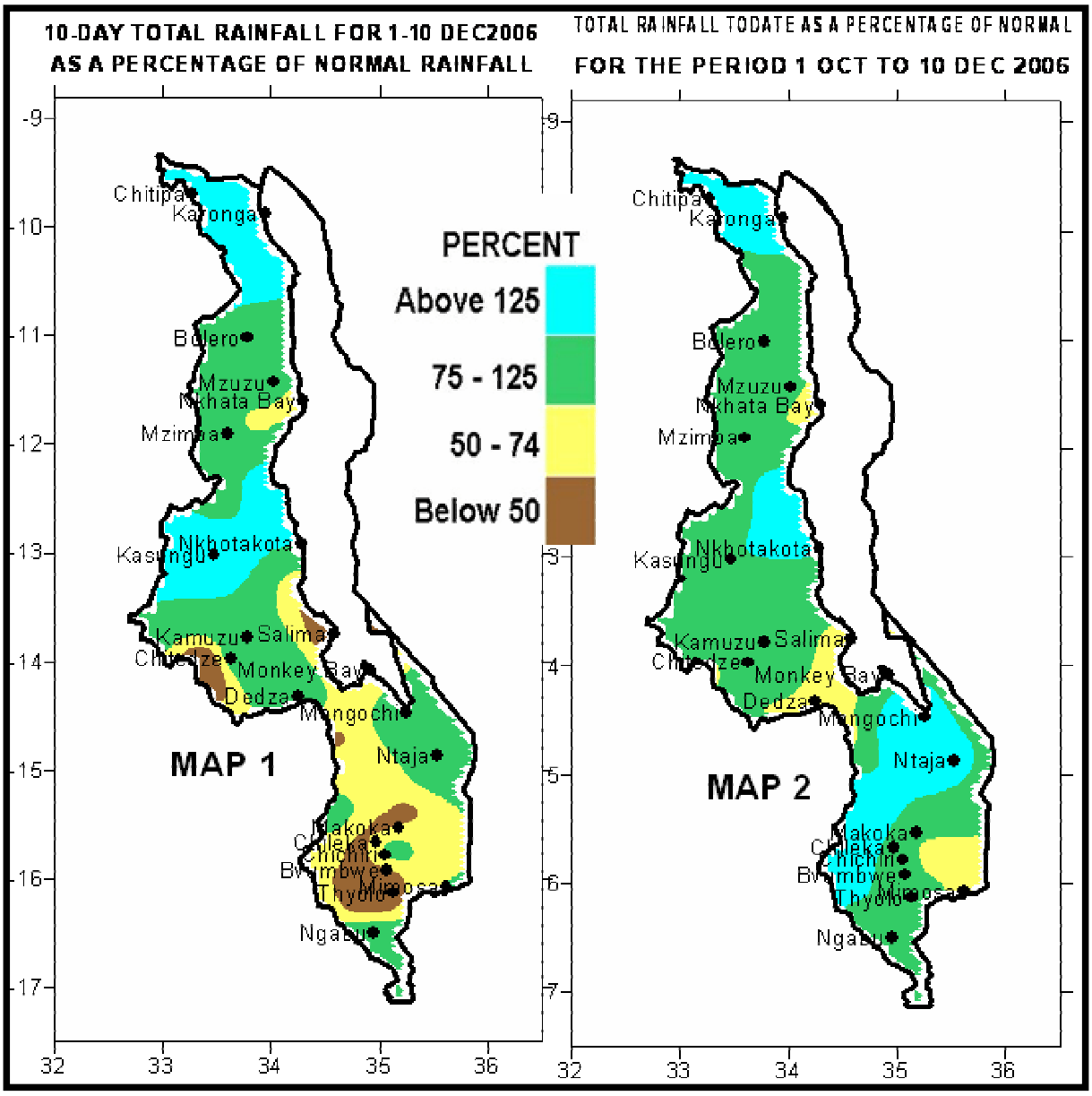
HIGHLIGHTS

- **A reduction in rainfall intensity experienced over Malawi…**
- **Agricultural activities were enhanced in most parts of Malawi…**
- **Widespread locally heavy rains expected during 11 – 20 December, 2006…**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the first ten days of December 2006, the Inter Tropical Convergence Zone (ITCZ) was weakly active over Malawi such that moderate rains were experienced in most parts of the country. Generally the amounts were lower compared to the previous ten day period. The spatial distribution as well as amounts was better in the northern half of the country compared to the southern half (see Map 1). Only Dwangwa reported an amount higher than 100 mm (Table 1).

