10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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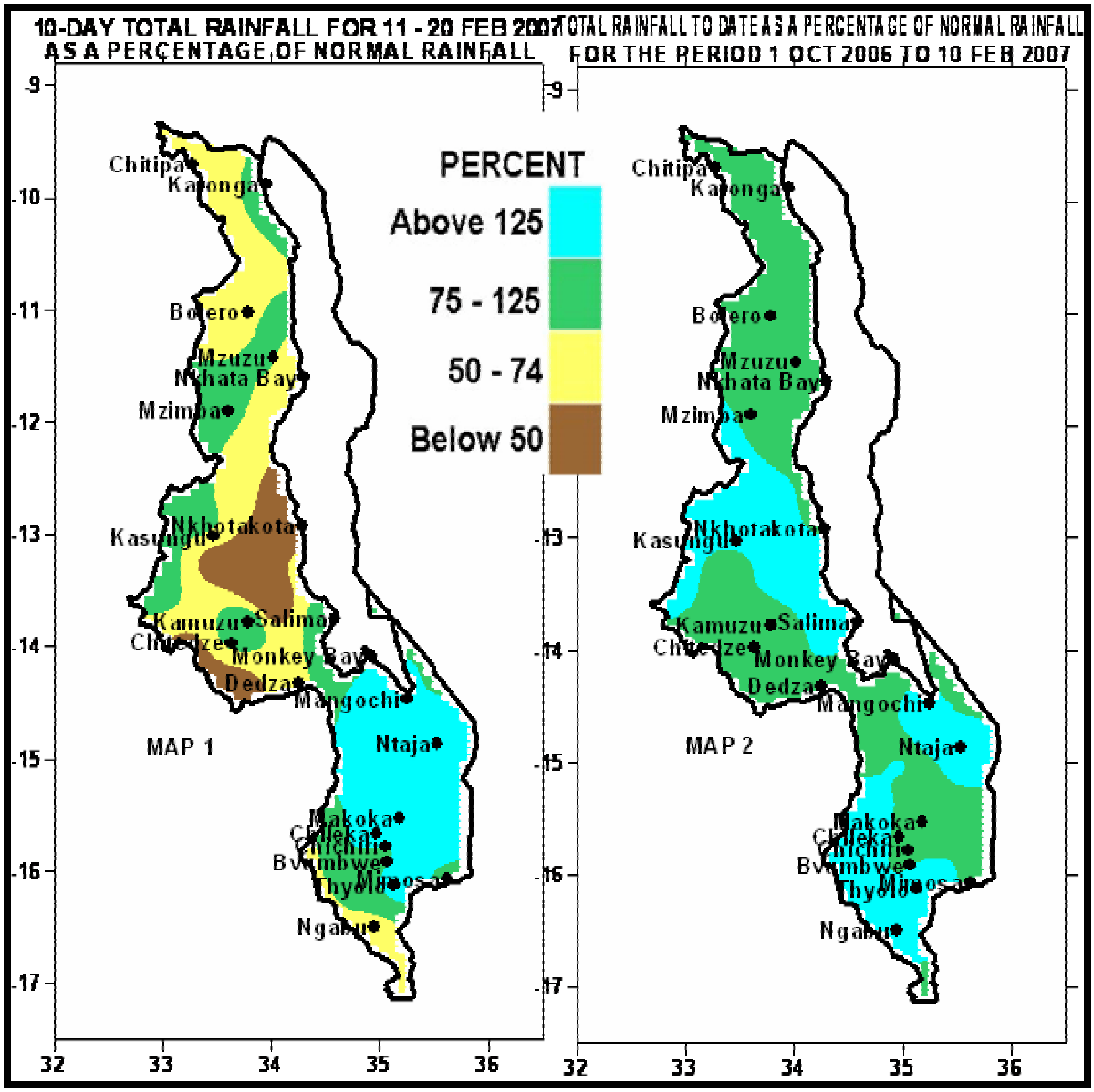
HIGHLIGHTS

- Central and northern Malawi experience mostly deficient rainfall…
- Maize crop ranges from flowering to maturity stages …
- Widespread locally heavy rains expected during 21 – 28 February, 2007…



