Malawi 10-Day Rainfall & Agrometeorological Bulletin

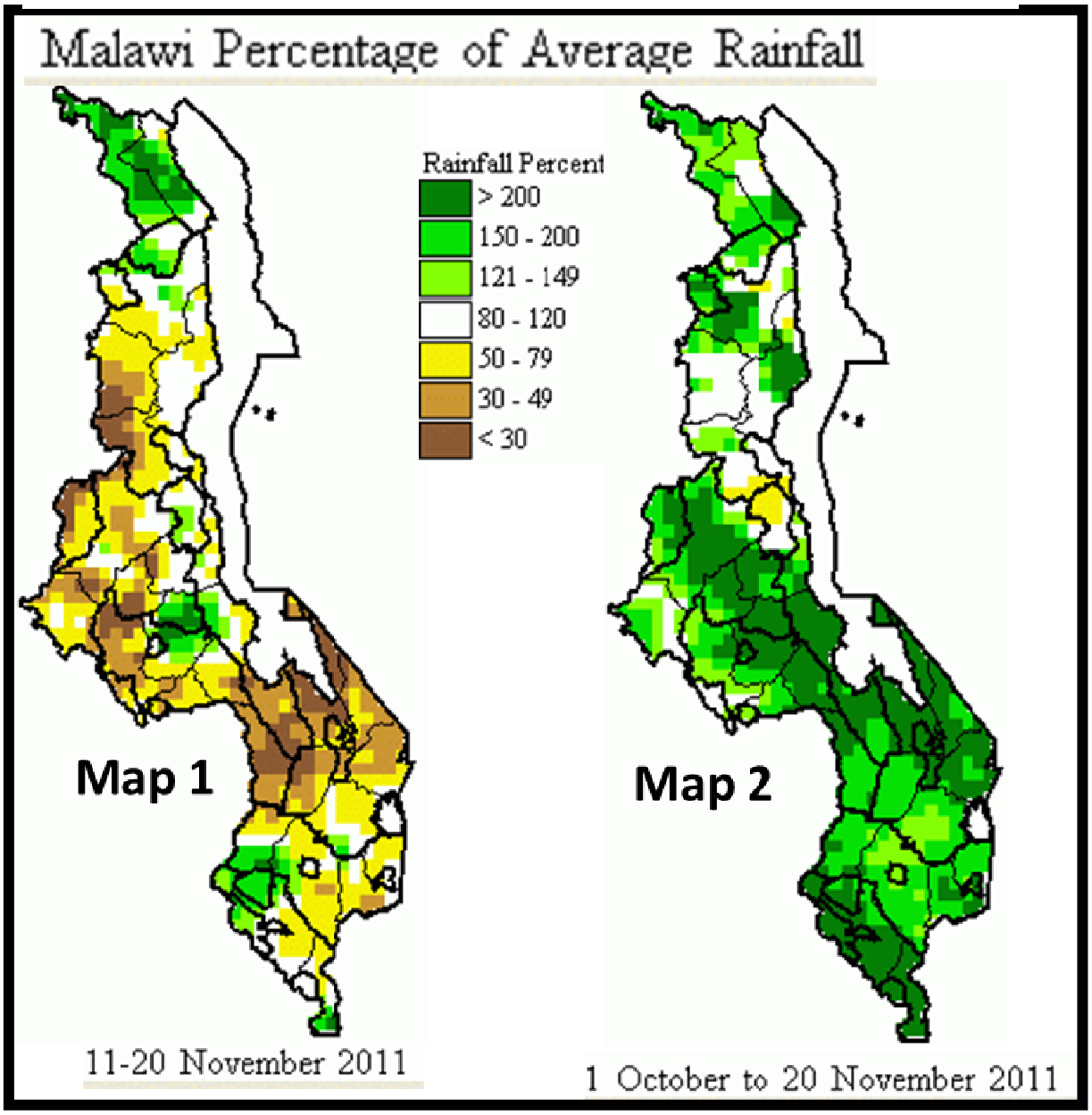
Department of Climate Change and Meteorological Services

Period: 11 – 20 November 2011 | Season: 2011/2012 | Issue No.5

Release date: 25th November 2011

HIGHLIGHTS

- *Below average rainfall situation registered in most areas during 11 to 20 November 2011…*
- *Land preparation, planting and procurement of farm inputs were major agricultural activities …*
- *Rainfall distribution and amounts likely to improve during last days of November 2011 …*



All inquiries should be addressed to: The Director of Climate Change and Meteorological Services, P.O. Box 1808, Blantyre, MALAWI
Tel: (265) 1 822 014/106 Fax: (265) 1 822 215 E-mail: metdept@metmalawi.com Homepage: www.metmalawi.com

1.1 RAINFALL SITUATION

During the second ten days of November 2011, mostly dry conditions were observed over most parts of Malawi. As a result generally below average rainfall situation (Yellow and Brown colours in Map 1) was observed over most parts of the country. Good rainfall was confined to very few and sporadic areas. During the entire period areas which received significant cumulative ten day rainfall amounts of more than 35mm included Chancellor College in Zomba (36mm), Kamuzu International Airport Met in Lilongwe (45mm) while Mkanda and Mchinji Agric stations in Mchinji reported 36 and 39mm respectively.

