10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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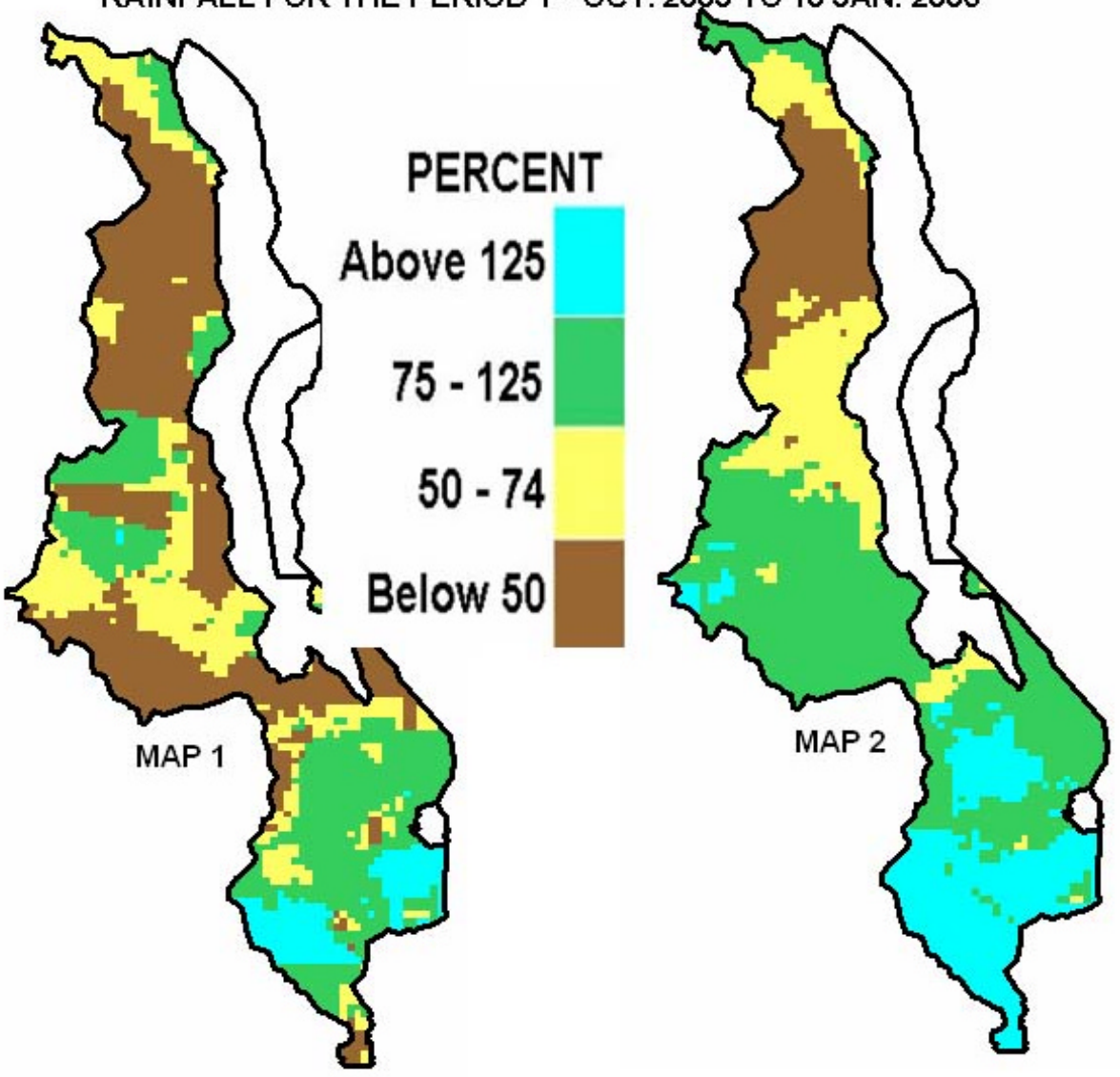
HIGHLIGHTS

- **Heavy rains experienced over southern and central Malawi…**
- **More floods reported in Salima and Mangochi…**
- **Widespread rains to continue during 11 to 20 January 2006…**

