10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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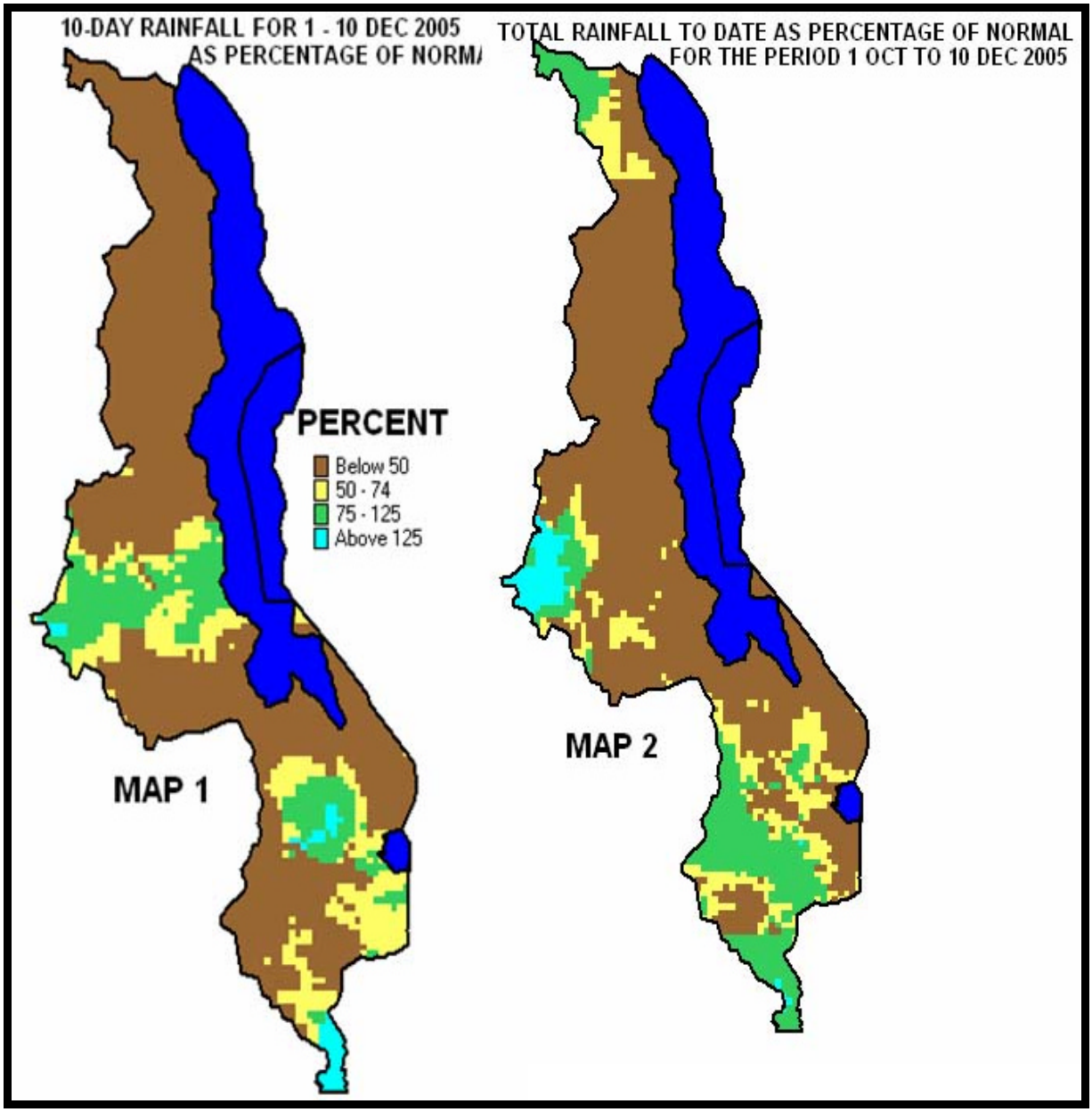
HIGHLIGHTS

