10-Day Rainfall & Agromet Bulletin

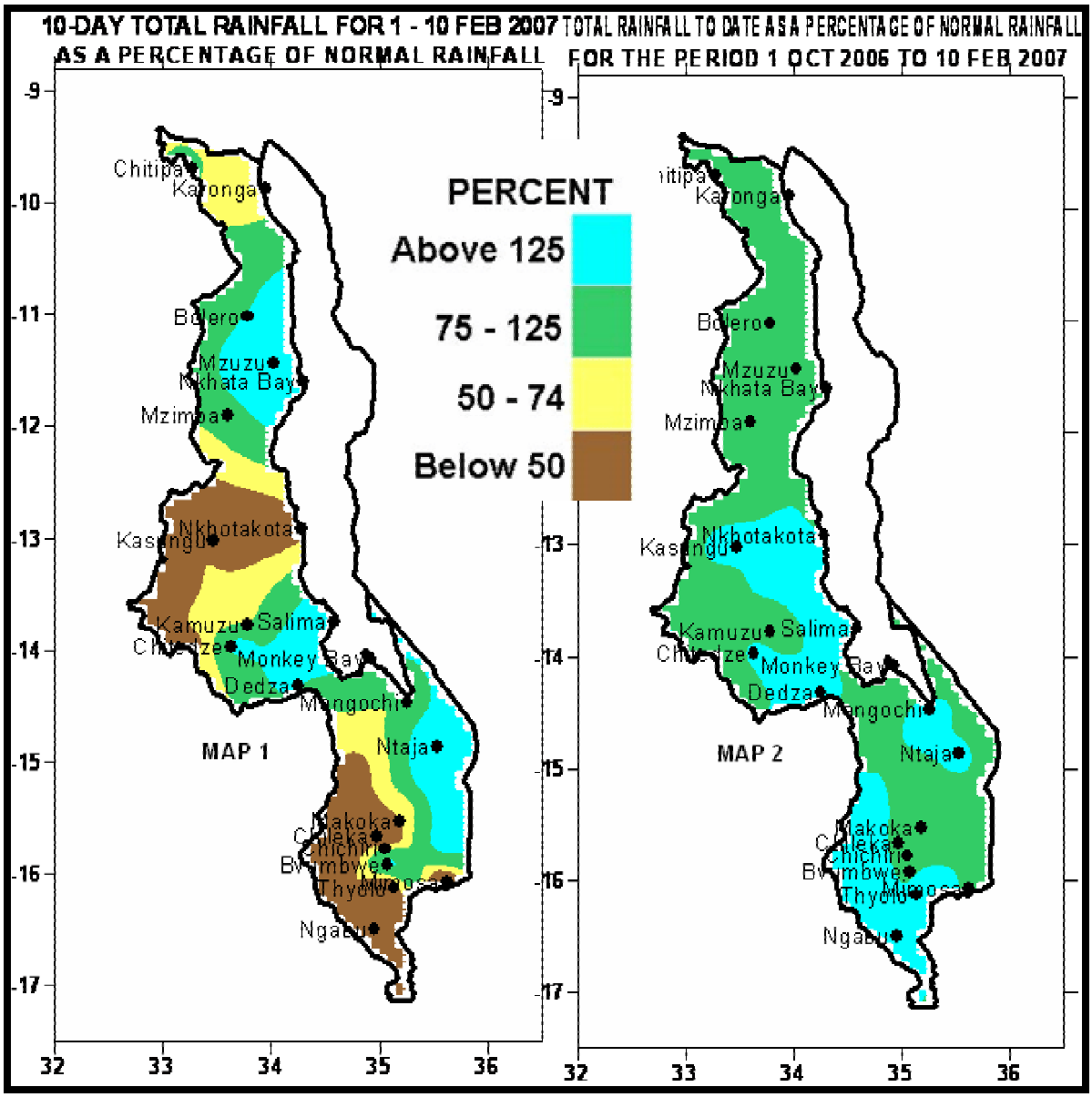
Department of Meteorological Services

Period: 01 – 10 February 2007 | Season: 2006/2007 | Issue No.13

Release date: 14 February 2007

HIGHLIGHTS

- **Reduced rainfall experienced over most parts of Malawi…**
- **Maize crop ranges from flowering to maturity stages …**
- **Locally heavy rains to shift northwards during 11 – 20 February, 2007…**
- **Models indicate weakening of El Nino conditions …**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the first ten days of February 2007, both main rain bearing systems, namely moist Congo Air and Inter Tropical Convergence Zone, relaxed over Malawi. Hence generally below normal dekadal rainfall with poor distribution in both time and space was reported over most parts of the country particularly over the south and centre (yellow and brown colours on Map 1). Nsanje Boma in lower Shire was dry throughout the entire 10-day period. The few areas that registered above normal dekadal rainfall amounts (light blue colours) during the period included Ntaja (215%) and Naminjiwa (158%) in the south, Salima (196%), Natural Resources College (156%) and Dedza (152%), in the centre and Mzuzu (237%) and Bwengu (182%) in the north. See Table 1.

Cumulative rainfall performance from October 2006 through 10 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 first dekad of February 2007 mean daily maximum temperatures remained in the warm to category over most areas in Malawi. Higher mean daily maximum temperatures were confined to Shire Valley and Lakeshore areas. The highest mean maximum temperaure was reported at Ngabu (34.6°C) in Chikwawa district while the lowest maximum was registered at Dedza (23.3°C). At the same time, mean daily minimum temperatures ranged from 16.0°C at Dedza to 23.9°C at Ngabu (Table 2).

1.3 MEAN DAILY WIND SPEEDS

