10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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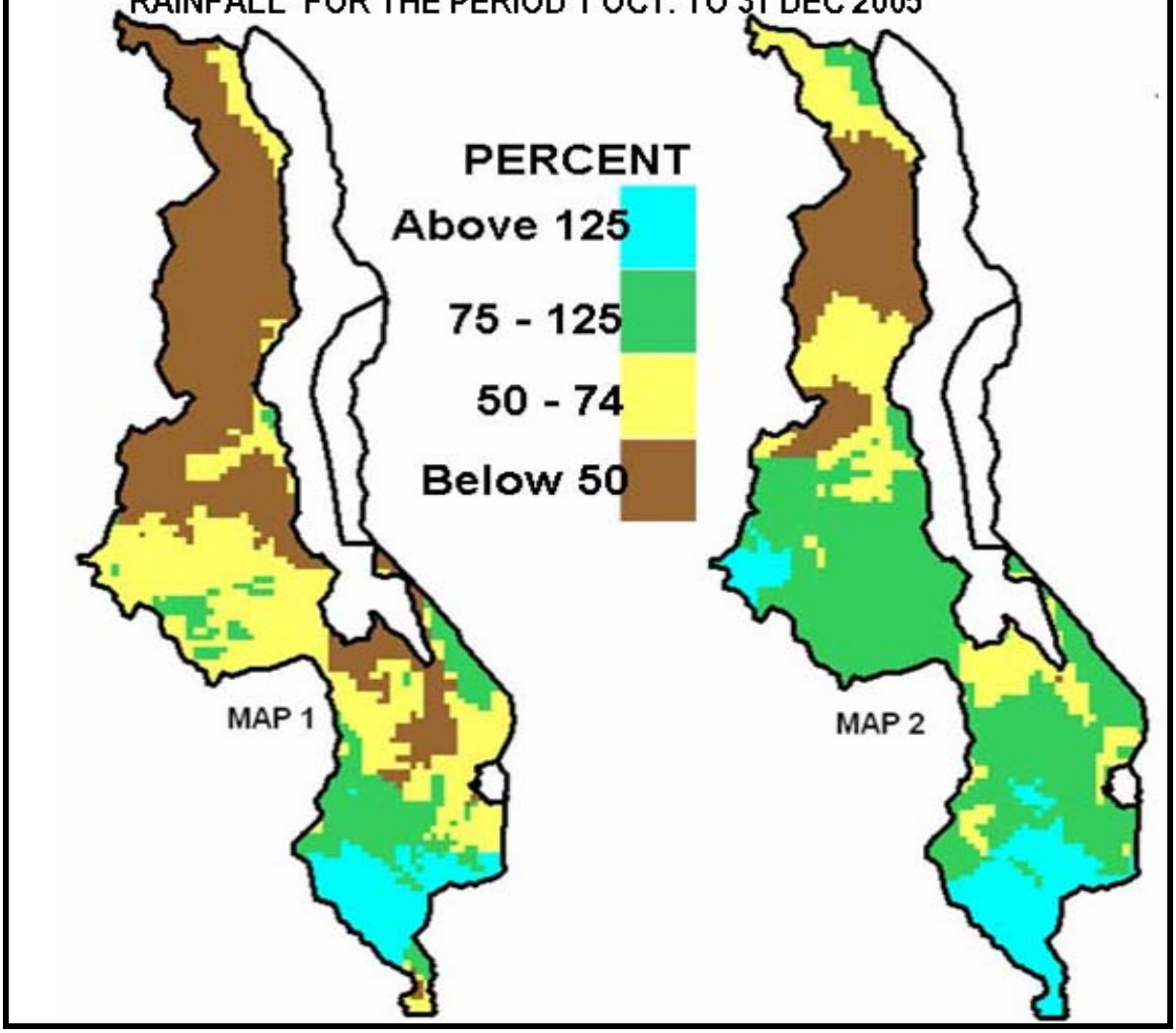
HIGHLIGHTS

- **Heavy rains experienced in southern Malawi…**
- **Floods reported in Chikwawa and Nsanje…**
- **Widespread rains to continue during 1 to 10 January 2006…**