Cumulatively from 1st October to 10th December 2006, most areas of the country have received normal to above normal rainfall amounts (green and light blue colours). However there are pockets of areas with below normal amounts (yellow colour) mainly in the southern region (Map 2 and Table 1).

1.2 MEAN AIR TEMPERATURE

During the period under review Malawi experienced generally warm to hot conditions. Mean daily maximum temperatures ranged between 24.0°C and 37.2°C at Dedza and Ngabu respectively. At the same time, mean daily minimum temperatures ranged from 16.2°C at Dedza to 25.0°C at Ngabu in Chikwawa district (Table 2).

1.3 MEAN DAILY WIND SPEEDS

Mean daily wind speeds, measured at a height of two meters above the ground were generally light. The highest wind speed was reported at Ngabu and Salima (2.5 m/s or 7.56 Km/hr) while the lowest wind speed was recorded at Chitedze and Mzimba (0.7m/s or 2.52 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Generally high mean daily relative humidity values were reported in most areas. The highest was still reported at Mzuzu (77%) while the lowest was registered at Ngabu (58%). See Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

Generally good rains for agricultural production continued in most parts of the country during the period under review. As such farmers continued with land preparation, planting of crops and basal fertiliser application. The good rains continued to improve water resources, soil moisture reserves and supported seed germination, growth and development of crops. In some areas particularly over southern Malawi where crops had already germinated, farmers took advantage of a slight break in rainfall to start weeding their gardens. Maize crop across was reported at various stages of development ranging from germination to early vegetative stage. For good yields to be achieved, agricultural extension officers should encourage farmers to adhere to principles of good crop husbandry. Good crop husbandry practices include early land preparation, use of improved seed, timely planting, implementation of proper plant population and spacing, control of weeds, pests and diseases and timely fertiliser application.

Most smallholder farmers in Malawi depend on government subsidy programme for farm inputs. So far, media reports indicate that farmers in most parts of the country are facing problems to access farm inputs from the government subsidy programme due to shortage of coupons. This problem if not solved promptly could negatively affect overall crop production in 2006/2007 growing season.

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 receive normal total rainfall amounts with localized dry spells and flush floods during 2006/07 rainfall season.

4. OUTLOOK FOR 11 – 20 DECEMBER 2006

Meanwhile, models for medium range forecasts indicate that the Inter Tropical Convergence Zone (ITCZ) will oscillate over Malawi during the period 11 – 20 December 2006. Therefore, scattered to widespread rains and locally heavy thunderstorms are expected over the country during the period.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 1 OF DECEMBER 2006: PERIOD 01 - 10

