Malawi 10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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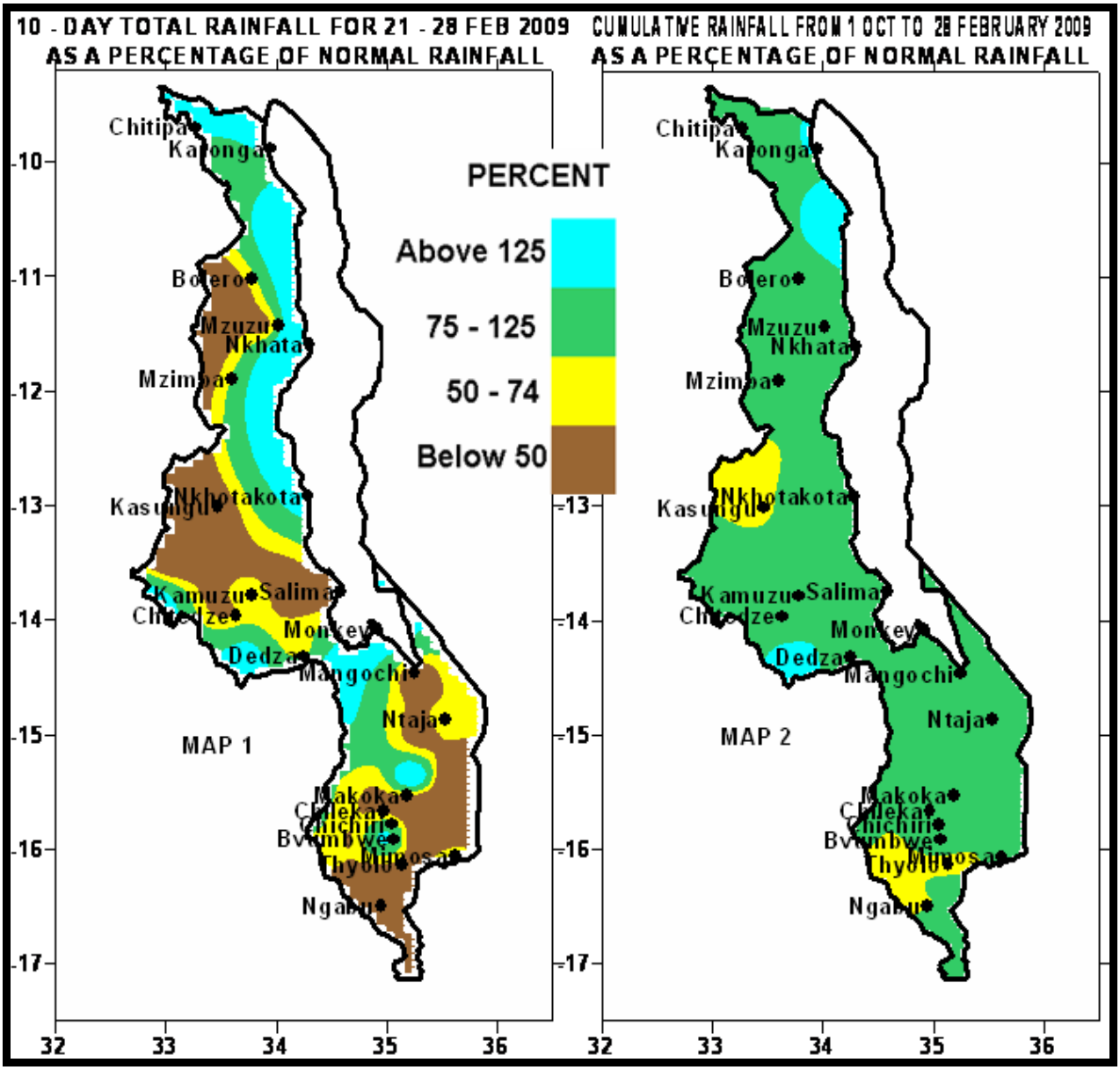
HIGHLIGHTS

- **Dry spells spread to more areas in the country …**
- **Maize crop was mostly at maturity and drying stages ……**
- **Light to moderate rains to persist during 01 – 10 March, 2009……**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the last eight days of February 2009, generally light rains caused drier than normal weather conditions over most parts of Malawi. Some areas registered little or nil rainfall throughout the period. Such areas included most areas in lower Shire, some parts of Mwanza, Neno, Balaka, Thyolo, Phalombe, Mulanje Zomba, Machinga and Mangochi districts in the south, Lilongwe, Kasungu, Mchinji, Dowa, Ntchisi\ and Salima districts in the centre and Mzimba and Rumphi districts in the north. Further analysis of rainfall indicates that some parts of Malawi had been dry for more than three weeks and the worst affected has been lower Shire districts of Chikwawa and Nsanje. Total rainfall amounts of greater than 120mm were confined to Mchinji Boma, Dwangwa and Nkhotakota in the centre and Nkhata Bay and Vinthukutu in northern Malawi. Details are on Table 1..

