10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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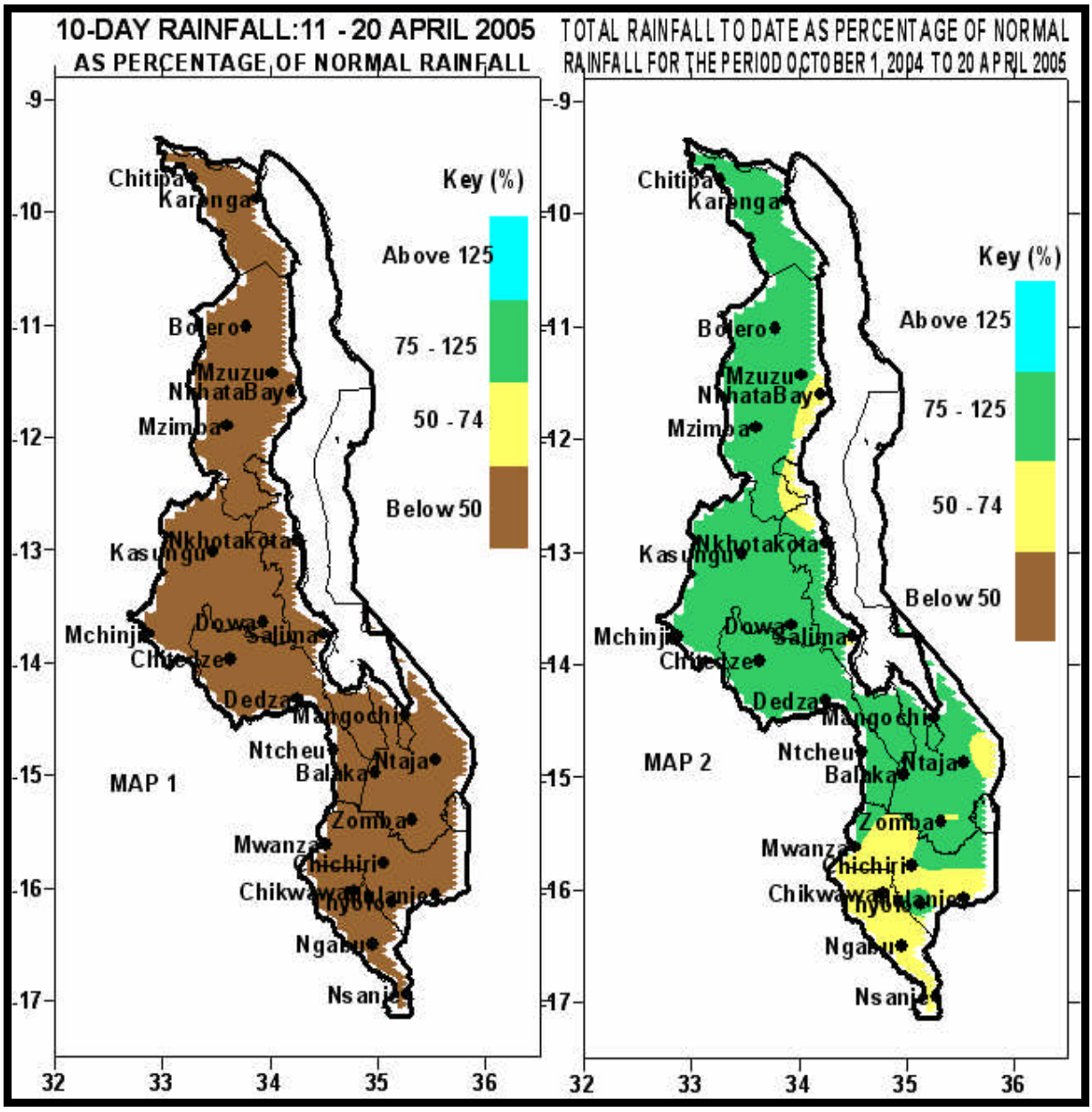
HIGHLIGHTS

- **Dry conditions persisted in most areas during 11 – 20 April…**
- **Persistent dry conditions to negatively affect winter production …**
- **Dry weather to persist in most parts during 21 – 30 April 2005…**



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. WEATHER SUMMARY

1.1 RAINFALL

During the second 10-days of April 2005, a ridge of high pressure from the south intensified over Malawi and this suppresed the development of rain clouds. As a result the entire country was even drier than during the first 10-days of April 2005. Very few areas mainly over the centre and north received some drops of rain. These areas in the centre included Chitedze where 2.2mm was recorded, Natural Resources College 2.8mm and Dwangwa 2.0mm while in the north Karonga recorded 12.0mm, Nkhata Bay 11.4mm and Mzuzu 9.9mm. Most areas reported nil rainfall throughout the period indicating an early cessation of the main rainfall season. Normally the main rainfall season ends between end of April and early May. During the current season, however, many parts of Malawi have not received significant rains since end of January 2005.