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

In the second ten days of February 2007, both main rain bearing systems, namely moist Congo Air and Inter Tropical Convergence Zone, continued to relax over Malawi. As a result generally dekadal rainfall amounts and distribution continued to decline over most parts of the country particularly over the centre and north (yellow and brown colours on Map 1). Further analysis of February rainfall shows that some parts of the centre particularly in Kasungu and Nkhotakota districts have experienced below normal dekadal rainfall amounts for two consecutive dekads. Southern Malawi however witnessed an improvement in dekadal rainfall amounts in this dekad compared to the previous period. Some areas reported more than twice the expected dekadal rainfall amounts and these included Ntaja (313%) in Machinga, Kasinthula (293%) in Chikwawa, Balaka (277%), Namiasi (214%) in Mangochi, Chileka Airport (204%) in Blantyre and Zomba RTC (203%). See Table 1. Cumulative rainfall performance from October 2006 through 20 February 2007 indicates that generally normal to above-normal rainfall (green and light blue colours on Map 2) has been received throughout Malawi.

1.2 MEAN AIR TEMPERATURE

During the second ten days of February 2007 mean daily maximum temperatures remained warm to hot over most areas. Higher mean daily maximum temperatures were confined to Shire Valley and Lakeshore areas. The highest mean maximum temperaure was reported at Karonga (31.4°C) while the lowest mean maximum was registered at Dedza (23.8°C). At the same time, the lowest absolute minimum temperatures ranged from 13.4°C at Dedza to 21.0°C at Karonga and Nkhota Kota along the Lake Malawi (Table 2).

1.3 MEAN DAILY WIND SPEEDS

Mean daily wind speeds measured at a height of two meters above the ground were light. The highest speed was reported at Chileka (2.2 m/s or 7.9 Km/hr) while the lowest wind speed was recorded at Chitipa (0.1m/s or 0.4 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

There was a light reduction in mean daily relative humidity values in the second ten days of February 2007 compared to dekad. From Table 2 mean daily values ranged from 62% at Nkhota Kota to 81% at Kamuzu International Airport and Ntaja (81%) while in the first dekad the values ranged from 63 to 85%.

2. AGROMETEOROLOGICAL ASSESSMENT

The decline in dekadal rainfall amounts in the second ten days of February 2007 shifted from south and central Malawi to the centre and north. As a result some parts of central Malawi (yellow and brown colours on Map 1) have had poor rainfall performance for about twenty days in February and crops had to survive on residual moisture following good rains in January. However, if the situation continues for the next ten days then yields of some crops are likely to be negatively affected. This could compromise the projected first round national maize production forecast of 3.15 million metric tonnes.

The general crop stand in the fields was reported in good condition with Maize crop ranging from flowering to maturity stages. So far apart from water logging, nutrient leeching and floods that have been experienced in some parts of the country no major incidences of pests and diseases have been reported.

3. PROSPECTS OF 2006/07 SEASON

EL NIÑO WATCH: Most statistical and coupled model forecasts indicate that El Niño conditions are weakening and ENSO-neutral conditions are expected during the period March-May 2007. Although the updated forecast indicates greater likelihood of receiving normal to above normal rains over Malawi between February and April, still there is need to closely monitor rainfall performance since any prolonged dryness can negatively affect crop production as most crops still need adequate moisture to mature. properly.

4. OUTLOOK FOR 21 – 28 February 2007

Meanwhile, short to medium-term forecasts indicate that active Tropical cyclones in the Indian Ocean are likely to maintain Inter Tropical Convergence Zone and moist Congo Air over Malawi. Therefore widespread locally heavy rains are expected over Malawi during the period 21 – 28 February 2007.