MAP 1: 10-DAY RAINFALL FOR 21 – 31 DECEMBER 2005 AS PERCENTAGE OF NORMAL RAINFALL

MAP 2: TOTAL RAINFALL TO DATE AS PERCENTAGE OF NORMAL RAINFALL FOR THE PERIOD 1 OCT. TO 31 DEC 2005



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. WEATHER SUMMARY

1.1 RAINFALL

During the period under discussion both rain bearing systems, Congo Air and Inter Tropical convergence Zone (ITCZ), were active over Malawi. As A result rainfall distribution and amounts improved significantly. Some parts of the south and centre recorded between 9 and 11 rainy days with high 10-day rainfall amounts. High rainfall totals above 200mm included 318mm recorded at Lujeri Tea Estate 280mm at Mulanje Boma, 275mm at Mimosa while Thyolo Boma reported 271mm, Nchalo 203mm and Kasinthula 202mm. These amounts were much above the dekadal (10-day) normal for these stations. For instance, Nchalo received above normal rainfall amounts (446%) as the highest. Kasinthula had (381%) well above normal, Mulanje Boma (293%). See Table 1 and Map 1.

Cumulative rainfall expressed as a percentage of normal rainfall indicates that by end of December 2005 most parts of southern and central Malawi had received between 75 and 125% of the expected rainfall amounts for the first half of the season (October to December) with a few areas registering above 125% of the expected rainfall amounts. The north, however, had received below normal rainfall. See Table 1 and Map 2.

. MEAN AIR TEMPERATURE

During the period under review, mean air temperatures over Malawi were generally warm to hot. The mean maximum temperatures ranged from 25 and 34°C. Lower temperatures were mainly reported over highlands. The lowest maximum was reported at at Chitedze (25°C) while Ntaja recorded the highest (34°C). See Table 2.

. MEAN DAILY WIND SPEEDS

Mean daily wind speeds measured at a height of 2 meters above the ground were generally light. The average speeds ranged from 0.8 to 2.7 m/s (2.9 to 9.7 Km/hr). The lowest wind speed was reported at Chitedze and Mzimba while the highest was registered at Salima. See Table 2.

. MEAN RELATIVE HUMIDITY

The daily average relative humidity values over Malawi ranged from 67 to 94%. More areas experienced humid conditions due to a lot of rains that were received during the period. See Table 2.

. AGROMETEOROLOGICAL ASSESSMENT

Good rains, favourable for agricultural production covered most parts of the centre and south while the north generally received light rains in the last 10-days of December 2005. Heavy and continuous rains were experienced in some areas particularly in the south, causing soil water logging and flash floods in Chikwawa and Nsanje districts during the period. Crops and livestock were reported washed away and some houses fallen, rendering some farming families homeless. Reports indicated that farmers needed assistance for maize seed to replant when the waters recede. Meanwhile, people were reported to have difficulties in accessing certain areas as some roads were still impassable due to floods.

The general crop stand in the fields particularly for maize in most areas is reported in good condition, raising prospects for good harvests this season if good rains continue falling up to February and March 2006. Already in some parts of the south and the centre early planted hybrid maize has started tasseling while in the north the main rainfall season has just started and crops are at planting and germination stages.

. FORECAST FOR – JANUARY

Meanwhile, atmospheric conditions indicate that a deep low pressure area in Mozambique Channel will maintain moist and unstable Congo air over Malawi. Therefore, widespread rains that will be locally heavy particularly over southern Malawi are anticipated to continue during the period 1 – 10 January 2006.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3 OF DECEMBER 2005: PERIOD 21 - 31