MAP 1: 10-DAY RAINFALL FOR 01 – 10 JANUARY 2006 AS PERCENTAGE OF NORMAL RAINFALL

MAP 2: TOTAL RAINFALL TO DATE AS PERCENTAGE NORMAL RAINFALL FOR THE PERIOD 1st OCT. 2005 TO 10 JAN. 2006



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. WEATHER SUMMARY

1.1 RAINFALL

Widespread and locally heavy rains were observed over Malawi during the first ten days of January 2005 due to the influence of both the moist and unstable Congo airmass and the Inter Tropical Convergence Zone (ITCZ), which are the main rain bearing systems for Malawi. As a result, there was a further significant improvement in rainfall distribution and amounts. Significantly high rainfall amounts were recorded in areas around Mulanje Boma (353 mm), Naminjiwa (241 mm), Nchalo (191 mm), Chiradzulu (180 mm) Bvumbwe (175 mm) Ntaja (160 mm) in the southern region while Salima, Kaluluma and Mwimba in the central region and Nkhata Bay, Karonga and Vinthukutu in the Northern Region also reported relatively high amounts. These amounts were much above the dekadal (10-day) normal for these stations. For instance, Nchalo received above normal rainfall amounts of 377% as the highest. Naminjiwa had 338% well above normal, and Mulanje Boma 326%. See Table 1 and Map 1.
Cumulative rainfall from October 2005 to 10 January 2006, expressed as a percentage of normal rainfall, indicates that most parts of southern and central Malawi had received between 75 and 125% of the expected rainfall amounts with a few areas mainly in the southern region registering above 125% of the expected amounts. However, a significant part of the Northern region had received below normal rainfall by the end of the period under review. See Table 1 and Map 2.

. MEAN AIR TEMPERATURE

During the first dekad of January 2005, mean air temperatures over Malawi were generally warm to hot. The mean maximum temperatures ranged between 26 and 33°C. Lower temperatures were mainly reported over highlands. The lowest maximum was reported at Kamuzu International Airport (KIA) (26°C) while Ngabu recorded the highest (33°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 0.5 to 2.2 m/s (1.8 to 9.4 Km/hr). The lowest wind speed was reported at Chichiri while the highest was registered at Chileka. See Table 2.

. MEAN RELATIVE HUMIDITY

The daily average relative humidity values over Malawi ranged from 67 to 84%. 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 Central and Southern regions while the situation in the north is still not favourable as most of the areas have received cumulative rainfall below the expected amounts. The heavy rains that were received in some areas particularly in the south and centre, caused soil water logging and apart from floods that were experienced in Chikwawa and Nsanje districts the previous dekad, additional floods were reported Salima and Mangochi. Considerable hectarage of cropped land were reported washed away, some farming families were rendered homeless in the process. Reports indicated that farmers needed assistance with maize seed to replant when the waters recede. Meanwhile, in the affected areas, communication by road was still difficult due to road destruction by the floods.
Crops were reported doing well in most parts of the country. However, an outbreak of army worms ha been reported in some districts such as Salima, Karonga and Ntchisi. Nevertheless, there are still high prospects of good harvests this season if good rains continue up to the end of the cropping season. Already in some parts of the south and the centre early planted hybrid maize is at tasseling and cobbing stage while in the north the main rainfall season has just started and crops range from planting and germination stages. Normally in the north planting of crops extends into January and early February.