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

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	111.3	40.2	**277**	808.8	614.2	**132**	3
Bvumbwe Met.	62.1	79.1	**79**	806.6	748.9	**108**	3
Chancellor College	102.9	82.0	**125**	1035.3	937.8	**110**	4
Chichiri Met.	93.4	80.1	**117**	837.2	759.6	**110**	3
Chileka Airport	138.5	67.8	**204**	777.2	638.4	**122**	3
Chingale Agric	158.1	79.5	**199**	746.4	695.7	**107**	5
Chiradzulu Agric	90.5	75.6	**120**	669.4	754.3	**89**	3
Kasinthula Res. Stn.	135.6	46.3	**293**	1076.8	487.8	**221**	4
Liwonde Township	116.0	60.2	**193**	651.2	591.4	**110**	3
Makoka Met	130.6	70.0	**187**	770.2	700.4	**110**	4
Mangochi Met.	152.7	68.3	**224**	982.8	600.2	**164**	4
Monkey Bay Met.	81.3	79.1	**103**	709.2	749.2	**95**	5
Mulanje Boma	68.2	103.7	**66**	1194.7	1029.1	**116**	3
Namiasi Agric	149.0	69.7	**214**	811.8	621.7	**131**	3
Naminjiwa Agric	124.2	75.2	**165**	734.0	715.9	**103**	4
Namwera Agric	64.0	77.4	**83**	601.6	744.3	**81**	2
Nchalo Illovo Sugar	58.0	56.6	**102**	879.7	492.2	**179**	4
Nsanje Boma	37.3	66.8	**56**	724.0	619.3	**117**	5
Ntaja Met.	204.7	65.4	**313**	1087.1	629.2	**173**	5
Satemwa Tea Est. No.1	136.0	75.9	**179**	1175.9	854.0	**138**	3
Toleza Farm	107.6	65.0	**166**	690.1	613.6	**112**	4
Thyolo Met	80.1	83.0	**97**	991.4	785.3	**126**	3
Zomba RTC	139.9	68.8	**203**	1189.7	849.2	**140**	10
CENTRAL REGION							
Bunda College	27.0	57.3	**47**	718.8	615.8	**117**	4
Chileka Namitete	21.7	68.3	**32**	640.4	677.3	**95**	3
Chitedze Met.	64.7	64.5	**100**	864.5	651.1	**133**	4
Dedza Met	53.2	83.4	**64**	813.9	681.8	**119**	6
Dwangwa Illovo Sugar.	21.5	52.6	**41**	884.4	731.4	**121**	3
K.I.A Met	67.4	57.8	**117**	620.0	605.4	**102**	5
Kasungu Met	67.7	85.0	**80**	971.1	647.8	**150**	6
Lisasadzi	11.5	63.9	**18**	692.6	611.4	**113**	4
Mchinji Boma	49.9	77.7	**64**	887.7	734.7	**121**	3
Mkanda Met	37.2	37.8	**98**	881.8	660.1	**134**	5
Mlangeni Njolomole	102.5	93.3	**110**	660.1	721.1	**92**	5
Nathenje Agric	54.0	82.8	**65**	778.1	623.0	**125**	4
Natural Res. College	75.4	76.2	**99**	N/A	623.9	N/A	5
Nkhotakota Met	34.3	97.6	**35**	795.5	807.3	**99**	4
Ntchisi Boma	40.7	71.8	**57**	1690.1	616.9	**274**	7
Salima Met	104.3	96.4	**108**	1100.9	831.7	**132**	5
NORTHERN REGION							
Bolero Met	40.1	71.1	**56**	592.1	540.9	**109**	7
Bwengu Agric.	59.7	71.1	**84**	683.5	597.2	**114**	4
Chitipa Met	40.5	75.4	**54**	831.2	680.6	**122**	5
Chintheche Agric	38.4	64.5	**60**	673.1	874.0	**77**	3
Karonga Met.	45.9	53.3	**86**	591.2	526.0	**112**	3
Mzimba Met	61.1	74.8	**82**	757.2	626.4	**121**	6
Mzuzu Met.	54.2	69.6	**78**	794.5	695.1	**114**	6
NkhataBay Met.	34.6	80.2	**43**	878.4	929.4	**95**	5

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 2 OF FEBRUARY 2007

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	28.6	18.1	30.8	16.8	0.7	76
BVUMBWE	25.5	15.0	26.9	13.8	1.3	75
CHICHIRI	25.7	17.7	27.6	15.3	0.8	75
CHILEKA	27.7	19.2	30.0	18.1	2.2	77
NTAJA	28.0	20.1	30.4	17.7	0.5	81
CHITEDZE	27.5	17.8	29.7	16.1	0.6	77
CHITIPA	27.0	17.6	29.6	17.6	0.1	75
DEDZA	23.8	15.2	25.6	13.4	1.1	77
KASUNGU	28.3	18.6	30.2	17.1	0.4	78
KARONGA	31.4	22.7	35.4	21.0	1.1	73
K I A	26.5	17.0	28.7	15.2	1.1	81
MAKOKA	26.6	17.5	29.6	15.9	1.2	77
MANGOCHI	29.7	21.3	31.5	19.4	1.4	80
MONKEY BAY	29.3	21.4	30.5	19.3	1.3	77
MZIMBA	26.7	17.1	28.6	16.0	1.0	77
MZUZU	26.4	17.5	29.1	16.2	1.8	77
NKHATA BAY	31.0	21.3	34.6	20.7	0.8	77
NKHOTAKOTA	28.7	22.0	30.6	21.0	1.7	62
SALIMA	29.3	21.2	31.0	20.3	1.5	79

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