Cumulative rainfall performance from October 2008 through to 28 February 2009 indicated that generally normal rainfall (**green colour on Map 2)** have been received over most parts of Malawi.

1.2 MEAN AIR TEMPERATURE

During the last eight days of February 2009 average daily maximum temperatures over Malawi were still in the warm to hot category. Higher temperatures persisted in Shire Valley and along the Lakeshore areas. The highest average maximum temperaure was reported at Ngabu (35°C) in Chikwawa district while the lowest was registered at Dedza (24°C). At the same time, the lowest absolute minimum temperatures ranged from 15°C to 23°C See details in Table 2.

1.3 MEAN DAILY WIND SPEEDS

Average daily wind speeds recorded at two meters above the ground were light with a variable direction. The highest speed was still reported at Chileka (2.5m/s or 9 Km/hr) . See Table 2.

1.4 MEAN RELATIVE HUMIDITY

There was an increase in average daily relative humidity values in the last eight days of February 2009 compared to the second ten days. From Table 2 average daily values ranged from 71 to 84% while in the second ten days the values ranged from 70 to 80%. Persistence of humid conditions normally encourage outbreaks of fungal diseases.

2. AGROMETEOROLOGICAL ASSESSMENT

In the last eight days of February 2009, dry spells which are not uncommon in Malawi during the month of February spread to more areas in all parts of the country. The dry spell mostly affected crops that were at a critical flowering stage where the crop water demand is normally at a peak. On the other hand the dry spell facilitated drying of matured early planted crops. In other areas crops were reported to have survived on residual moisture following good rains that were received during early February. The dry spell situation in lower Shire districts of Nsanje and Chikwawa continued to worsen due to persistent high temperatures and soil moisture stress.. Unlike in other parts of the country, the dry spell in lower Shire started towards the end of January and persisted till end of February and some crops were reported to have reached permanent wilting point with no hope for recovery.

Although some parts of the country have experienced dry spells, the general crop stand was still better than last season and another bumper harvest is anticipated. Maize crop was mostly at maturity and drying stages.

3. PROSPECTS OF 2008/09 SEASON

Climate prediction models indicate a continuation of the weak La Nina to ENSO neutral conditions in the next couple of months. The models continue to suggest that the greater part of Malawi should expect above normal to normal rainfall amounts during the period March to May 2009. Normally in Malawi the main rainfall season ends between April and early May.

4. OUTLOOK FOR 01 – 10 MARCH 2009

The short to medium-term weather forecasts indicate that the rainfall over Malawi will be influenced by moist easterly airflow in the south and trough from Congo in the northern half. Hence light to moderate rains which will be locally heavy are expected during the first ten days of March 2009.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3 OF FEBRUARY 2009: PERIOD 21 - 28