At a height of two meters above the ground mean daily wind speeds were light. The highest speed was registered at Chileka (2.3 m/s or 8.3 Km/hr) while the lowest wind speed was recorded at Ntaja (0.4m/s or 1.4 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Most areas registered high mean daily relative humidity values except in lower Shire Valley where Ngabu reported the lowest 63% .The highest was registered at Salima and Bolero (85%). See Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

There was considerable reduction in rainfall amounts and distribution over most parts of Malawi particularly over the south and centre. during the first ten days of February 2007. Crops in some parts of the south started wilting due to a dry spell that lasted for five to ten days. Nsanje Boma in lower Shire reported ten dry days. However, rains returned to most areas from 10th February 2007.

The general crop stand in the fields was reported in good condition with Maize crop ranging mostly from flowering to maturity stages and if the good rains continue to February, many farmers face prospects of a good harvest. No major incidences of pests and diseases outbreaks have been reported so far.

Figures for 2006/07 growing season first round Agricultural Production Estimates released by the Ministry of Agriculture and Food Security on Friday 9th February 2007 estimated national maize production at **3,146,398** million metric tones which represents an increase of 22% over final round last season 2005/06.

3. PROSPECTS OF 2006/07 SEASON

EL NIÑO WATCH: Currently most statistical and coupled model forecasts indicate that El Niño conditions are weakening and ENSO-neutral conditions are expected to return 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 particularly over southern Malawi since any prolonged dryness can negatively affect on crop production.

4. OUTLOOK FOR 11 – 20 February 2007

Meanwhile, short to medium-term forecasts indicate active Inter Tropical Convergence Zone and moist Congo Air during the first five days before shifting northwards in the last five days. Therefore widespread locally heavy rains are expected over Malawi during first five days before shifting northwards during the last half of the period 11 – 20 February 2007.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 1 OF FEBRUARY 2007: PERIOD 01 - 10