- **Reduced rainfall with poor distribution experienced…**
- **Land preparation and weeding were major activities…**
- **Rainfall distribution to improve during 11 to 20 December 2005…**



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. WEATHER SUMMARY

1.1 RAINFALL

In the first ten-days of December 2005, Malawi was under a broad trough as the main rain belt shifted southwards. As a result most areas experienced generally reduced rainfall amounts with poor distribution. During the period under review very few areas reported above normal rainfall amounts. These areas included Ngabu (204%) and Liwonde Township (132%) in the south and Mchinji (114%) and Ntchisi Boma (111%) in the centre. See Table 1 and Map 1.

Map 2 shows cumulative rainfall for the period 1st October to 10 December 2005 expressed as a percentage of normal rainfall. From the map significant rains have been received over some parts the south and Mchinji in the centre and Chitipa in the north. See Table 1 and Map 2.

. MEAN AIR TEMPERATURE

Temperatures over Malawi were mostly hot during the period. Most areas reported mean maximum temperatures of between 28 and 35°C. Lower temperatures were only reported at Bvumbwe, Chitedze and Mzimba. Ngabu continued to report the highest absolute temperature (41°C) and lowest absolute temperature was reported at Mzuzu (13°C). See Table 2.

. MEAN DAILY WIND SPEEDS

Daily wind speeds measured at a height of 2 meters above the ground were in the range of 0.9 to 3.0 m/s (3.2 Km/hr to 10.8 Km/hr). See Table 2. The highest wind speed was reported at Mangochi (3.0m/s or 10.8 Km/hr) with the lowest at Chichiri (0.9 m/s or 3.2 Km/hr).

. MEAN RELATIVE HUMIDITY

The daily average relative humidity values over Malawi showed an improvement compared to the previous 10-day period. Daily average values ranged from 45% at Chitipa and Nkhata Bay to 74% at Bvumbwe. The north was relatively drier than the other parts of the country. See Table 2.

. AGROMETEOROLOGICAL ASSESSMENT

Good rainfall was confined to a few areas. As a result major agricultural activities were weeding and land preparation continued in areas where sufficient rains for planting crops have not yet been received. Dry conditions hindered basal fertiliser application while in some areas poor seed germination has been experienced due to lack of enough soil moisture. In the south and some parts of the centre where sufficient rains have been received maize is at various stages of development ranging from germination to early vegetative stage. To achieve good yields, agricultural extension officers should encourage farmers to adhere to principles of good crop husbandry. Good crop husbandry practices include early land preparation, use of improved seed, timely planting, implementation of proper plant population and spacing, control of weeds, pests and diseases and timely fertiliser application. The rains have improved pasture availability in all communal grazing areas.

. FORECAST FOR – DECEMBER

The Inter Tropical Convergence Zone (ITCZ) which is one of the main rainfall systems for Malawi is anticipated to get established over the country. Therefore wet weather is expected over most areas during the period 11 to 20 December 2005.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 1 OF DECEMBER 2005: PERIOD 1 - 10

