Malawi 10-Day Rainfall & Agrometeorological Bulletin

Department of Climate Change and Meteorological Services

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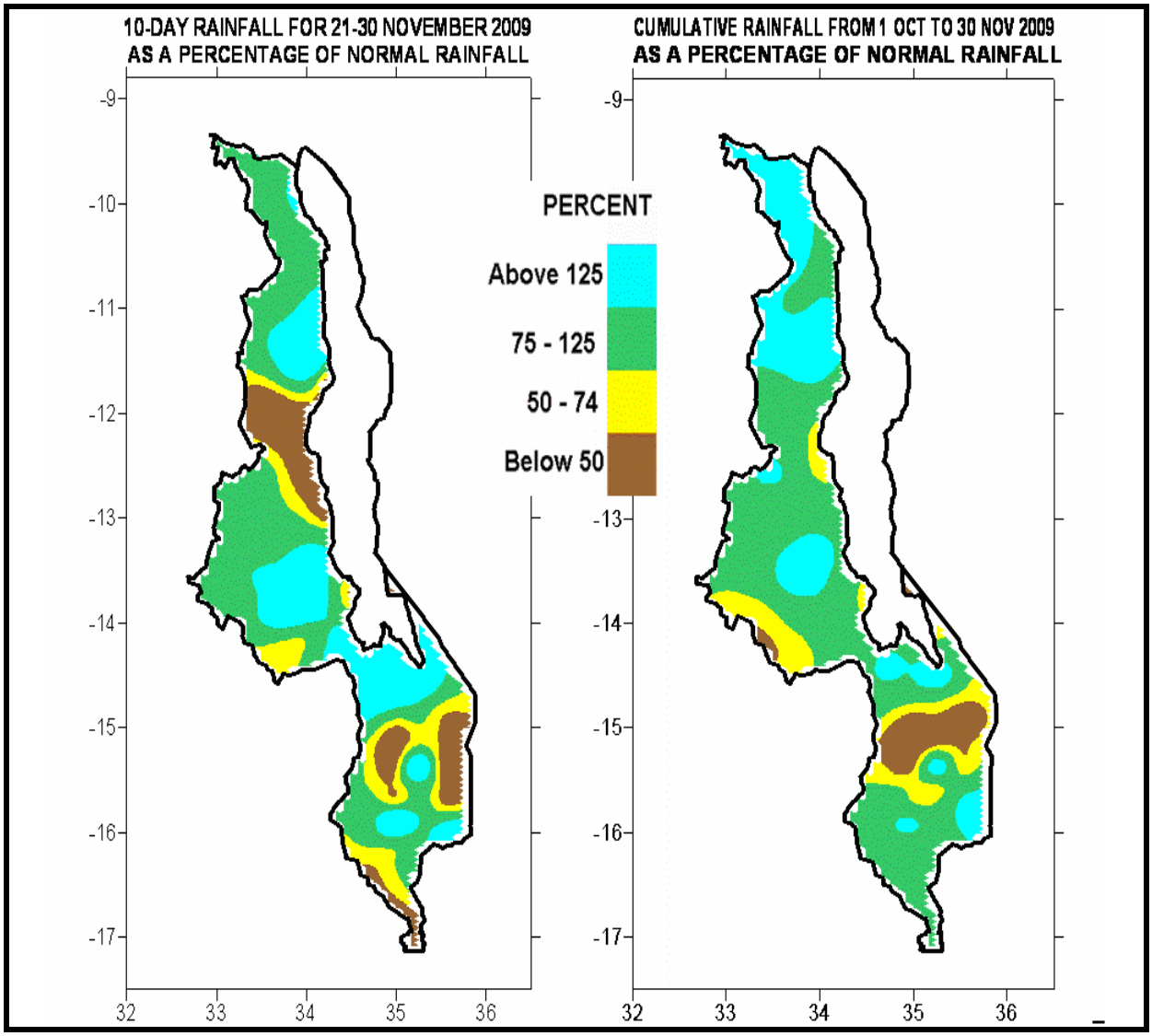
HIGHLIGHTS

- **Good rainfall distribution and amounts experienced in some parts…**
- **Farmers continued with planting and procurement of farm inputs…**
- **Isolated thunderstorms expected during the first ten days of December 2009…**



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1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

