10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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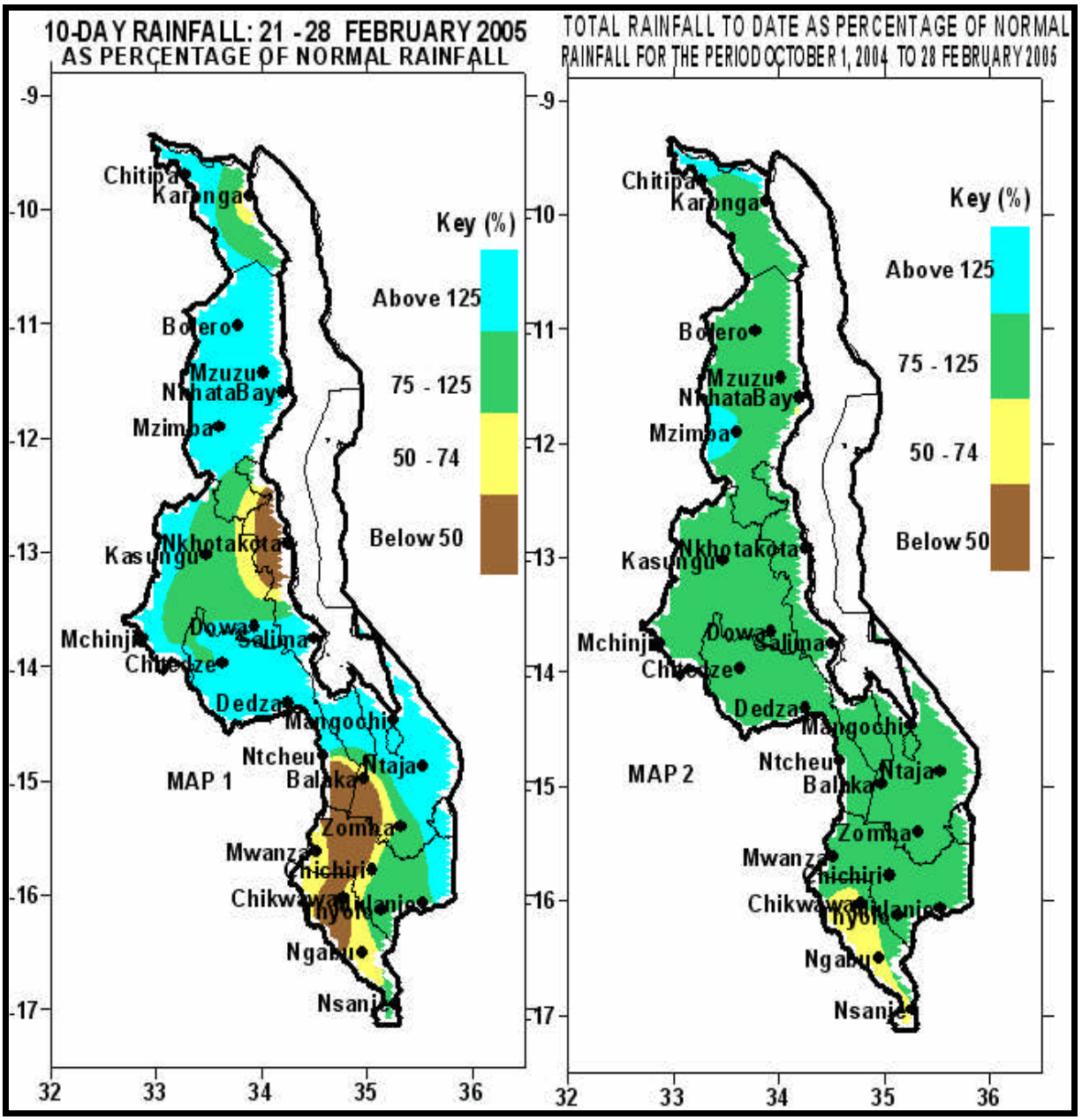
HIGHLIGHTS

- **Moderate to heavy rains experienced during the period…**
- **Dry reduces the expected maize yield…**
- **Rains expected over the north during 1 - 10 March 2005…**



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. WEATHER SUMMARY

1.1 RAINFALL

Malawi continued to be under the influence of High Pressure Cell that prolonged dry conditions which started end of January 2005 over many parts of the country until the last three days of February when Congo Air brought rainfall to most parts of country breaking the widespread prolonged dry spell. This resulted in a number of places recording total rainfall amounts of more than 50mm. Most areas started receiving the rains from 26th February bringing respite from the unusual hot and dry conditions.

