Malawi 10-Day Rainfall & Agrometeorological Bulletin

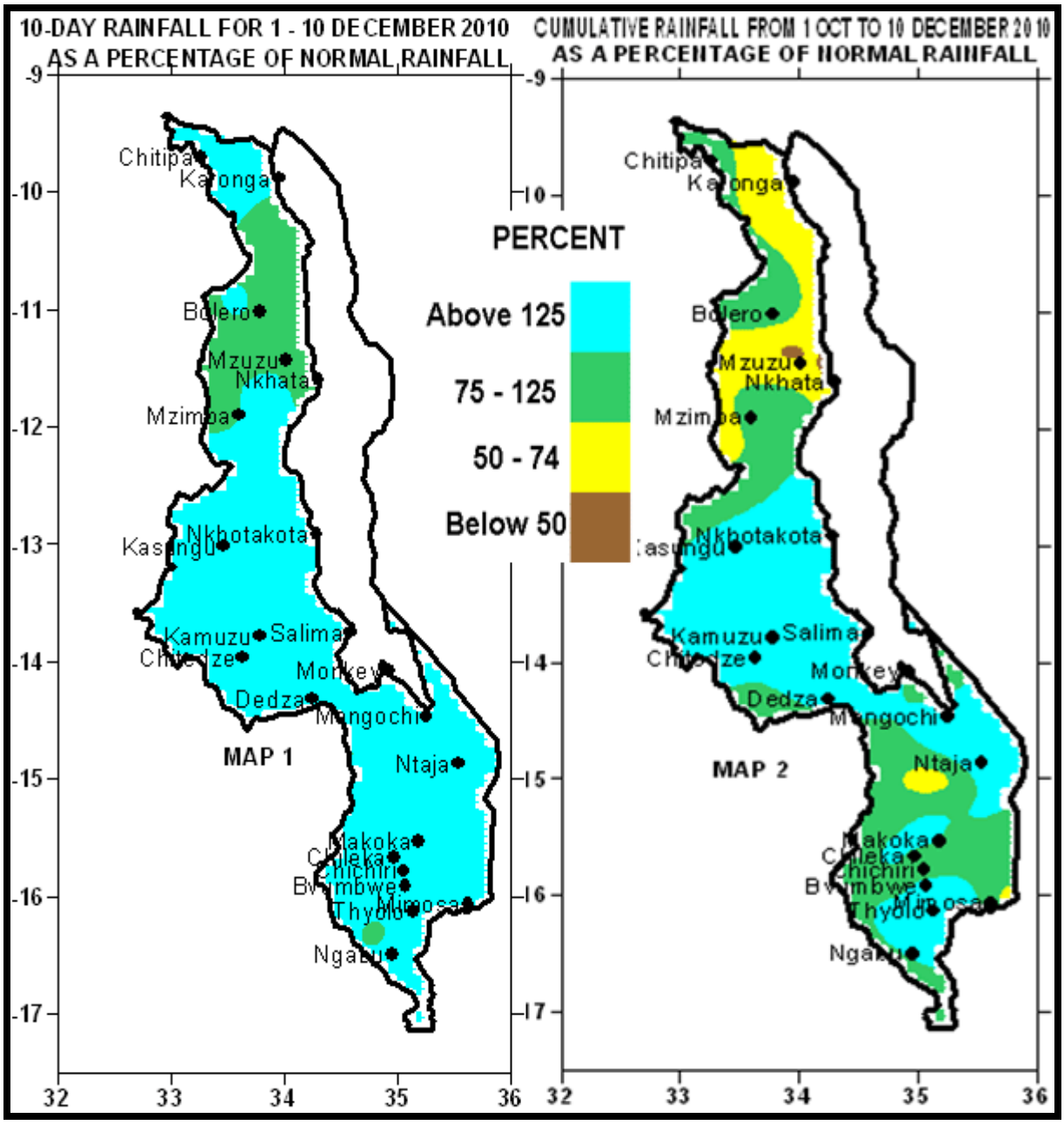
Department of Climate Change and Meteorological Services