. FORECAST FOR – JANUARY

Meanwhile, the moist and unstable Congo air and the ITCZ are expected to remain active over Malawi. Therefore, widespread rains that will be locally heavy are anticipated to continue during the period 11 – 20 January 2006.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 1 OF JANUARY 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
Bvumbwe Met.	175.2	77.4	**226**	635.7	423.1	**150**	5
Chancellor College	80.7	107.0	**75**	430.4	548.9	**78**	7
Chichiri Met.	137.8	76.7	**180**	481.3	429.5	**112**	6
Chileka Airport	105.3	68.3	**154**	411.3	370.2	**111**	7
Chiradzulu Agric	180.1	84.5	**213**	545.1	428.1	**127**	6
Kasinthula Res. Stn.	115.5	62.9	**184**	534.3	291.5	**183**	6
Liwonde Township	115.0	60.1	**191**	341.9	296.9	**115**	6
Mangochi Met.	78.3	60.5	**129**	246.1	311.5	**79**	5
Monkey Bay Met.	16.4	64.9	**25**	148.3	357.2	**42**	5
Mulanje Boma	353.1	108.4	**326**	1097.6	632.5	**174**	5
Mwanza Boma	122.8	72.1	**170**	475.9	397.0	**120**	4
Namiasi Agric	43.5	50.2	**87**	212.6	281.4	**76**	3
Naminjiwa Agric	240.9	71.3	**338**	459.3	403.5	**114**	6
Namwera Agric	78.3	84.4	**93**	371.8	408.4	**91**	6
Nchalo Sucoma	191.0	50.6	**377**	497.7	276.2	**180**	4
Ngabu Met.	112.2	60.8	**185**	484.8	326.6	**148**	4
Nsanje Boma	41.9	56.7	**74**	411.2	350.8	**117**	2
Ntaja Met.	160.5	69.9	**230**	302.0	346.5	**87**	7
Satemwa Tea Est. No.1	69.4	89.5	**78**	441.0	522.4	**84**	4
Toleza Farm	128.6	62.5	**206**	376.0	325.4	**116**	6
Thyolo Boma	110.1	82.5	**133**	662.3	458.5	**144**	4
CENTRAL REGION							
Chitedze Met.	52.8	77.6	**68**	254.3	369.8	**69**	4
Dwangwa Sugar Corp.	35.3	79.4	**44**	262.3	419.8	**62**	7
Kaluluma DTC	121.9	59.1	**206**	187.5	307.1	**61**	4
K.I.A Met	72.9	65.7	**111**	269.5	304.7	**88**	6
Kasungu Met	42.7	68.3	**63**	185.5	334.7	**55**	5
Lifuwu	88.5	64.7	**137**	291.1	369.9	**79**	6
Mlangeni Njolomole	95.0	84.7	**112**	300.3	374.7	**80**	5
Mwimba Research	105.8	49.6	**213**	327.0	332.2	**98**	5
Natural Res. College	43.1	87.2	**49**	115.2	343.6	**34**	4
Ntcheu - Nkhande	57.8	92.9	**62**	342.7	424.3	**81**	8
Ntchisi Boma	20.5	76.1	**27**	173.7	317.2	**55**	2
Salima Met	158.3	101.2	**156**	343.3	396.9	**86**	7
Dedza RTC	66.8	75.4	**89**	308.8	346.9	**89**	7
NORTHERN REGION							
Bolero Met	25.3	66.9	**38**	60.6	311.3	**19**	6
Bwengu Agric.	43.2	65.6	**66**	43.2	322.0	**N/A**	3
Chitipa Met	76.9	76.7	**100**	242.6	380.2	**64**	9
Karonga Met.	124.1	66.1	**188**	296.5	308.7	**96**	7
Mzimba Met	43.6	89.4	**49**	174.6	351.7	**50**	7
Mzuzu Met.	39.0	67.4	**58**	188.7	429.7	**44**	8
NkhataBay Met.	151.1	61.4	**246**	294.8	599.4	**49**	8
Vinthukutu Agric	120.3	83.4	**144**	226.9	353.1	**64**	6

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 1 OF JANUARY 2006

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	26.4	17.1	27.8	15.5	1.5	84
BOLERO	30.5	19.3	32.0	17.6	1.2	67
CHICHIRI	27.0	18.6	28.1	17.0	0.5	80
CHILEKA	28.3	20.7	30.2	19.4	2.6	81
NTAJA	29.0	21.5	31.4	20.6	1.3	83
CHITEDZE	27.3	18.8	30.0	17.1	0.7	79
CHITIPA	26.9	18.0	28.4	17.1	2.2	78
KASUNGU	27.7	19.0	29.8	17.9	1.8	77
KARONGA	30.5	19.7	31.4	23.3	0.4	74
K I A	26.1	18.2	28.3	16.8	1.4	80
MANGOCHI	30.9	22.7	33.1	21.5	1.4	77
MONKEY BAY	29.7	23.1	32.0	21.5	1.7	77
MZIMBA	27.7	17.9	29.0	17.0	0.7	74
MZUZU	26.7	17.9	28.2	16.9	1.7	78
NGABU	33.1	23.8	35.5	23.0	1.5	71
NKHATA BAY	30.7	21.0	31.8	20.0	N/A	79
SALIMA	29.1	21.8	31.2	20.2	1.7	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