10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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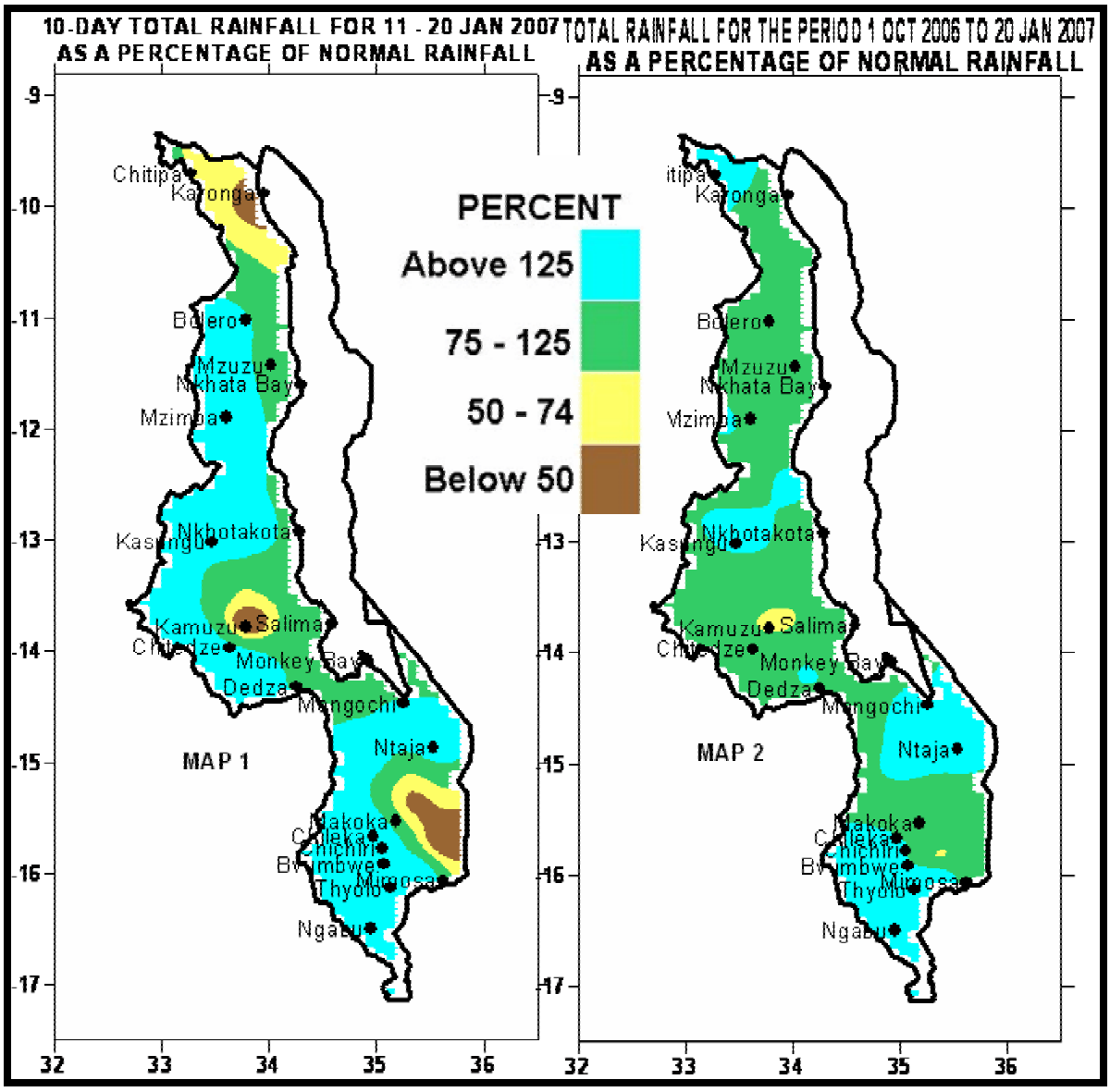
HIGHLIGHTS