Areas that recorded significant rainfall totals above 150mm during the last 8-days of February include Ntaja Met (199.9mm and Lujeri (157mm), Dedza RTC (155.3mm), Salima Met (163.3mm) and Lifuwu (165.2mm). Significant rainfall totals as percentage of normal were as follows: Dedza RTC (367%), Ntaja Met (358%), Monkey Bay (289%), Mzuzu (271%), Mlangeni Njolomole (265%), NRC (224%), Salima and Mzimba (204%) and Chitipa (203%). See Map 1 and Table 1.

Total seasonal rainfall from 1st October 2004 up to 28 February 2005 showed that most areas in Malawi have received normal rainfall despite the prolonged dry spell that has been experienced. This is due to the abundant rains that were received in November, December and early January. However, pockets of below normal rainfall exist in lower Shire Valley in the south while above normal rainfall situation exist at Mzimba, Karonga and Chitpa in the north. Areas that have received much below normal cumulative rainfall include Nkhata bay (58%) in the north and Chikwawa (64%) in Shire Valley. **Map 2 and Table 1.**

[Note: Normal = 75 – 125%, above normal = ? 125%, below normal = ? 75%, extremely below normal = ? 50%]

. MEAN AIR TEMPERATURE

Mean maximum temperatures demonstrate that hot weather continued over most pasts of Malawi during the last 8-days of February 2005. Daily average maximum temperatures were in lower 30s over lakeshore and in Shire Valley and upper 20s elsewhere. The highest absolute maximum air temperature was recorded at Salima (36.0°C) while the lowest absolute minimum temperature was reported at Bvumbwe, 15.6°C.

. MEAN DAILY WIND SPEEDS

Mean daily wind speeds at a height of 2 meters above ground continued to be light and variable. The values ranged from 0.7m/s (1.8km/hr) at Chichiri in Blantyre to 1.4m/s (14.0km/hr) at Chitipa, Mzuzu and Salima. See Table 2 for more details.

. MEAN RELATIVE HUMIDITY

The last 8-days of February 2005 became fairly moist particularly in the last three days when wet weather returned to most areas of Malawi. Mean daily relative humidity values ranged from 65% at Chitipa to 82% at Nkhata Bay. The average value during the period 21 to 28 February was 74%.

. AGROMETEOROLOGICAL ASSESSMENT

The rains received in the last 8-days of February will not improve the current crop situation. Most crops have been scorched by the dry spell that occurred for more than one month in most parts of the country particularly over the south and some parts of the centre. The situation is worse along Shire river valley from Mangochi through Balaka to Chikwawa and Nsanje districts where due high temperatures and long sunshine hours some crops reached permanent wilting point and will not recover with these rains. Crops that have suffered most include maize, tobacco, beans and groundnuts. The dry spell has affected this year's maize yield, initially estimated at 1.7 million tonnes. The dry spell came at a time when most of the maize was at the critical stage of tasselling and cobbing which requires a lot of moisture. Due to prolonged dry spell some farmers might not harvest anything and this will have implications in food security during the coming consumption period (April 2005 – March 2006).

. FORECAST FOR – MARCH

Meanwhile weather systems indicate that pulses of Congo Air will maintain light to moderate rainfall over the north and some parts of centre while dry weather is expected over most parts of the south during the first 10-days of March 2005.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3 OF FEBRUARY 2005: PERIOD 21 – 28