Usually the main rain bearing systems for Malawi namely Inter Tropical Convergence Zone and Congo Air get established over the country anytime between the middle of November and December. So far most parts of Malawi have received pre-rains that are locally referred to as Chizimalupsya. The percentage of average rainfall since the season started in October up to 20 November shows that most parts of Malawi have above average rainfall. However dry conditions have also persisted in other areas resulting in below average rainfall. For more details see Map 2 and Table 1.

1.2 MEAN AIR TEMPERATURE

Generally hot to very hot air temperatures were experienced during the second ten days of November 2011. Mean maximum temperatures for most areas were above 30°C except over high altitude areas like Dedza, Kamuzu International Airport (KIA), Mzimba and Mzuzu. The highest reported absolute maximum was 43°C which was registered at Ngabu. Overall, mean daily maximum temperatures for the period ranged from 27°C at Dedza to 40°C at Ngabu while mean minimum temperatures ranged from around 13°C at Kamuzu International Airport to around 24°C at Monkey Bay in Mangochi. For more details see Table 2.

1.4 MEAN WIND SPEEDS

Mean wind speeds recorded at a height of two metres above the ground level across the country ranged from 0.8 to 3.4 metres per second or 2.9 – 12.2 Km/hr (see details on Table 2). The highest wind speeds were reported at Chileka Airport (3.4 m/s).

1.5 MEAN RELATIVE HUMIDITY

During the second ten days of November 2011, fairly dry air prevailed over Malawi. Daily average relative humidity values at Bolero and Kasungu were as low as 39% while the highest was 72% recorded at Chichiri in Blantyre. More details are on the Table 2.

1.6 MEAN SUNSHINE HOURS

During the period 11 to 20th November 2011Malawi registered over eight hours of bright sunshine each day. Mean daily sunshine duration values across the country ranged from 8.2 hours per day at Bolero to 10.2 hours per day at Monkey Bay in Mangochi as shown in Table 2

2. AGROMETEOROLOGICAL ASSESSMENT

The rains that were received during the second ten days of November 2011 were not enough to support good crop germination. High temperatures resulted in fast depletion of soil moisture and wilting was observed in some field crops especially at during midday. These rains facilitated land preparations and where enough moisture had been received farmers have been planting crops. The rains also supported growth and development of pasture and regeneration of the natural vegetation. In the south including some parts of Zomba, Mulanje, Phalombe, Chiradzulu, Thyolo and Blantyre districts maize crop was reported doing well at germination to vegetative stages.

The major agricultural activities during the period under review included implementation of government Farm Input Subsidy Program (FISP), land preparation, weeding, basal and top dressing fertilizer application where farmers planted mid-October. Spatial rainfall distribution and intensity in most parts of the country have remained poor and erratic.

3. PROSPECTS FOR 2011/12 RAINFALL SEASON

***"Normal total rainfall amounts are expected over most parts of Malawi* from October 2011 to March 2012**". The rainfall forecast indicates that from October to December 2011, the northern half of the country will receive normal to above normal total rainfall amounts while the southern half will experience normal to below normal total rainfall amounts. The greater part of the country will experience normal to above normal total rainfall amounts during January to March 2012.

The seasonal forecast is used as a planning tool. For day to day operations, users are advised to make use of the available short and medium range forecasts and the 10-day Rainfall and Agrometeorological bulletin.

4. OUTLOOK FOR 21 – 30 NOVEMBER 2011

Meanwhile medium range weather forecasts indicate that the main rain bearing systems for Malawi are slowly getting organized. Therefore Malawi is likely to experience improved rainfall distribution and amounts within the last ten days of November 2011.

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 11 – 20 NOVEMBER 2011 AT SELECTED STATIONS