STATION NAME	DEKADAL	DEKADAL	DEKADAL	TOTAL	NORMAL	TOTAL	RAINY
SOUTHERN REGION	TOTAL RAINFALL mm	NORMAL mm	TOTAL AS % NORMAL	TO DATE mm	TO DATE mm	TODATE AS % NORMAL	DAYS [3] 0.3 mm
Bvumbwe Met.	107.1	52.0	**206**	988.2	800.9	**123**	5
Chancellor College	20.5	79.3	**26**	752.5	1017.1	**74**	3
Chichiri Met.	62.5	50.7	**123**	886.4	810.3	**109**	3
Chileka Airport	7.8	44.7	**17**	650.3	683.1	**95**	1
Chingale Agric	89.5	48.4	**185**	649.0	744.1	**87**	3
Chiradzulu Agric	12.5	51.1	**24**	681.8	805.4	**85**	2
Kasinthula Res. Stn.	14.2	41.4	**34**	334.7	529.2	**63**	1
Liwonde Township	20.0	54.8	**36**	526.8	646.2	**82**	1
Lujeri Tea Estate	63.9	110.3	**58**	1082.0	1451.5	**75**	4
Makoka Met	25.9	67.4	**38**	851.0	767.8	**111**	3
Mangochi Met.	8.4	45.5	**18**	509.6	645.7	**79**	4
Mimosa Met.	55.5	60.3	**92**	996.0	998.8	**100**	3
Monkey Bay Met.	84.4	42.0	**201**	738.2	791.2	**93**	4
Mpemba Vet	44.8	52.3	**86**	914.9	874.9	**105**	2
Mwanza Boma	42.2	54.1	**78**	640.2	758.5	**84**	4
Namiasi Agric	31.4	47.3	**66**	464.8	669.0	**69**	2
Naminjiwa Agric	0.0	49.7	**0**	972.0	765.6	**127**	0
Nchalo Illovo	12.0	39.4	**30**	400.7	531.6	**75**	1
Neno Agric	30.8	50.1	**61**	798.6	888.0	**90**	3
Ngabu Met.	8.8	44.7	**20**	446.0	592.9	**75**	1
Nsanje Boma	8.6	35.9	**24**	588.9	655.2	**90**	1
Ntaja Met.	35.8	55.9	**64**	808.8	685.1	**118**	5
Satemwa Tea Est.	24.1	55.8	**43**	539.9	909.8	**59**	2
Thyolo Met	25.4	42.8	**59**	799.9	828.1	**97**	1
CENTRAL REGION							
Chileka Namitete	34.4	60.4	**57**	375.8	737.7	**51**	3
Chitedze Met.	19.7	58.4	**34**	582.4	709.5	**82**	5
Dedza Met	42.7	61.1	**70**	738.7	742.9	**99**	5
Dowa Agric	17.0	58.9	**29**	640.8	679.3	**94**	4
Dwangwa Sugar Corp.	142.5	68.9	**207**	945.8	800.3	**118**	6
K.I.A Met	39.8	49.6	**80**	632.7	655.0	**97**	3
Kasungu Met	11.3	58.9	**19**	451.4	706.7	**64**	3
Lisasadzi	10.2	54.8	**19**	521.0	666.2	**78**	1
Malomo Agric	35.0	48.8	**72**	765.1	630.3	**121**	3
Mchinji Boma	127.5	60.9	**209**	963.2	795.6	**121**	4
Mkanda Met	0.0	53.7	**0**	691.5	713.8	**97**	0
Mwimba Research	0.0	79.4	**0**	486.9	723.1	**67**	0
Mtakataka Airwing	38.8	25.6	**152**	1152.7	668.4	**172**	1
Nathenje Agric	36.0	56.7	**63**	793.5	679.7	**117**	4
Nkhotakota Met	161.6	89.2	**181**	1073.9	896.5	**120**	5
Ntcheu - Nkhande	98.6	63.5	**155**	1045.3	841.6	**124**	4
Ntchisi Boma	49.5	62.8	**79**	801.3	679.7	**118**	3
Salima Met	22.3	80.0	**28**	858.9	911.7	**94**	7
Dedza RTC	63.7	42.3	**151**	757.4	764.7	**99**	6
NORTHERN REGION							
Bolero Met	18.5	30.6	**60**	518.0	571.5	**91**	4
Bwengu Agric.	38.3	38.2	**100**	544.9	635.4	**86**	4
Chitipa Met	66.8	50.6	**132**	605.3	731.2	**83**	7
Karonga Met.	92.8	60.3	**154**	827.1	586.3	**141**	0
Lupembe	48.2	58.3	**83**	579.7	531.6	**109**	5
Mbawa Res. Stn	23.0	49.9	**46**	623.5	653.2	**95**	3
Mzimba Met	38.8	50.1	**77**	581.9	676.5	**86**	5
Mzuzu Met.	35.0	51.8	**68**	616.8	746.9	**83**	5
NkhataBay Met.	123.1	24.6	**500**	851.0	954.0	**89**	8
Vinthukutu Agric	155.3	49.9	**311**	1335.2	653.3	**204**	5

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 3 OF FEBRUARY 2009

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	27.8	16.5	28.4	15.7	N/A	79
BVUMBWE	25.9	17.6	26.8	16.8	1.7	77
CHICHIRI	26.5	18.0	28.0	17.3	0.7	74
CHILEKA	29.2	20.6	30.1	19.4	2.5	75
CHITEDZE	27.8	18.2	29.1	17.6	0.5	79
CHITIPA	27.0	17.6	27.6	16.8	2.2	77
DEDZA	23.5	16.1	25.2	15.6	1.1	77
K.I.A.	26.4	17.3	27.5	15.0	1.5	75
KARONGA	29.7	21.8	30.5	21.0	0.9	77
KASUNGU	27.3	18.2	298.1	16.9	1.3	81
MAKOKA	27.8	18.2	28.7	16.8	0.9	78
MANGOCHI	N/A	22.2	N/A	21.0	0.8	73
MIMOSA	30.8	21.3	32.2	18.0	0.8	71
MONKEY BAY	30.4	22.2	31.5	20.5	1.0	76
MZIMBA	26.7	16.6	28.0	15.9	0.6	78
MZUZU	24.7	17.9	25.7	14.3	1.5	84
NGABU	35.4	24.1	36.8	23.2	1.6	66
NKHATA BAY	29.5	20.7	30.9	19.5	0.8	83
NKHOTAKOTA	28.6	21.4	29.9	20.0	N/A	81
NTAJA	28.7	21.3	29.9	20.1	1.1	79
SALIMA	29.8	21.8	30.7	21.1	0.7	80

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