10-Day Rainfall & Agromet Bulletin

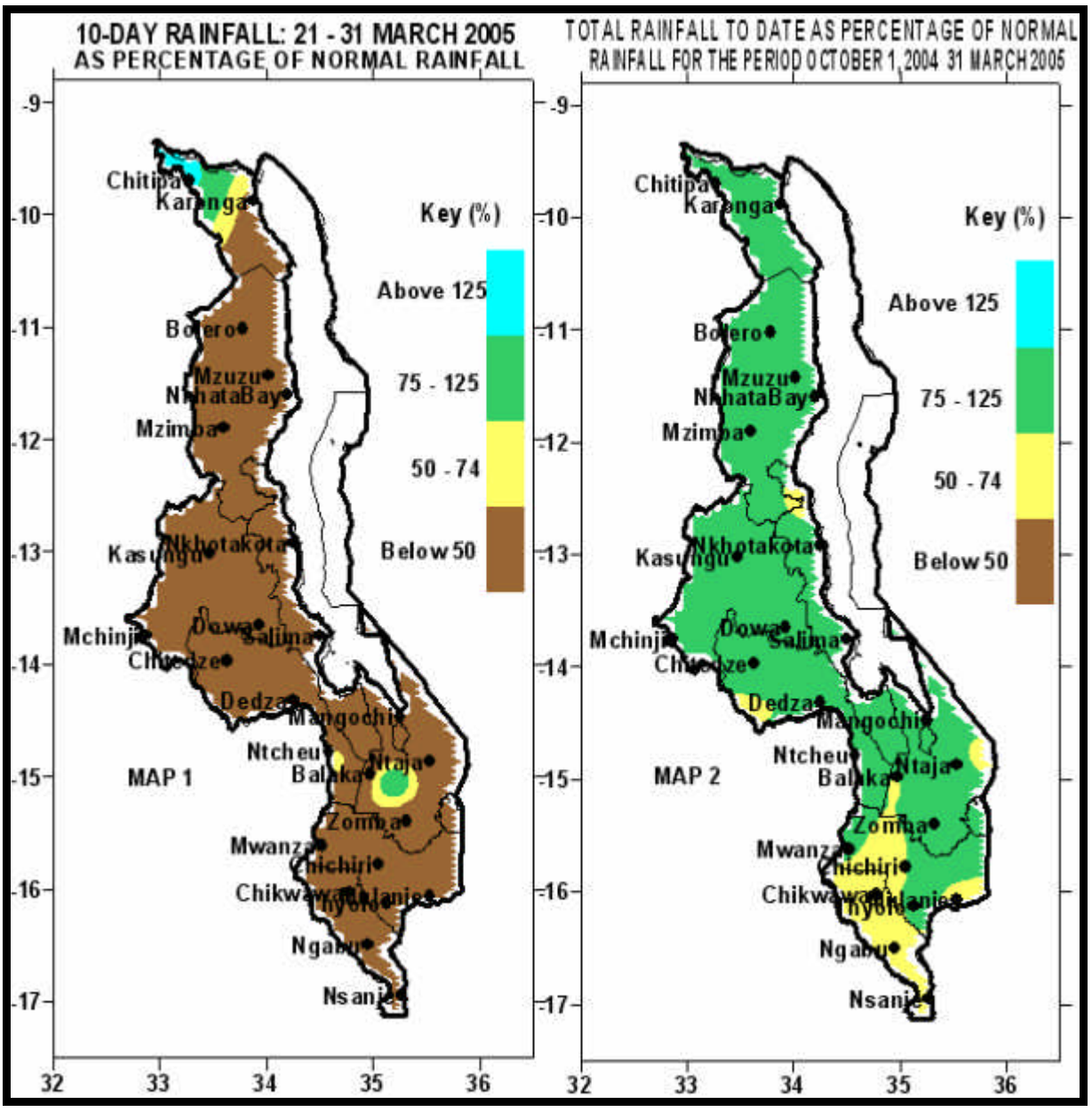
Department of Meteorological Services

Period: 21 – 31 March 2005 Season: 2004/2005 Issue No.18

Release date: 8 April 2005

HIGHLIGHTS

- **Dry conditions experienced in most parts of the country…**
- **National maize production for 2004/05 in 2nd round drops by 24 % …**
- **Dry weather to continue in most parts during 1 – 10 April 2005…**



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. WEATHER SUMMARY

1.1 RAINFALL

During the period 21 to 31 March 2005, Malawi was mostly under the influence of a ridge of high pressure from the south. As a result dry weather was experienced in most parts of the country. 10-day rainfall totals indicate that significant rains were only experienced at Liwonde Township 46.6mm (125%) in the south and Chitipa Met 71.4mm (141%) in the north. However, at both places the distribution of the rains in both time and space was poor. Only maximum of three rainy days were reported during the entire period. Other areas which had registered fairly good rainfall amounts during the period under review included Ntcheu Nkhande in the centre 34.2mm (81%) and Dowa Agriculture 32.0mm (62%).