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS %	TOTAL TO DATE	NORMAL TO DATE	TOTAL TO DATE AS %	RAINY DAYS
SOUTHERN REGION	mm	mm	NORMAL	mm	mm	NORMAL	≥ 0.3mm
Bvumbwe Met.	10.0	34.0	29	86.3	84.9	102	3
Chancellor College	36.0	27.5	131	128.2	75.5	170	2
Chichiri Met.	14.1	59.2	24	115.9	225.7	51	2
Chikwawa Boma	0.6	21.9	3	23.8	55.5	43	1
Chileka Airport	28.6	30.7	93	80.9	79.1	102	1
Chingale Agric	9.0	20.8	43	141.3	52.5	269	3
Kasinthula Res. Stn.	1.8	13.7	13	54.5	60.0	91	1
Makhanga Met	0.2	20.9	1	66.6	64.2	104	0
Makoka Met	33.2	18.1	183	161.8	57.9	279	3
Mangochi Met.	0.0	7.3	0	102.4	28.5	359	0
Mimosa Met.	9.0	49.4	18	217.4	145.1	150	2
Monkey Bay Met.	0.0	3.9	0	88.2	13.9	635	0
Namiasi Agric	0.0	10.6	0	46.3	22.9	202	0
Ngabu Met.	0.0	15.5	0	53.4	55.5	96	0
Ntaja Met.	5.3	22.0	24	54.7	44.2	124	1
Phalula Agric	8.4	32.4	26	59.8	73.4	81	2
CENTRAL REGION							
Bunda College	0.0	28.4	0	0.0	63.7	0	0
Chitedze Met.	4.6	32.6	14	67.4	53.5	126	2
Dedza Met	0	20.8	0	134.9	41.9	322	0
Dowa Agric	9.7	17.5	55	33.6	33.8	99	1
Dwangwa	10.5	30.3	35	40.5	52.4	77	1
Dzonzi Forest	13.0	22.8	57	111.0	59.6	186	1
K.I.A Met	45.0	26.3	171	113.8	46.6	244	1
Kasungu Met	4.1	14.8	28	8.2	27.6	30	1
Lifuwu	14.2	13.5	105	71.7	20.3	353	1
Mchinji Boma	36.0	28.6	126	121.2	73.4	165	2
Mkanda Met	39.5	30.8	128	87.8	55.9	157	1
Nkhotakota Met	0.0	14.0	0	54.9	30.4	181	0
Ntcheu - Nkhande	12.4	17.4	71	48.2	57.9	83	4
Salima Met	9.6	11.9	81	50.7	25.9	196	1
Dedza RTC	0.0	24.8	0	128.7	60.6	212	0
NORTHERN REGION							
Baka Res. Stn.	0.0	6.6	0	0.0	11.2	0	0
Bolero Met	0.0	13.5	0	12.2	23.4	52	0
Bwengu Agric.	0.0	16.3	0	7.2	35.1	21	0
Chikangawa forest	0.0	27.2	0	68.6	55.7	123	0
Chitipa Met	25.4	16.8	151	41.2	31.1	132	1
Karonga Met.	0.0	15.6	0	0.0	20.8	0	0
Lupembe	0.0	11.6	0	2.0	17.2	12	0
Mbawa Res. Stn	21.8	24.8	88	51.1	44.8	114	3
Mzimba Met	14.8	24.1	61	68.9	39.1	176	2
Mzuzu Met.	4.8	28.1	17	196.9	76.9	256	1
NkhataBay Met.	13.7	33.1	41	90.4	63.9	141	1

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 11 – 20 NOVEMBER 2011

	TEMP (°C)	TEMP (°C)	MAX (°C)	MIN (°C)	SPEED m/s	%	SHINE HOURS	mm per day	mm per day	TION cal cm-² p/day
BOLERO	32.9	20.2	33.5	18.5	2.0	39	8.2	7.9	6.4	9.8
BVUMBWE	30.8	19.2	34.1	18.4	2.4	57	9.2	8.0	6.4	10.5
CHICHIRI	31.0	19.8	32.4	17.2	1.0	72	N/A	N/A	N/A	N/A
CHILEKA	33.5	22.0	35.0	18.6	3.4	47	N/A	N/A	N/A	N/A
CHITEDZE	31.1	19.1	32.1	18.2	1.1	54	8.8	7.5	5.9	10.2
CHITIPA	31.3	19.6	33.5	16.5	2.6	52	8.8	8.0	6.4	10.2
DEDZA	26.5	17.9	28.4	16.8	N/A	N/A	N/A	N/A	N/A	N/A
K I A	29.3	17.4	30.3	13.1	1.9	59	8.9	7.4	5.8	10.3
KARONGA	34.3	24.2	36.2	23.0	1.9	51	9.7	8.9	7.2	10.8
KASUNGU	32.5	20.0	33.5	17.6	2.5	39	N/A	N/A	N/A	N/A
MAKOKA	30.6	19.7	32.4	17.2	1.3	60	N/A	N/A	N/A	N/A
MANGOCHI	34.1	24.4	36.0	22.9	1.9	55	9.4	8.8	7.1	10.6
MIMOSA	33.1	19.3	35.3	17.3	1.3	55	N/A	N/A	N/A	N/A
MONKEY BAY	33.4	25.4	35.0	23.9	2.3	53	10.2	9.3	7.5	11.1
MZIMBA	29.7	19.0	31.2	16.7	1.3	67	10.1	7.8	6.1	11.1
MZUZU	28.7	16.9	30.0	14.2	1.8	59	9.9	7.6	5.9	11.0
NGABU	39.6	20.8	42.5	18.0	2.6	48	N/A	N/A	N/A	N/A
NKHATA BAY	34.4	20.7	35.4	19.0	0.8	60	10.1	8.3	6.5	11.1
NKHOTAKOTA	32.6	23.8	33.3	22.2	2.3	56	N/A	N/A	N/A	N/A
NTAJA	34.4	23.0	35.6	21.0	2.4	55	N/A	N/A	N/A	N/A
SALIMA	34.1	24.8	34.7	21.8	2.0	54	N/A	N/A	N/A	N/A

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