REPUBLIC OF MALAWI

Department of Climate Change and Meteorological Services

10-day Weather and Agrometeorological Bulletin

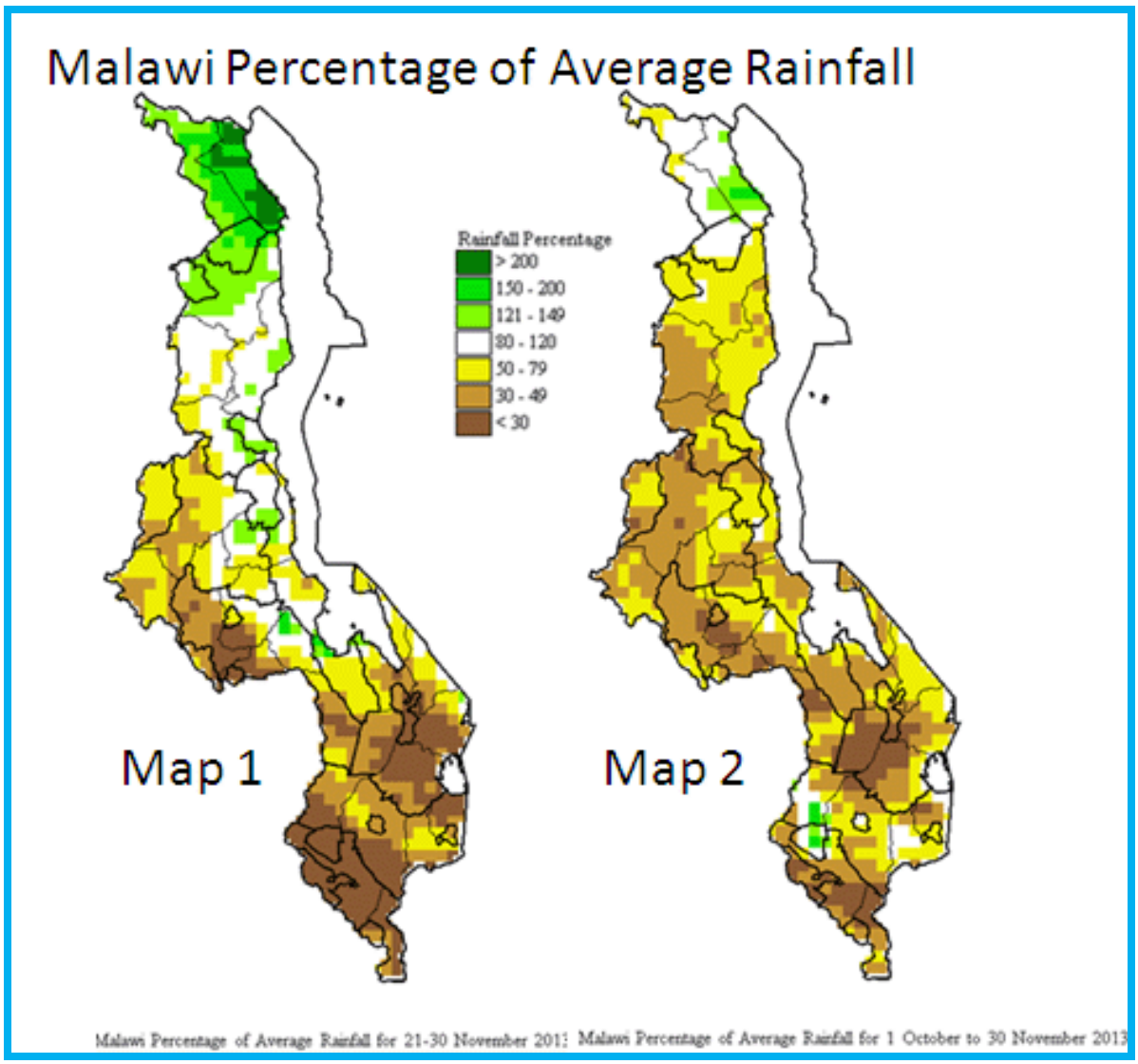
Produced in support of national early warning systems

Period: 21 – 30 November 2013 | Cropping Season: 2013/14 | Issue No.6

Release date: 04 December 2013

HIGHLIGHTS

- **The northern half of Malawi had received better rains than the south…**
- **Land preparation and farm input mobilization were still major activities…**
- **Sporadic rainfall expected to persist during 1st to 10th December 2013…**