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**
Balaka Township	19.2	43.4	44	519.1	657.6	79	2
Bvumbwe Met.	40.4	52.0	78	720.3	800.9	90	2
Chancellor College	57.6	79.3	73	1015.7	1017.1	100	6
Chichiri Met.	54.9	50.7	108	839.8	810.3	104	4
Chikwawa Boma	16.5	37.2	44	365.4	567.9	64	2
Chileka Airport	4.0	44.7	9	494.5	683.1	72	1
Kasinthula Res. Stn.	42.8	41.4	103	489.8	529.2	93	2
Liwonde Township	46.6	54.8	85	668.1	646.2	103	3
Lujeri Tea Estate	157.0	110.3	142	1067.8	1451.5	74	6
Makoka Met	50.6	67.4	75	803.3	767.8	105	4
Mangochi Met.	86.8	45.5	191	659.9	645.7	102	5
Mimosa Met.	66.3	60.3	110	845.7	998.8	85	5
Monkey Bay Met.	121.5	42.0	289	810.6	791.2	102	5
Mulanje Boma	76.0	85.8	89	967.5	1114.9	87	2
Mwanza Boma	39.5	54.1	73	747.1	758.5	98	2
Naminjiwa Agric	64.3	49.7	129	742.7	765.6	97	5
Nchalo Sucoma	22.9	39.4	58	384.7	531.6	72	3
Ngabu Met.	24.9	44.7	56	429.5	592.9	72	4
Ntaja Met.	199.9	55.9	358	720.2	685.1	105	6
Satemwa Tea Est. No.1	54.7	55.8	98	953.8	909.8	105	3
Toleza Farm	24.9	42.0	59	636.9	655.6	97	2
Thyolo Boma	57.0	52.6	108	650.5	833.9	78	3
Thyolo Met	55.2	42.8	129	905.4	828.1	109	3
CENTRAL REGION							
Chitedze Met.	78.3	58.4	134	764.4	709.5	108	5
Dowa Agric	75.9	58.9	129	703.5	679.3	104	7
Dwangwa Sugar Corp.	22.5	68.9	33	588.2	800.3	73	4
L.I.A. Met.	91.8	49.6	185	832.8	655.0	127	5
Kasungu Met	68.0	58.9	115	808.7	706.7	114	3
Lifuwu	165.2	86.2	192	1087.6	931.7	117	4
Mlangeni Njolomole	126.1	47.6	265	917.3	768.7	119	7
Natural Res. College	105.0	46.8	224	887.3	670.7	132	5
Ntcheu - Nkhande	33.8	63.5	53	968.4	841.6	115	4
Ntchisi Boma	21.2	62.8	34	708.7	679.7	104	1
Salima Met	163.3	80.0	204	858.9	911.7	94	5
Dedza RTC	155.3	42.3	367	762.5	764.7	100	6
NORTHERN REGION							
Baka Res. Stn.	17.4	54.6	32	463.1	615.5	75	1
Chitipa Met	102.6	50.6	203	919.4	731.2	126	5
Karonga Met.	33.7	60.3	56	848.3	586.3	145	4
Mzimba Met	102.0	50.1	204	891.4	676.5	132	4
Mzuzu Met.	140.6	51.8	271	770.4	746.9	103	5
NkhataBay Met.	35.8	24.6	146	557.1	954.0	58	5

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 3 OF FEBRUARY 2005

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	28.9	15.8	30.5	15.9	1.2	70
CHICHIRI	28.1	19.7	31.0	19.0	0.7	71
CHILEKA	27.7	21.7	33.6	20.8	1.0	71
NTAJA	31.3	21.9	34.0	21.5	1.1	72
CHITEDZE	28.7	19.1	31.5	18.5	0.4	74
CHITIPA	29.3	18.6	30.7	17.7	1.4	65
KASUNGU	29.2	19.6	32.2	18.9	1.2	74
KARONGA	31.9	23.4	33.7	20.5	1.1	74
K I A	28.8	18.1	31.3	17.2	1.2	74
MAKOKA	29.0	19.3	31.5	18.4	1.1	76
MANGOCHI	34.1	22.8	36.0	22.1	1.3	71
MIMOSA	32.0	19.6	34.6	17.2	0.9	76
MONKEY BAY	31.4	22.9	34.2	21.8	1.3	76
MZIMBA	27.9	18.2	30.5	17.1	0.7	74
MZUZU	27.7	17.9	29.8	16.1	1.4	81
NKHATA BAY	31.3	21.8	33.6	20.4	1.0	82
SALIMA	31.2	21.8	34.6	20.7	1.4	76
THYOLO	29.7	19.4	31.9	17.3	0.9	74

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 f or 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