Favourable rains were experienced in most parts of the country during the last ten days of November 2009. However, a few areas over the northern, central and southern Malawi received below average rainfall amounts (Refer to Map 1). Cumulatively, a few areas in the south have received below average rainfall (Refer to Map 2). Places that accumulated at least 50 mm of rainfall during the period under review include Lujeri (174 mm), Mimosa (125 mm), Bvumbwe (98 mm), Mpemba (97 mm), Nankumba (92 mm), Zomba (77 mm), Chichiri (68 mm), Chingale (68 mm) and Masambanjati (66 mm) in the south; KIA (67 mm), Nkhande (64 mm) and Chitedze (56 mm) in the centre; and Mzuzu (92 mm) in the north. For the southern region, rainfall was mainly received during the first half of the period under review while in the other regions the distribution in time was almost even. More stations reported between four and six rainy days. See more details in Table 1.

1.2 MEAN AIR TEMPERATURE

Mean maximum air temperatures at most places were generally high but Ngabu in lower Shire Valley continued to experience very hot temperatures (37°C). The lowest mean maximum temperature was reported at Mzuzu (26°C). On the other hand, minimum temperatures ranged from 16°C at Mzuzu Airport to 24°C along the lake shore areas (details in Table 2).

1.4 MEAN WIND SPEEDS

Mean wind speeds at a height of two metres above the ground ranged from 0.9 m/s (3.2 Km/h) at Chichiri to 2.9 m/s (10.4 Km/h) at Chileka (Refer to Table 2).

1.5 MEAN RELATIVE HUMIDITY

During the last ten days of November 2009, higher values of relative humidity were reported in most parts of Malawi compared to the previous review period. The highest daily average relative humidity was reported at Mzuzu Airport (71%) while the lowest daily average relative humidity was 59%, reported at Bolero. More details are in the Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

Light to moderate rains received in some parts of the country enabled farmers to continue with planting and in other few areas the rains supported germination of crops. In Malawi, planting rains are normally expected in November in the south and in December in the northern half. So far the onset of the rains appear sporadic such that by 30th November 2009, field reports suggested that although the growing season has started in some parts of the country, pockets of dry areas still existed in some parts of the country. Such areas included Balaka - Liwonde and some parts of Phalombe, Zomba and Machinga districts in the south, some parts of Lilongwe, Mchinji and Nkhotakota districts in the centre. See details on Map 2.

Procurement of agricultural inputs (fertilizer and seeds) through the government of Malawi input subsidy program to boost agricultural production was in progress in most parts of the country.

3. PROSPECTS OF 2009/10 RAINFALL SEASON

Most climate models continue to indicate that during the first half of the season (October to December 2009), the northern half of Malawi is likely to receive normal to above normal rainfall while the Southern half will receive above normal to normal rainfall. These rains are likely to support planting, germination and growth and development of various crops in Malawi

During January to March 2010 the northern half of Malawi will receive above normal to normal rainfall while the Southern half will receive normal to above normal rainfall. The rains in the second half will be enough to support maturity of most crops.

4. OUTLOOK 01 – 10 DECEMBER 2009

Isolated thunder storms are expected during the first half of the period 1to 10 December 2009. However a pick of rainfall activities mainly over the southern areas is expected later.

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 21 – 30 NOVEMBER 2009 AT SELECTED STATIONS