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1.0 WEATHER SUMMARY AND IMPACTS

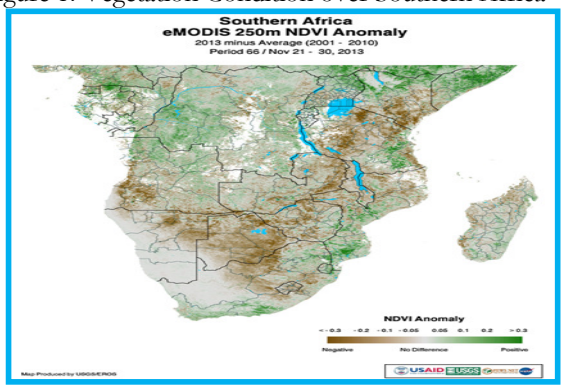
1.1 RAINFALL SITUATION

During the last ten days of November 2013 good rainfall with better distribution and amounts were received over northern half of Malawi while the southern half had had generally experienced poorly distributed rainfall (Map 1 and Table 1). The cumulative rainfall amounts at most of the stations in the north and some parts of central Malawi were above the 30-year average rainfall amounts while in the southern half mostly below average rainfall was received. During the period under discussion the notable ten day total rainfall amounts in excess of 100mm that were reported in northern and central Malawi included Vinthukutu Agric (116mm), Nkhata Bay Met (149mm), Chintheche Agric (120mm), Nkhotakota Met (131mm), and Dwangwa (118mm). Others stations which had recorded high intensity rainfall amounts included Euthin Agric (183%), Mlangeni-Njolomole (194%), Kasiya Agric (151%), Namiasi Agric (210%), Ntaja Met (169%), Mangochi Met (229%) and Monkey Bay (614%) More details are in Table 1.

Map 2 indicates cumulative rainfall performance from 1st to 30th November 2013. Generally the map shows that as at 30th November 2013 most areas in Malawi were still very dry (brown colour) and rainfall was confined to a few areas (yellow and green colour on map 2)

1.2 VEGETATION CONDITION

Figure 1: Vegetation Condition over Southern Africa



The vegetation difference from long term average map for Southern Africa for the period 21 to 30th November 2013 shows that most parts of the region including Malawi are experiencing below average vegetation conditions (Figure 1). As such, pastures are still in poor condition, particularly in areas where low rainfall was received during the 2012/2013 season. The poor vegetation have been due to poor rainfall performance that affected several parts of the region in the last two seasons, especially those in the southern half of the region.

1.3 AIR TEMPERATURE

Generally warm to hot temperatures were experienced over Malawi during the last ten days of November 2013. Very hot temperatures were still observed in Shire Valley. For instance Ngabu Met in Chikwawa had reported a daily average maximum temperature of 37.6°C. Mean maximum temperatures over Malawi had ranged from 24.5°C at Chongoni in Dedza to 37.6°C at Ngabu in Chikwawa while mean minimum temperatures had ranged from 14.6°C at Bvumbwe in Thyolo to 23.4°C at Monkey Bay (Table 2). The highest (absolute) maximum temperature was still recorded at Ngabu (41.1°C) in Chikwawa while the lowest was 11.6°C recorded at Bvumbwe in Thyolo district. For more details see Table 2.

1.4 WIND SPEEDS

Mean wind speeds at a height of two metres above the ground level over Malawi had ranged from 0.9 m/s at Nkhata Bay Met to 3.8 m/s at Chitipa Met. For more details refer to Table 2. Higher wind speeds coupled with drier conditions enhanced prospects for occurrences of wind erosion, and higher evaporation rates.

1.5 RELATIVE HUMIDITY

During the period under review, air over Malawi was became relatively moist. Daily average relative humidity values had ranged from 53% at Ntaja Met and Ngabu Met to 72% at Dedza Met in Dedza District. The details are on the Table 2. High relative humidity values apart from promoting fungal diseases also cause discomfort to communities

2. AGROMETEOROLOGICAL ASSESSMENT

The major on-farm agricultural activities over Malawi included land preparation, procurement of farm inputs and equipment. In areas where significant rainfall amounts have been received, farmers were reported to have started planting crops.

To properly utilize the rains, farmers should adhere to principles of good husbandry including early land preparation, use of appropriate seeds, timely planting, implementation of proper plant population and spacing, control of weeds, pests and diseases, fertilizer application and irrigation. Farmers are advised to seek further guidance from Agricultural Extension Officers.