Period: 01 – 10 December 2010 | Season: 2010/2011 | Issue No.7

Release date: 15th December 2010

HIGHLIGHTS

- Above average rainfall experienced over most parts of Malawi …
- Maize crop reported doing well at germination and early vegetative stages…
- Widespread rains to continue during 11 – 20 December, 2010…



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) 1 822 205 E-mail: metdept@metmalawi.com Homepage: www.metmalawi.com

1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the first ten days of December 2010, both main rain bearing systems namely the Inter Tropical Convergence Zone and Congo Air Mass were active over Malawi. As a result most areas in Malawi received incessant moderate to heavy rainfall. Many areas registered above average rainfall (*Light Green Colour on Map 1*). Highest rainfall figures were reported over southern Malawi and over Salima and Nkhota kota along the lakeshore. Places that reported high cumulative rainfall above 175mm included Thyolo Met (218mm), Kasinthula (206mm), Bvumbwe (184mm) and Lujeri (180mm) in the southern Malawi while in the Centre such high rainfall figures were reported at Salima Met (316mm) and Dwangwa (233mm). The north on the other hand registered relatively lower amounts of rainfall. More details are in Table 1 and Map 1.

Map 2 shows cumulative rainfall performance for the period 1st October to 10th December 2010. Generally southern and central Malawi have received average to above average rainfall amounts while the north has received mostly below average cumulative rainfall amounts.

1.2 MEAN AIR TEMPERATURE

High cloud cover caused a drop in mean maximum air temperatures over Malawi. Most areas registered warm to hot temperatures. The highest absolute maximum temperature was reported at Ngabu (36℃) and the lowest absolute minimum temperature was 15℃ reported at Kamuzu International Airport and Dedza. See more details in Table 2.

1.4 MEAN WIND SPEEDS

Average wind speeds at a height of two metres above the ground ranged from 0.7 m/s (2.5 Km/h) at Nkhata Bay to 3.4 m/s (12.2 Km/h) at Ngabu. See more details in Table 2.

1.5 MEAN RELATIVE HUMIDITY

During the period 1st to 10th December 2010, fairly moist air covered most parts of Malawi. All areas reported daily average relative humidity values of above 65%. The highest daily average relative humidity value was 81% reported at Makoka in Zomba and the lowest was 67% registered at Monkey Bay in Mangochi. More details are in the Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

High rainfall amounts were received particularly in the south and centre. As a result ten day rainfall amounts during the period under review had been significantly above average over most parts of the country. The major farming activities during the period included land preparation, acquisition of farm inputs, and application of basal fertilizer and planting of crops. The rains have significantly improved pasture availability for animal production, water resources, soil moisture reserves and supported seed germination, growth and development of crops.

The general crop stand in the fields particularly for maize was reported in good condition Maize crop ranged from planting to early vegetative stages. So far no major outbreaks of pests and diseases have been reported over the country.

3. PROSPECTS OF 2010/11 RAINFALL SEASON

Updated climate forecast still suggests that during 2010/2011 rainfall season, a greater part of Malawi is likely to experience normal to above normal total rainfall amounts that will result in floods in some areas as *La Nina* conditions have become fully established over the eastern equatorial Pacific Ocean. In simple terms the seasonal rainfall will be adequate to support water resources and agricultural production in most parts of Malawi. High rainfall intensities will result in flooding especially in low lying areas.

4. OUTLOOK 11 – 20 DECEMBER 2010

Medium range forecast products indicate that both main rain bearing systems namely the Inter Tropical Convergence Zone and Congo Air mass will remain active during the second ten days of December 2010. As a result most areas in Malawi will continue experiencing good rainfall distribution and amounts. These rains are likely to support land preparation, planting of crops, seed germination, growth and development of most crops.