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	**DEKADAL TOTAL AS % NORMAL**	TOTAL TO DATE	NORMAL TO DATE	**TOTAL TO DATE AS % NORMAL**	RAINY DAYS
SOUTHERN REGION	mm	mm		mm	mm		[3] **0.3 mm**
Bvumbwe Met.	27.3	86.0	32	198.3	214.6	92	5
Chancellor College	62.9	117.8	53	97.3	245.4	40	5
Chichiri Met.	40.0	80.1	50	121.9	222.2	55	5
Chileka Airport	11.0	55.7	20	168.5	179.8	94	3
Chiradzulu Agric	29.3	58.2	50	182.7	174.2	105	4
Kasinthula Res. Stn.	5.3	48.9	11	100.4	129.3	78	2
Liwonde Township	67.1	50.7	132	107.0	124.0	86	4
Lujeri Tea Estate	49.7	109.9	45	125.2	426.1	29	6
Mangochi Met.	11.0	53.6	21	34.3	131.6	26	4
Monkey Bay Met.	12.5	67.0	19	17.8	114.0	16	2
Mulanje Boma	80.7	93.5	86	269.5	341.1	79	4
Mwanza Boma	18.3	63.7	29	120.9	186.5	65	3
Namiasi Agric	22.2	61.9	36	50.1	109.6	46	2
Namwera Agric	22.0	71.9	31	28.5	168.6	17	2
Nchalo Sucoma	27.9	57.9	48	41.6	134.9	31	3
Ngabu Met.	31.1	63.9	49	126.5	152.6	83	2
Nsanje Boma	98.0	48.1	204	160.5	171.7	93	2
Ntaja Met.	12.5	67.9	18	47.3	149.4	32	3
Satemwa Tea Est. No.1	15.3	98.9	15	124.5	267.0	47	4
Thyolo Boma	6.1	76.0	8	172.1	198.3	87	2
Thyolo Met	29.5	80.4	37	107.9	223.6	48	4
Zomba RTC	29.3	93.1	31	146.0	221.5	66	4
CENTRAL REGION							
Chitedze Met.	6.3	62.4	10	68.2	153.8	44	3
Dwangwa Sugar Corp.	4.9	81.9	6	81.9	181.5	45	2
Kaluluma DTC	0.0	68.3	0	19.0	108.6	17	0
K.I.A. Met.	32.0	48.5	66	47.0	117.4	40	4
Kasungu Met	8.4	53.6	16	9.9	130.8	8	3
Madisi Admarc	44.0	45.9	96	46.7	104.0	45	1
Mchinji Boma	70.2	61.4	114	251.3	170.8	147	3
Mlangeni Njolomole	20.8	56.6	37	89.0	148.7	60	3
Ntcheu - Nkhande	24.1	72.2	33	95.7	162.8	59	4
Ntchisi Boma	54.5	49.0	111	54.5	98.9	55	1
NORTHERN REGION							
Bolero Met.	0.7	43.8	2	5.4	128.7	4	1
Chikangawa Forest	11.7	66.6	18	27.6	162.7	17	2
Chitipa Met.	7.8	51.2	15	107.3	133.1	81	1
Euthini Agric.	0.5	54.0	1	9.0	113.4	8	1
Karonga Met.	0.9	39.1	2	5.9	85.9	7	1
Mzimba Met	14.5	59.0	25	43.1	119.4	36	2
Mzuzu Met.	2.0	59.2	3	8.9	197.1	5	1
Nkhata Bay Met.	0.0	75.8	0	23.6	358.7	7	0

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 1 OF DECEMBER 2005

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	27.4	17.2	31.6	15.9	1.7	74
BOLERO	34.1	20.2	35.7	18.6	1.7	45
CHICHIRI	28.5	18.9	31.7	17.5	0.9	69
CHILEKA	30.8	21.2	34.3	18.6	2.9	68
CHIKWEO	32.7	22.7	36.2	19.4	2.6	63
CHITEDZE	27.3	19.3	32.5	18.5	1.0	62
CHITIPA	31.0	17.4	32.2	16.0	2.4	45
KASUNGU	31.5	20.0	N/A	N/A	2.7	52
KARONGA	34.7	24.1	35.4	23.0	N/A	46
K I A	30.1	18.5	32.2	16.6	1.8	61
MANGOCHI	34.4	23.6	37.5	20.7	3.0	56
MONKEY BAY	34.0	24.5	36.9	21.2	2.5	55
MZIMBA	27.5	18.7	32.8	16.9	1.2	50
MZUZU	30.5	16.5	31.8	13.9	2.1	53
NGABU	35.4	24.3	40.9	21.9	2.6	57
NKHATA BAY	35.3	21.6	37.6	20.0	N/A	58

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