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**
Bvumbwe Met.	200.7	71.6	**280**	460.5	345.7	**133**	10
Chancellor College	180.6	106.5	**170**	349.7	441.9	**79**	9
Chichiri Met.	152.8	73.4	**208**	343.5	352.8	**97**	9
Chileka Airport	119.2	64.8	**184**	306.0	301.9	**101**	7
Chiradzulu Agric	139.6	92.4	**151**	365.0	343.6	**106**	7
Kasinthula Res. Stn.	201.7	53.0	**381**	418.8	228.6	**183**	8
Liwonde Township	42.9	55.2	**78**	226.9	236.8	**96**	7
Lujeri Tea Estate	318.2	125.3	**254**	607.1	678.2	**90**	9
Mimosa Met.	274.5	95.7	**287**	486.0	474.4	**102**	11
Monkey Bay Met.	67.8	94.6	**72**	131.9	292.3	**45**	4
Mulanje Boma	280.1	95.7	**293**	744.5	524.1	**142**	8
Namiasi Agric	59.6	74.6	**80**	169.1	231.2	**73**	6
Naminjiwa Agric	88.9	82.8	**107**	218.4	332.2	**66**	8
Namwera Agric	160.6	78.9	**204**	293.5	324.0	**91**	8
Nchalo Sucoma	202.6	45.4	**446**	256.0	225.6	**113**	5
Ngabu Met.	193.4	65.2	**297**	372.6	265.8	**140**	9
Nsanje Boma	73.7	70.5	**105**	369.3	294.1	**126**	7
Ntaja Met.	68.7	64.4	**107**	141.5	276.6	**51**	6
Satemwa Tea Est. No.1	160.2	78.1	**205**	371.6	432.9	**86**	9
Thyolo Boma	270.6	96.5	**280**	552.2	376.0	**147**	9
Thyolo Met	173.2	84.4	**205**	354.1	386.7	**92**	10
CENTRAL REGION							
Chitedze Met.	112.7	71.5	**158**	201.5	292.2	**69**	9
Dwangwa Sugar Corp.	142.2	88.7	**160**	227.0	340.4	**67**	4
Kaluluma DTC	32.6	72.3	**45**	65.6	248.0	**26**	6
K.I.A. Met.	91.5	63.6	**144**	196.6	239.0	**82**	7
Kasungu Met	48.0	50.9	**94**	142.8	266.4	**54**	4
Lifuwu	111.6	104.3	**107**	202.6	305.2	**66**	4
Mchinji Boma	121.5	82.9	**147**	435.2	328.0	**133**	7
Mwimba Research	73.0	87.8	**83**	221.2	282.6	**78**	4
Nkhota kota	93.4	93.4	**100**	174.1	317.3	**55**	5
Ntcheu - Nkhande	152.7	93.9	**163**	277.3	331.4	**84**	7
Ntchisi Boma	39.5	74.7	**53**	153.2	241.1	**64**	3
Salima Met	99.8	86.9	**115**	185.0	295.7	**63**	5
Dedza RTC	78.5	72.5	**108**	242.0	271.5	**89**	7
NORTHERN REGION							
Bolero Met	22.5	66.1	**34**	35.3	244.4	**14**	4
Chitipa Met	45.8	102.7	**45**	165.7	303.5	**55**	6
Emfeni Agric	52.0	66.2	**79**	81.5	236.2	**35**	3
Karonga Met.	95.7	70.9	**135**	172.4	242.6	**71**	4
Mzimba Met	43.2	74.4	**58**	131.0	262.3	**50**	3
Mzuzu Met.	72.8	82.6	**88**	149.7	362.3	**41**	6
NkhataBay Met.	58.9	80.5	**73**	143.7	538.0	**27**	7
Vinthukutu Agric	93.1	67.0	**139**	106.6	269.7	**40**	4

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 3 OF DECEMBER 2005

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	25.3	17.3	27.8	15.5	1.3	88
BOLERO	30.7	19.4	33.8	18.1	1.2	67
CHICHIRI	28.7	20.7	29.0	17.0	1.0	86
CHILEKA	28.7	21.0	31.3	19.5	2.3	81
NTAJA	33.6	23.6	34.2	18.4	2.2	82
CHITEDZE	25.0	19.0	30.2	17.5	0.8	75
CHITIPA	28.2	18.7	N/A	N/A	2.5	68
KASUNGU	28.6	19.7	31.4	18.5	2.0	73
KARONGA	31.6	23.4	25.3	21.0	1.7	68
K I A	27.0	18.4	29.9	16.8	1.5	79
MIMOSA	33.4	22.1	34.5	19.3	1.9	94
MONKEY BAY	30.9	23.4	34.3	21.2	2.3	72
MZIMBA	28.6	18.7	31.6	16.9	0.8	67
MZUZU	27.0	17.0	30.2	15.3	1.8	74
NGABU	31.7	23.9	35.7	22.0	1.9	78
NKHATA BAY	31.3	21.4	35.3	20.3	N/A	77
NKHOTA KOTA	30.9	25.5	33.6	20.8	2.2	71
SALIMA	31.4	23.5	33.9	21.0	2.7	69

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