Total seasonal rainfall from 1st October 2004 up to end of March 2005 showed that most areas in Malawi have received normal rainfall despite the prolonged dry spell and early termination of the main rains. This is due to the heavy and continuous rains that were received from end of November through December and early January. Pockets of below normal rainfall however still existed in the south particularly in Chikwawa and Nsanje districts in lower Shire Valley and some parts of Blantyre, Mwanza, Phalombe, Mulanje and Balaka districts. **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 showed that unusually hot weather continued over most pasts of Malawi during the last of March 2005. The hottest place continued to be lower shire valley where Ngabu Met registered the highest absolute maximum air temperature of 39.0°C while the coldest place was over Mzuzu and Kamuzu International Airport where the lowest temperature hit 13.5°C mark. High daytime temperatures were due to clear skies which resulted in longer sunshine hours.

. MEAN DAILY WIND SPEEDS

Mean daily wind speeds at a height of 2 meters above ground continued to be generally light. The average values ranged from 0.3m/s (1.1km/hr) at Bolero to 2.1m/s (7.6km/hr) at Ngabu. See Table 2 for more details.

. MEAN RELATIVE HUMIDITY

Mean Relative Humidity values during the period ranged from 63% to 77% countrywide giving a 10-day national average of 71%. Higher values were reported at Mzuzu, Nkhata Bay, Karonga, Kamuzu International Airport (KIA), Ntaja and Thyolo (77%). Salima with a 10-day average of 59% was the driest place.

. AGROMETEOROLOGICAL ASSESSMENT

In the last days of March 2005 dry weather prevailed in most parts of the country. This facilitated harvesting of various matured crops. On the other hand however, the dry conditions will have negative implications on winter cropping season. Most Dambos might not have enough residual soil moisture to support winter cropping. This may reduce the projected winter production and hectarage figures for various crops. According to 2004/05 growing season 2nd round crop production estimates released on 1st April 2005 winter maize production is estimated to account for 21% of the total maize production for this season. In 2nd round crop production estimates maize production was estimated at 1,306,983 metric tonnes which is drop of 24% from 1st round estimates of 1,724,391 metric tonnes. The drop is mainly due to the dry spell that lasted for more than one month in most parts of the country particularly over the south and some parts of the centre. The situation was slightly better in the north though localised areas were also hit by the dry spell. The worst affected districts in the south include Balaka, Mangochi, Machinga, Nsanje, Mwanza, Neno, Chikwawa and Phalombe. Worst hit among the central districts are Dedza, Ntcheu, Mchinji, Salima, Dowa and Nkhotakota. In the north Rumphi west, Karonga (central part) and the southern part of Nkhata Bay and Mzimba districts.

Meanwhile, harvesting of maize that survived the dry spell is underway in the south and some parts of the centre

Climatologically end of March marks the end of the main rainfall season over southern Malawi. In the current season most areas in the south have experienced sudden withdrawal of the main rains. This has significantly shortened the length of the growing season, thereby affecting growth and development of most crops.

. FORECAST FOR – APRIL

Medium range weather systems indicate that Malawi will be mostly under the influence of ridge of high pressure from the south. This will reduce vertical cloud development over the country. Therefore, dry weather will persist over most parts of the country during the first 10-days of April 2005.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3 OF MARCH 2005: PERIOD 21 – 31