10-day rainfall totals as a percentage of normal indicates dry conditions existed over Malawi.

Seasonal rainfall from 1st October 2004 up to 20th April 2005 on Map 2 and in Table 1 indicates that most areas of Malawi have received between 75 and 125% of the expected rainfall despite a prolonged dry spell since February. This was because the first half of the rainfall season was good with many areas registering normal to above normal rainfall. However, the cumulative rainfall map still indicates that below normal rainfall has been received in some parts of Malawi particularly in the south and some parts of lakeshore districts of Nkhotakota and Nkhata Bay. Areas that have received much below normal cumulative rainfall include Dwangwa (55%), Chikwawa (56%) in Shire Valley, Chileka Airport (57%) and Nkhata Bay (60%) in the north. (See **Map 2 and Table 1 for more details**.

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

. MEAN AIR TEMPERATURE

Mean maximum temperatures over the country indicated that hot temperatures continued in most pasts of Malawi during the second 10-days of April 2005. Observed mean maximum temperature ranged between 25ºC and 35ºC. Higher mean maximum temperatures above 30ºC were recorded in Shire valley and along the lakeshore. The highest extreme value of 38.2ºC was recorded at Ngabu.

. MEAN DAILY WIND SPEEDS

Mean daily wind speeds at a height of 2 meters above ground were generally light. The average values ranged from 0.5m/s (1.8km/hr) at Chitedze to 3.0m/s (10.8km/hr) at Chileka Airport. See Table 2 for more details.

. MEAN RELATIVE HUMIDITY

Mean Relative Humidity values during the period ranged from 53% at Chileka Airport in the south to 80% at Mzuzu in the north giving a 10-day national average of 64%.

. AGROMETEOROLOGICAL ASSESSMENT

Dry conditions experienced during the period uncer review were good for drying and harvesting of matured crops over the country. The harvesting of maize in the south and some parts of the centre is almost through while elsewhere the crop is at drying and harvesting stages.

There are two main factors that have affected summer crop production this season. These include fertilizer shortages during the early part of the season and severe dry spell leading to drought that has covered the greater part of southern half of Malawi.

As reported in our previous report, current persistent dry conditions will have negative impacts on the winter cropping season. Most river Dambos will not have enough residual soil moisture to support planting of most winter crops. This will eventually affect production and hectarage figures for various winter crops this season.

The districts that have been worst affected by the drought in the south include Nsanje and Chikwawa in lower Shire valley, Mwanza, Neno, Balaka, Mangochi, Machinga, Phalombe and some parts of Blantyre and Mulanje. 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 some parts Mzimba districts have also affected.

. FORECAST FOR – APRIL

The main rain belt is over East Africa and is expected to continue moving northwards. Meanwhile, fairly moist easterly airflow is expected to affect lakeshore areas and northern highlands. Therefore expect few rainshowers mainly over the north and along the northern half of the lakeshore while southern and central areas are expected to remain mostly dry as inland high over Transvaal region of South Africa continues suppressing cloud development in the region during the outlook period.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 2 OF APRIL 2005: PERIOD 11 – 20