- **Relatively reduced rainfall amounts experienced over Malawi…**
- **Maize crop in good condition mostly at vegetative to flowering stages …**
- **Widespread locally heavy rains expected during 21 – 31 January, 2007…**
- **El Nino conditions likely to continue during March - May 2007…**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the second dekad of January 2007, the combination of moist Congo Air and Inter Tropical Convergence Zone maintained generally reduced rainfall amounts but still widespread over Malawi As a result most areas continued to experience normal to above normal dekadal rainfall amounts (green to light blue colours on Map 1) with good spatial and temporal distribution. More rainy days were experienced in the north and centre but on average most areas registered at least five rainy days. Isolated locations that received below-normal rainfall amounts (yellow and brown colours on map 1) included areas around Karonga in the north, Kamuzu International Airport in the centre and Naminjiwa and Chingale in the south. See Map 1 and Table 1.

Cumulative rainfall performance from October 2006 through 20 January 2007 indicates generally normal to above-normal rainfall (green to light blue colours on Map 2) has been experienced throughout Malawi.

1.2 MEAN AIR TEMPERATURE

During the second dekad of January 2007 mean daily maximum temperatures over most areas in Malawi were in the warm to hot category. Higher mean daily maximum temperatures were confined to Shire Valley and Lakeshore areas. The lowest maximum was reported at Dedza (23.6°C) while the highest was reported at Ngabu (32.7°C). At the same time, mean daily minimum temperatures ranged from 15.6°C at Dedza to 23.2°C at Ngabu (Table 2).

1.3 MEAN DAILY WIND SPEEDS

Mean daily wind speeds measured at a height of two meters above the ground continued to light. The highest wind speed was still reported at Chileka (2.3 m/s or 8.3 Km/hr) while the lowest wind speed was recorded at Ntaja (0.1m/s or 0.4 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

Mean daily relative humidity values remained high over most parts of Malawi. The highest was registered at Mkondezi in Nkhata Bay (84%) while the lowest was registered at Ngabu (70%). See Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

Reduced rainfall amounts were received in the second dekad of January 2007 compared to incessant heavy rains received in the previous dekad. This decrease allowed floodwaters in some parts of the country particularly in the south to recede and water logging conditions to dry up. At the same time reduced rainfall activity allowed farmers to weed their fields, which is not possible with incessant heavy rains. The general crop stand in the fields was reported in good condition with Maize crop ranging from vegetative to flowering and cobbing stages So far no major incidences of pests and diseases have been reported. The planting rains began earlier than normal this season, implying that crops will mature early, and if the good rains continue to February, many farmers face prospects of a good harvest.

The good rains received so far this season have not only benefited crop production, but also the development of pastures as well. Pasture and drinking water for livestock are readily available, resulting in improvement of nutritional status of most animals.

3. PROSPECTS OF 2006/07 SEASON

EL NIÑO WATCH: The recent atmospheric circulation and precipitation patterns indicate that El Niño conditions in the tropical Pacific Ocean are likely continue through March - May 2007. Over Malawi, El Niño conditions have **sometimes** caused an extended dry spell in the January to March months following good rainfall early in the season, even though specific impacts vary year to year and area to area. If El Niño causes a significant decrease in rainfall during the second half of this season, households will be at risk of a below-average harvest, and rainfall should still be closely monitored in January and February for significant impacts of El Niño.

4. OUTLOOK FOR 21 – 31 January 2007

Meanwhile, models for medium range forecasts indicate that both the Inter Tropical Convergence Zone and moist Congo Air are likely to remain active over Malawi. Therefore widespread locally heavy rains will maintain wet conditions over most parts of the country during the period 21 – 31 January 2007.