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 01 – 10 DECEMBER 2010 AT SELECTED STATIONS

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS %	TOTAL TO DATE	NORMAL TO DATE	TOTAL TODATE AS %	RAINY DAYS
SOUTHERN REGION	mm	mm	NORMAL	mm	mm	NORMAL	≥ 0.3 mm
Balaka Township	62.0	38.1	163	87.5	138.8	63	5
Bvumbwe Met.	183.6	79.2	232	303.9	207.8	146	8
Chancellor College	171.3	99.5	172	312.7	223.0	140	9
Chichiri Met.	122.3	82.1	149	295.7	383.7	77	7
Chikwawa Boma	117.4	56.3	209	199.2	154.0	129	6
Chileka Airport	144.0	53.4	270	256.0	176.4	145	6
Chingale Agric	152.0	61.4	248	254.7	150.1	170	5
Chiradzulu Agric	117.3	60.4	194	159.4	183.3	87	4
Kasinthula Res. Stn.	206.2	48.9	422	282.9	129.3	219	3
Liwonde Township	50.1	60.8	82	50.1	123.2	41	3
Lujeri Tea Estate	180.2	109.9	164	282.8	426.1	66	8
Mpilipili (Makanjila)	117.7	55.8	211	119.7	119.9	100	5
Makoka Met	140.3	71.7	196	207.2	164.6	126	8
Mangochi Met.	86.9	30.7	283	181.0	76.1	238	8
Mimosa Met.	125.7	101.3	124	247.0	305.0	81	7
Monkey Bay Met.	35.9	28.6	126	57.4	50.6	113	6
Namiasi Agric	94.5	50.0	189	108.5	89.6	121	7
Nchalo Illovo	38.0	38.2	99	57.5	116.3	49	3
Ngabu Met.	75.3	48.9	154	170.2	137.2	124	5
Ntaja Met.	149.4	52.0	287	204.2	125.8	162	8
Thyolo Met	218.3	66.9	326	392.0	210.5	186	5
CENTRAL REGION							
Chitedze Met.	168.7	44.0	383	225.3	130.0	173	6
Dedza Met	150.5	48.0	314	164.2	119.9	137	7
Dwangwa Sugar Corp.	232.7	76.6	304	232.7	168.8	138	6
K.I.A Met	124.2	32.7	380	199.3	98.4	203	7
Kasungu Met	110.2	46.1	239	147.3	99.0	149	8
Mtakataka Airwing	105.8	62.9	168	128.3	115.3	111	7
Nkhotakota Met	140.1	76.2	184	169.8	132.1	129	7
Salima Met	316.1	62.0	510	340.3	104.7	325	7
NORTHERN REGION							
Bolero Met	36.5	27.5	133	66.2	71.5	93	5
Chikangawa forest	124.3	54.7	227	156.7	142.6	110	6
Chitipa Met	59.7	42.5	140	96.7	118.4	82	6
Karonga Met.	49.2	37.6	131	49.2	87.1	56	6
Mzimba Met	43.7	47.9	91	100.8	111.2	91	7
Mzuzu Met.	54.4	45.6	119	82.4	153.0	54	6
NkhataBay Met.	47.9	79.8	60	74.4	175.4	42	6

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 01 – 10 December 2010

STATION	MAX TEMP (℃)	MIN TEMP (℃)	ABS MAX (℃)	ABS MIN (℃)	WIND SPEED m/s	RH %
BOLERO	28.8	20.0	34.1	18.5	N/A	69
CHICHIRI	26.8	18.8	29.5	17.0	N/A	78
CHILEKA	29.0	20.8	32.6	18.3	2.5	74
CHITEDZE	27.1	18.6	31.3	17.9	0.8	73
CHITIPA	27.6	18.2	32.6	17.1	1.2	70
DEDZA	24.3	16.5	28.8	15.4	1.0	77
K I A	26.1	17.8	31.2	14.5	1.4	73
KARONGA	30.5	22.8	33.7	21.1	1.5	69
MAKOKA	26.8	19.0	30.1	17.6	1.3	81
MANGOCHI	N/A	22.2	N/A	20.5	1.3	74
MIMOSA	29.5	19.1	33.8	14.8	1.2	78
MONKEY BAY	31.2	24.0	35.7	21.7	2.2	67
MZIMBA	26.1	17.8	30.8	16.9	1.0	75
MZUZU	26.1	17.5	30.4	16.0	1.4	78
NGABU	32.8	21.4	35.8	20.6	3.4	74
NKHATA BAY	30.7	21.7	35.3	20.1	0.7	77
NKHOTAKOTA	29.2	21.8	33.6	19.3	1.8	73
NTAJA	30.4	21.4	37.6	19.0	2.0	75
SALIMA	29.2	21.8	35.1	20.0	2.1	76

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