STATION NAME	DEKADAL TOTAL RAINFALL (mm)	DEKADAL NORMAL RAINFALL (mm)	RAINFALL DEKADAL TOTAL (%)	TOTAL TO DATE (mm)	NORMAL TO DATE (mm)	RAINFALL TOTAL TODATE (%)	RAINY DAYS
SOUTH							
Balaka Township	14	34.3	41	15	100.6	15	2
Bvumbwe Met.	98.1	43.7	224	164.4	128.6	128	3
Chancellor College	28.3	48	59	59.1	123.5	48	1
Chichiri Met.	68	75.9	90	134.9	301.5	45	4
Chileka Airport	18.2	43.9	41	117.7	123	96	4
Chingale Agric	67.5	36.2	186	137	88.7	154	4
Liwonde Township	16	24.1	66	16	62.4	26	1
Lujeri Tea Estate	173.8	67.8	256	436.9	316.2	138	5
Mpilipili (Makanjila)	8.3	20.6	40	12.3	64	19	1
Makoka Met	36.3	35	104	52.3	92.7	56	5
Mangochi Met.	38	16.9	225	78	45.5	171	4
Masambanjati Agric	65.9	45.4	145	177.6	150.4	118	4
Mimosa Met.	124.8	58.6	213	241.6	203.6	119	3
Monkey Bay Met.	11.4	8.1	141	12.2	22.1	55	2
Mpemba Vet	97	49.3	197	212.8	145.9	146	4
Namiasi Agric	36.1	16.7	216	42.6	39.5	108	2
Naminjiwa Agric	4.9	34.6	14	159.1	95.4	167	1
Nankumba Agric	91.5	27.2	336	91.5	63.3	145	3
Nchalo Sucoma	12.7	28	45	69.5	78.1	89	2
Neno Agric	33	40.7	81	67	117.4	57	3
Nsanje Boma	2.4	35.1	7	135.4	154.2	88	1
Ntaja Met.	13.6	29.6	46	19	73.8	26	1
Phalula Agric	0	40.7	0	3.8	114	3	0
Satemwa Tea Est.	30	43.5	69	121.7	134.5	90	3
Thyolo Met	19.3	44.7	43	120	143.6	84	4
Zomba Land Hus.	76.9	46.5	165	111.4	110.4	101	2
CENTRE							
Chileka Namitete	37	39.6	93	42.8	99.9	43	2
Chitedze Met.	55.5	32.5	171	73.1	86	85	6
Dwangwa	0	39.8	0	44.6	92.2	48	0
Kaluluma DTC	12.8	12.3	104	56.7	40.3	141	1
K.I.A Met	67.1	19.1	351	75.4	65.7	115	3
Kasiya Agric	48.1	31.8	151	101.6	109.7	93	5
Kasungu Met	24.1	25.3	95	38.5	52.9	73	2
Mchinji Boma	40.1	40	100	81.8	113.4	72	4
Mponela Agric	40.5	28.9	140	110	63.4	174	5
Mtakataka Airwing	13.2	22.4	59	29.2	52.3	56	2
Nathenje Agric	19.5	29	67	65.5	73.6	89	4
Ntcheu - Nkhande	64	34.1	188	96.2	92	105	5
Ntchisi Boma	47.4	33	144	76.3	62.2	123	2
Salima Met	1.3	16.8	8	20.4	42.8	48	1
NORTH							
Bolero Met	20.1	20.6	98	50.9	44	116	4
Chitipa Met	41.1	44.8	92	167.4	75.8	221	3
Karonga Met.	39	28.7	136	60.6	49.5	122	1
Mzimba Met	0	24.2	0	50.6	63.4	80	0
Mzuzu Met.	92.3	30.5	303	230.5	107.5	214	5
NkhataBay Met.	3.7	31.7	12	65.4	95.5	68	3

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 21 – 30 November 2009

STATION	MAX TEMP (℃)	MIN TEMP (℃)	ABS MAX (℃)	ABS MIN (℃)	WIND SPEED m/s	RH %
BOLERO	31.3	17.9	33.8	15.0	N/A	59
BVUMBWE	26.6	17.5	29.8	15.0	2.0	73
CHICHIRI	27.9	18.5	32.0	16.5	0.9	69
CHILEKA	29.8	20.7	32.8	18.6	2.9	69
CHITEDZE	29.1	18.4	31.7	16.2	1.0	67
CHITIPA	28.8	18.3	30.7	16.8	2.1	68
K I A	28.0	17.4	29.4	15.3	1.7	65
KARONGA	31.8	23.5	33.5	21.0	2.0	67
KASUNGU	30.4	19.6	33.4	17.5	2.7	61
MAKOKA	28.5	18.6	31.8	15.8	1.4	73
MANGOCHI	N/A	22.8	N/A	21.9	1.7	65
MIMOSA	31.1	18.1	35.0	16.0	1.3	61
MONKEY BAY	32.6	24.3	35.0	22.5	2.4	60
MZIMBA	28.9	17.7	32.0	15.9	1.3	60
MZUZU	26.4	17.0	28.5	15.0	2.6	74
NGABU	36.6	23.3	40.8	19.4	2.3	62
NKHATA BAY	32.8	21.1	35.1	19.8	1.0	65
NKHOTAKOTA	31.2	23.4	33.1	22.4	N/A	62
NTAJA	31.4	21.7	34.6	20.0	N/A	66
SALIMA	31.0	23.8	34.2	23.1	2.6	61

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