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.	0.0	50.2	**0**	727.1	987.4	**74**	0
Chancellor College	1.5	82.9	**2**	1017.2	1315.8	**77**	1
Chichiri Met.	1.5	51.5	**3**	846.0	1003.6	**84**	1
Chikwawa Boma	0.0	26.0	**0**	403.8	688.6	**59**	0
Chileka Airport	0.0	40.9	**0**	494.5	834.1	**59**	0
Kasinthula Res. Stn.	0.0	21.2	**0**	491.2	667.2	**74**	0
Liwonde Township	46.6	37.2	**125**	742.7	792.0	**94**	3
Lujeri Tea Estate	0.0	131.2	**0**	1171.7	1744.0	**67**	0
Makoka Met	0.3	38.7	**1**	803.6	943.8	**85**	1
Mangochi Met.	0.0	37.5	**0**	665.2	789.7	**84**	0
Mimosa Met.	0.0	78.0	**0**	906.6	1288.9	**70**	0
Monkey Bay Met.	0.0	28.0	**0**	810.9	898.4	**90**	0
Mulanje Boma	2.0	105.4	**2**	988.3	1438.5	**69**	1
Mwanza Boma	0.0	42.7	**0**	750.6	929.5	**81**	0
Nchalo Illovo	0.0	22.4	**0**	394.7	630.4	**63**	0
Ngabu Met.	1.7	35.5	**5**	445.6	721.7	**62**	1
Ntaja Met.	0.0	52.3	**0**	725.8	839.1	**86**	0
Satemwa Tea Est. No.1	1.6	63.9	**3**	986.7	1165.3	**85**	1
Toleza Farm	0.0	30.8	**0**	636.9	795.0	**80**	0
Thyolo Met	10.3	56.0	**18**	972.2	1046.0	**93**	1
Zomba RTC	10.4	56.5	**18**	1137.9	1128.8	**101**	1
CENTRAL REGION							
Chitedze Met.	2.7	42.9	**6**	790.7	858.3	**92**	2
Dowa Agric	32.0	51.3	**62**	746.4	843.1	**89**	1
Dwangwa Sugar Corp.	29.3	160.4	**18**	738.5	1175.8	**63**	3
K.I.A. Met.	3.8	31.5	**12**	859.5	803.5	**107**	2
Kasungu Met	1.4	24.9	**6**	864.8	830.6	**104**	1
Mlangeni Njolomole	0.0	41.1	**0**	919.1	943.5	**97**	0
Natural Res. College	3.6	37.4	**10**	898.3	806.7	**111**	2
Nkhotakota Met	14.9	139.6	**11**	1115.1	1289.6	**86**	2
Ntcheu - Nkhande	34.2	42.0	**81**	1035.5	1011.2	**102**	3
Ntchisi Boma	6.2	43.7	**14**	761.6	821.1	**93**	1
Salima Met	0.0	65.1	**0**	858.9	1165.9	**74**	0
Dedza RTC	14.5	44.3	**33**	795.4	945.0	**84**	2
NORTHERN REGION							
Bolero Met	0.0	26.6	**0**	658.6	692.4	**95**	0
Chitipa Met	71.4	50.5	**141**	1070.6	922.7	**116**	3
Karonga Met.	29.5	116.6	**25**	1023.3	870.4	**118**	2
Mzimba Met	3.8	42.9	**9**	914.7	840.5	**109**	1
Mzuzu Met.	29.0	77.6	**37**	921.7	970.9	**95**	3
NkhataBay Met.	7.7	217.5	**4**	872.9	1313.9	**66**	3

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 3 OF MARCH 2005

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	30.9	16.3	31.2	13.4	1.4	75
BOLERO	29.2	16.5	29.9	14.9	0.3	73
CHICHIRI	30.8	19.1	31.0	14.5	0.9	74
CHILEKA	30.9	19.6	33.5	18.0	2.0	63
NTAJA	33.6	22.1	33.5	19.0	1.7	77
CHITEDZE	28.9	15.0	30.9	14.2	0.4	68
CHITIPA	27.6	17.7	29.0	21.9	1.4	76
KASUNGU	32.6	19.1	31.9	16.1	1.3	73
KARONGA	30.4	22.6	32.6	21.0	1.1	77
K I A	30.8	16.9	29.7	13.5	1.1	77
MAKOKA	29.4	16.6	32.4	14.5	1.0	67
MANGOCHI	32.9	21.1	35.8	20.2	1.4	63
MONKEY BAY	31.7	22.4	33.3	21.0	1.5	60
MZIMBA	28.1	17.5	29.7	14.7	0.6	72
MZUZU	26.7	15.6	28.8	13.5	1.4	77
NGABU	35.5	23.1	39.0	21.5	2.1	65
NKHATA BAY	30.6	20.0	32.6	18.9	2.0	77
SALIMA	31.4	21.3	33.0	16.0	1.7	59
THYOLO	28.8	17.6	31.7	16.4	0.9	77

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