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	26.1	**0**	727.3	1043.5	**70**	0
Chancellor College	0.0	26.2	**0**	1017.2	1380.0	**74**	0
Chichiri Met.	0.0	21.1	**0**	853.8	1053.7	**81**	0
Chikwawa Boma	0.0	13.6	**0**	403.8	722.8	**56**	0
Chileka Airport	0.0	16.9	**0**	495.4	874.6	**57**	0
Kasinthula Res. Stn.	0.0	12.4	**0**	491.2	697.7	**70**	0
Liwonde Township	0.0	12.5	**0**	742.7	821.7	**90**	0
Lujeri Tea Estate	0.0	70.2	**0**	1180.9	1920.7	**61**	0
Makoka Met	0.0	13.2	**0**	803.6	984.7	**82**	0
Mangochi Met.	0.0	9.2	**0**	665.2	817.3	**81**	0
Mimosa Met.	0.0	51.3	**0**	917.3	1401.9	**65**	0
Monkey Bay Met.	0.0	8.5	**0**	810.9	912.7	**89**	0
Mulanje Boma	0.0	63.0	**0**	989.3	1577.4	**63**	0
Mwanza Boma	0.0	18.9	**0**	750.6	974.3	**77**	0
Nchalo Sucoma	0.0	18.0	**0**	394.7	668.2	**59**	0
Ngabu Met.	0.0	17.4	**0**	450.5	755.3	**60**	0
Ntaja Met.	0.0	16.0	**0**	725.8	881.6	**82**	0
Toleza Farm	0.0	12.9	**0**	636.9	831.4	**77**	0
Thyolo Boma	0.0	32.3	**0**	673.0	1123.7	**60**	0
Thyolo Met	0.0	30.7	**0**	979.9	1119.9	**87**	0
Zomba RTC	0.0	22.2	**0**	1137.9	1190.7	**96**	0
CENTRAL REGION							
Chitedze Met.	2.2	14.9	**15**	793.5	897.0	**88**	1
Dedza Met	0.0	18.3	**0**	703.4	926.2	**76**	0
Dowa Agric	0.0	0.0	**0**	746.4	862.1	**87**	0
Dwangwa Sugar Corp.	2.0	74.6	**3**	740.5	1358.4	**55**	2
K.I.A. Met.	0.0	3.5	**0**	870.0	823.7	**106**	0
Mlangeni Njolomole	0.0	12.9	**0**	919.1	983.8	**93**	0
Natural Res. College	2.8	15.6	**18**	901.1	837.3	**108**	1
Nkhotakota Met	0.0	61.3	**0**	1115.1	1429.5	**78**	0
Ntcheu - Nkhande	0.0	19.2	**0**	1045.4	1050.4	**100**	0
Ntchisi Boma	0.0	17.0	**0**	767.8	862.2	**89**	0
Salima Met	0.0	38.6	**0**	860.1	1247.2	**69**	0
Dedza RTC	0.0	6.4	**0**	795.4	973.9	**82**	0
NORTHERN REGION							
Bolero Met	0.0	12.5	**0**	658.6	723.5	**91**	0
Chikangawa forest	0.0	39.9	**0**	926.4	1096.6	**84**	0
Chitipa Met	0.0	16.7	**0**	1078.5	970.2	**111**	0
Karonga Met.	12.0	69.2	**17**	1067.4	1015.7	**105**	3
Mzimba Met	0.0	14.8	**0**	928.4	874.9	**106**	0
Mzuzu Met.	9.9	67.0	**15**	932.8	1124.9	**83**	2
NkhataBay Met.	11.4	91.1	**13**	887.7	1490.8	**60**	3

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 2 OF APRIL 2005

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	27.5	12.7	20.5	11.2	1.6	74
BOLERO	28.8	15.9	30.7	13.9	1.4	71
CHILEKA	30.0	18.1	33.2	16.5	3.0	53
NTAJA	30.0	18.4	32.0	16.5	1.9	68
CHITEDZE	29.0	14.6	29.9	12.9	0.5	55
CHITIPA	27.1	17.6	28.7	15.6	3.1	70
DEDZA	25.0	14.4	26.5	12.0	1.2	58
KARONGA	30.2	21.9	32.2	20.8	2.1	72
K I A	28.1	13.1	28.9	10.9	1.5	62
MAKOKA	29.0	14.6	30.2	12.3	1.0	57
MANGOCHI	32.6	18.8	35.0	17.0	1.4	60
MIMOSA	31.0	14.6	33.3	11.8	1.3	64
MONKEY BAY	31.9	20.7	33.0	18.3	1.7	54
MZIMBA	27.9	16.4	29.7	14.4	1.0	64
MZUZU	25.0	14.2	26.8	11.4	1.6	80
NGABU	35.1	21.2	38.2	20.0	2.3	55
NKHATA BAY	29.8	18.7	32.4	16.3	2.0	74
SALIMA	30.1	20.2	32.0	18.0	1.9	59
THYOLO	28.6	14.6	30.8	12.5	1.0	70

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