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	34.0	66.7	**51**	217.9	171.2	**127**	3
Bvumbwe Met.	38.3	86.0	**45**	200.0	214.6	**93**	7
Chancellor College	55.3	117.8	**47**	246.0	245.4	**100**	5
Chichiri Met.	73.9	80.1	**92**	261.8	222.2	**118**	4
Chileka Airport	16.2	55.7	**29**	161.8	179.8	**90**	2
Chiradzulu Agric	54.8	58.2	**94**	99.5	174.2	**57**	4
Lujeri Tea Estate	91.6	109.9	**83**	289.0	426.1	**68**	7
Makoka Met	42.6	81.8	**52**	171.9	190.0	**90**	5
Mangochi Met.	62.9	53.6	**117**	377.0	131.6	**286**	3
Mimosa Met.	70.0	103.5	**68**	121.7	300.3	**41**	5
Monkey Bay Met.	36.1	67.0	**54**	81.7	114.0	**72**	4
Mulanje Boma	72.1	93.5	**77**	248.1	341.1	**73**	3
Namiasi Agric	59.1	61.9	**95**	231.8	109.6	**211**	2
Naminjiwa Agric	41.2	78.5	**52**	114.2	178.9	**64**	4
Namwera Agric	69.5	71.9	**97**	136.5	168.6	**81**	5
Nchalo Sucoma	6.2	57.9	**11**	158.3	134.9	**117**	1
Neno Agric	65.0	69.5	**94**	405.0	193.0	**210**	2
Ngabu Met.	75.5	63.9	**118**	132.7	152.6	**87**	2
Ntaja Met.	83.4	67.9	**123**	225.5	149.4	**151**	4
Satemwa Tea Estate	26.8	98.9	**27**	200.9	267.0	**75**	3
Thyolo Met	27.7	80.4	**34**	257.9	223.6	**115**	3
CENTRAL REGION							
Bunda College	43.0	58.7	**73**	120.5	158.9	**76**	4
Chileka Namitete	4.0	60.4	**7**	114.1	160.3	**71**	1
Chitedze Met.	66.0	62.4	**106**	174.4	153.8	**113**	3
Dedza Met	70.0	61.9	**113**	73.1	133.1	**55**	7
Dwangwa Sugar	170.9	81.9	**209**	354.4	181.5	**195**	6
K.I.A Met	49.8	48.5	**103**	88.7	117.4	**76**	4
Kasungu Met	97.1	53.6	**181**	162.4	130.8	**124**	6
Mchinji Boma	66.2	61.4	**108**	141.1	170.8	**83**	3
Mlangeni Njolomole	25.0	56.6	**44**	78.0	148.7	**52**	2
Nathenje Agric	63.5	47.7	**133**	135.0	128.0	**105**	4
Ntchisi Boma	25.6	49.0	**52**	90.7	98.9	**92**	3
Salima Met	8.4	75.9	**11**	82.9	124.3	**67**	2
NORTHERN REGION							
Bolero Met	45.9	43.8	**105**	111.9	128.7	**87**	7
Chikangawa forest	42.4	66.6	**64**	123.3	162.7	**76**	8
Chitipa Met	93.3	51.2	**182**	171.0	133.1	**128**	7
Emfeni Agric	69.3	70.1	**99**	128.8	115.0	**112**	6
Karonga Met.	72.0	39.1	**184**	124.5	85.9	**145**	3
Mzimba Met	55.8	59.0	**95**	115.4	119.4	**97**	8
Mzuzu Met.	56.1	59.2	**95**	181.5	197.1	**92**	6
NkhataBay Met.	40.0	75.8	**53**	152.7	358.7	**43**	3

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 1 OF DECEMBER 2006

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	27.7	16.3	30.0	14.0	1.6	74
BOLERO	29.9	19.0	33.0	17.9	0.8	71
CHICHIRI	28.5	18.9	30.0	16.3	0.8	70
CHILEKA	31.3	21.2	34.5	17.5	3.2	66
NTAJA	30.5	21.5	32.6	20.0	2.0	72
CHITEDZE	28.3	18.6	30.3	17.6	0.7	61
CHITIPA	27.6	18.1	30.1	17.1	1.7	76
DEDZA	24.0	16.2	26.1	14.2	1.1	N/A
KASUNGU	28.4	19.1	32.1	17.5	1.9	71
KARONGA	30.5	22.8	32.5	20.6	1.5	74
K I A	27.6	18.0	29.0	16.1	1.4	72
MAKOKA	29.1	18.5	31.7	15.8	1.1	71
MANGOCHI	32.1	22.7	34.1	21.8	1.6	70
MIMOSA	33.5	19.8	36.6	17.6	0.9	75
MONKEY BAY	31.2	23.4	30.4	21.0	2.4	67
MZIMBA	28.0	18.0	28.7	16.1	0.7	71
MZUZU	26.3	17.6	30.4	14.5	1.3	77
NGABU	37.2	25.0	41.6	22.7	2.5	58
NKHATA BAY	31.4	21.1	34.4	19.6	0.9	75
SALIMA	31.1	23.3	33.0	21.1	2.5	67

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