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

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	79.4	52.2	**152**	590.0	401.8	**147**	3
Chancellor College	46.7	92.3	**51**	663.2	641.2	**103**	5
Chichiri Met.	121.2	74.7	**162**	679.0	504.2	**135**	5
Chileka Airport	106.4	50.2	**212**	559.0	420.4	**133**	3
Chingale Agric	20.5	75.9	**27**	387.1	441.0	**88**	1
Kasinthula Res. Stn.	93.1	33.3	**280**	749.6	324.8	**231**	6
Liwonde Township	63.3	81.0	**78**	505.7	377.9	**134**	4
Lujeri Tea Estate	113.1	127.7	**89**	971.5	941.3	**103**	4
Makoka Met	60.1	73.7	**82**	422.5	469.1	**90**	4
Mangochi Met.	89.8	59.6	**151**	692.9	371.1	**187**	4
Monkey Bay Met.	96.8	74.0	**131**	424.8	431.2	**99**	6
Namiasi Agric	38.7	65.4	**59**	461.0	346.8	**133**	5
Naminjiwa Agric	16.0	70.9	**23**	378.5	474.4	**80**	3
Nchalo Sugar Estate	77.0	35.8	**215**	634.0	312.0	**203**	4
Ngabu Met.	121.3	41.4	**293**	664.0	368.0	**180**	3
Nsanje Boma	136.3	60.5	**225**	585.2	411.3	**142**	3
Ntaja Met.	120.7	70.2	**172**	619.8	416.7	**149**	7
Satemwa Tea Est. No.1	105.7	55.0	**192**	804.6	577.4	**139**	7
Zomba RTC	60.0	90.9	**66**	762.4	572.0	**133**	7
CENTRAL REGION							
Bunda College	98.5	44.2	**223**	521.0	428.4	**122**	6
Chileka Namitete	102.4	61.3	**167**	394.6	445.9	**88**	7
Chitedze Met.	98.5	62.8	**157**	471.7	432.6	**109**	7
Dedza Met	78.3	69.3	**113**	541.6	430.5	**126**	8
Dwangwa Sugar Estate	91.6	86.3	**106**	710.0	506.1	**140**	8
K.I.A Met	18.0	83.2	**22**	268.3	387.9	**69**	7
Kasungu Met	172.4	72.2	**239**	685.3	406.9	**168**	8
Mlangeni Njolomole	90.3	75.0	**120**	390.3	449.7	**87**	4
Mponela Agric	44.0	72.7	**61**	329.5	351.8	**94**	5
Nathenje Agric	100.0	64.1	**156**	526.8	388.5	**136**	7
Ntchisi Boma	100.0	81.0	**123**	498.0	398.2	**125**	8
Salima Met	112.7	124.9	**90**	594.3	521.8	**114**	6
Dedza RTC	95.4	87.2	**109**	656.9	434.1	**151**	7
NORTHERN REGION							
Bolero Met	69.2	52.0	**133**	347.9	363.3	**96**	6
Chitipa Met	46.1	62.5	**74**	616.8	442.7	**139**	6
Karonga Met.	31.6	60.0	**53**	409.7	368.7	**111**	3
Mzimba Met	131.8	70.1	**188**	525.4	421.8	**125**	10
Mzuzu Met.	67.9	67.9	**100**	493.7	497.6	**99**	6
NkhataBay Met.	66.2	109.3	**61**	528.1	708.7	**75**	6

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 2 OF JANUARY 2007

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	27.9	18.2	31.4	17.5	0.4	82
CHICHIRI	27.1	18.6	28.7	16.5	0.5	80
CHILEKA	28.3	20.6	30.6	18.5	2.3	81
NTAJA	27.8	21.4	30.3	20.4	0.1	81
CHITEDZE	27.3	18.8	29.8	16.6	0.6	80
CHITIPA	26.5	17.8	29.5	17.0	1.2	79
DEDZA	23.6	15.6	25.5	11.2	1.0	80
KASUNGU	27.2	19.0	30.1	17.6	0.5	79
KARONGA	29.9	22.5	31.5	21.4	0.9	79
K I A	25.9	17.9	28.7	15.4	1.2	81
MAKOKA	27.7	19.8	31.0	17.1	1.1	79
MANGOCHI	30.0	22.4	31.5	21.5	1.3	81
MONKEY BAY	29.5	22.6	31.3	21.4	1.7	79
MZIMBA	26.5	17.3	29.9	16.1	0.7	80
MZUZU	25.8	17.5	29.8	15.5	1.2	83
NGABU	32.7	23.2	35.5	21.0	1.3	70
NKHATA BAY	29.6	21.3	32.6	20.6	0.7	84
SALIMA	29.0	20.1	31.4	21.0	1.8	82

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