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	37.7	75.0	**50**	697.5	574.0	**122**	1
Bvumbwe Met.	112.3	80.0	**140**	744.5	669.8	**111**	3
Chancellor College	127.4	113.8	**112**	932.4	855.8	**109**	6
Chichiri Met.	45.6	82.3	**55**	789.4	679.5	**116**	4
Chileka Airport	13.0	70.9	**18**	638.7	570.6	**112**	2
Chingale Agric	60.2	80.4	**75**	588.3	616.2	**95**	4
Chiradzulu Agric	31.7	79.8	**40**	578.9	678.7	**85**	1
Kasinthula Res. Stn.	49.8	54.2	**92**	941.2	441.5	**213**	2
Lujeri Tea Estate	40.7	126.3	**32**	1238.2	1202.4	**103**	5
Makoka Met	47.0	82.3	**57**	639.6	630.4	**101**	5
Mangochi Met.	62.7	86.8	**72**	830.1	531.9	**156**	6
Naminjiwa Agric	131.2	83.3	**158**	609.8	640.7	**95**	4
Nchalo Illovo	22.5	69.4	**32**	821.7	435.6	**189**	1
Neno Agric	66.9	140.5	**48**	1208.2	749.6	**161**	4
Ngabu Met.	24.1	69.6	**35**	747.2	489.8	**153**	1
Nsanje Boma	0.0	66.1	**0**	686.7	552.5	**124**	0
Ntaja Met.	134.7	62.6	**215**	882.4	563.8	**157**	7
Satemwa Tea Est. No.1	31.9	105.7	**30**	1039.9	778.1	**134**	2
Zomba RTC	50.6	101.1	**50**	1049.8	780.4	**135**	3
CENTRAL REGION							
Bunda College	55.5	58.5	**95**	691.5	558.5	**124**	5
Chileka Namitete	39.5	76.2	**52**	618.7	609.0	**102**	5
Chitedze Met.	76.4	72.1	**106**	799.8	586.6	**136**	5
Dedza Met	110.2	72.3	**152**	760.7	598.4	**127**	7
Dwangwa Sugar Estate.	56.1	85.7	**65**	862.9	678.8	**127**	5
K.I.A Met	45.9	68.8	**67**	552.6	547.6	**101**	7
Kasungu Met	24.5	88.9	**28**	903.4	562.8	**161**	4
Mchinji Boma	37.7	81.6	**46**	837.8	657.0	**128**	4
Mwimba Research	38.8	76.5	**51**	800.6	569.1	**141**	6
Nathenje Agric	87.6	66.6	**132**	724.1	540.2	**134**	6
Natural Res. College	90.0	57.8	**156**	N/A	547.7	**N/A**	7
Nkhotakota Met	35.0	94.0	**37**	761.2	709.7	**107**	5
Ntchisi Boma	54.3	72.3	**75**	1854.3	545.1	**340**	6
Salima Met	193.0	99.1	**195**	996.6	735.3	**136**	6
Dedza RTC	92.9	103.2	**90**	910.3	653.6	**139**	8
NORTHERN REGION							
Bolero Met	66.9	59.2	**113**	552.0	469.8	**117**	7
Bwengu Agric.	104.4	57.5	**182**	623.8	526.1	**119**	8
Karonga Met.	25.6	49.9	**51**	545.3	472.7	**115**	6
Mzimba Met	64.1	66.5	**96**	696.1	551.6	**126**	7
Mzuzu Met.	137.7	58.0	**237**	740.3	625.5	**118**	9

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 1 OF FEBRUARY 2007

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	27.5	18.0	29.5	16.0	0.4	85
BVUMBWE	26.8	16.1	28.2	15.0	1.1	75
CHICHIRI	26.9	18.9	28.5	18.0	0.7	74
CHILEKA	29.5	20.9	31.5	20.0	2.3	74
NTAJA	23.3	21.6	31.3	21.0	0.2	73
CHITEDZE	26.7	18.2	30.5	17.3	0.5	79
DEDZA	23.3	16.0	26.1	15.1	0.9	80
KASUNGU	28.1	19.0	30.1	17.1	0.4	72
KARONGA	30.3	22.2	33.5	21.5	0.9	78
K I A	25.9	17.7	29.8	17.0	0.9	82
MAKOKA	28.0	18.8	29.8	17.7	0.8	79
MANGOCHI	29.9	22.4	31.8	21.5	1.0	77
MZIMBA	26.5	17.2	28.3	15.6	0.7	81
MZUZU	26.1	17.5	28.4	16.4	1.4	84
NGABU	34.6	23.9	36.3	22.8	1.1	63
NKHOTAKOTA	27.9	22.2	30.2	20.1	1.5	81
SALIMA	28.4	21.9	31.1	20.4	1.3	85

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