3. PROSPECTS FOR 2013/14 RAINFALL SEASON

Reports indicate that by 30th November 2013 most parts of Malawi were still dry. However, the bottom line of the 2013/14 rainfall outlook suggests that ***Malawi is likely to experience normal total rainfall amounts during both October to December (OND) 2013 and January, February and March (JFM) 2014. Since October and November have been mostly dry so this means that most of the rains during OND are likely to come within December 2013.*** *A copy of t*he seasonal forecast can be accessed and downloaded ***at the Department of Climate Change and Meteorological Services website using the link below: http://www.metmalawi.com/forecasts/SEASONAL_FORECAST_2013_2014_Press_release.pdf***

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4. OUTLOOK FOR 01 – 10 DECEMBER 2013

Models for short and medium range rainfall forecasts indicate that within the first ten days of December 2013 both rain bearing systems namely; Congo air mass and the Inter Tropical Convergence Zone will be less active over Malawi. Hence sporadic rainfall is likely to persist over Malawi during the period 1st to 10th December 2013.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3 OF NOVEMBER 2013

STATION NAME	ACTUAL DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL (EXPECTED) RAINFALL mm	ACTUAL TOTAL AS PERCENTAGE OF NORMAL (EXPECTED) RAINFALL	TOTAL ACTUAL RAINFALL TO DATE mm	NORMAL (EXPECTED) RAINFALL TO DATE mm	ACTUAL TODATE AS PERCENTAGE OF NORMAL	RAINY DAYS ≥ 0.3 mm
SOUTHERN REGION							
Balaka Township	5.7	34.3	17	5.7	100.7	6	1
Bvumbwe Met.	18.8	43.7	43	46.7	128.6	36	3
Chichiri Met.	28.8	75.9	38	99.2	301.6	33	2
Chikwawa Boma	24.7	42.2	59	75.6	97.7	77	1
Chileka Airport	17.8	43.9	41	81.5	123.0	66	2
Chingale Agric	13.5	36.2	37	41.8	88.7	47	1
Chiradzulu Agric	8.6	42.1	20	23.2	122.9	19	3
Makoka Met	6.3	35.0	18	33.1	92.9	36	2
Mangochi Met.	38.7	16.9	229	63.7	45.4	140	3
Masambanjati Agric	18.4	45.4	41	113.1	150.4	75	1
Mimosa Met.	12.1	58.6	21	102.5	203.7	50	2
Monkey Bay Met.	49.7	8.1	614	49.7	22.0	226	5
Mpemba Vet	25.6	49.3	52	45.8	145.9	31	1
Mulanje Boma	57.2	81.8	70	334.1	293.9	114	3
Mwanza Boma	2.1	52.5	4	2.1	143.7	1	1
Namiasi Agric	35.1	16.7	210	35.1	39.6	89	3
Naminjiwa Agric	41.9	34.6	121	48.0	95.5	50	2
Nchalo Sucoma	5.0	28.0	18	27.3	78.1	35	1
Ngabu Met.	3.3	32.8	10	25.4	88.3	29	2
Ntaja Met.	50.0	29.6	169	82.5	73.8	112	3
Phalula Agric	40.4	40.7	99	40.4	114.1	35	2
Thuchila Agric	14.0	28.4	49	14.0	95.1	15	1
Thyolo Boma	20.3	30.2	67	82.9	122.3	68	4
Thyolo Met	5.9	44.7	13	54.6	143.6	38	3
Zomba RTC	19.0	46.5	41	43.2	110.5	39	1
CENTRAL REGION							
Chitedze Met.	26.9	32.5	83	28.6	86.0	33	3
Dedza Met	25.6	30.0	85	54.1	71.9	75	5
Dowa Agric	26.7	24.0	111	26.7	57.8	46	3
Dwangwa	117.8	39.8	296	131.4	92.2	143	5
K.I.A Met	23.9	19.1	125	23.9	65.7	36	2
Kasiya Agric	48.1	31.8	151	92.5	109.7	84	3
Kasungu Met	28.3	25.3	112	28.5	52.9	54	4
Madisi Agric	27.9	19.3	145	27.9	49.3	57	4
Mlangeni Njolomole	57.9	29.9	194	58.4	89.8	65	3
Mponela Agric	29.3	28.9	101	29.3	63.4	46	3
Nathenje Agric	36.1	29.0	124	36.1	73.6	49	3
Nkhotakota Met	130.8	25.5	513	199.8	55.9	357	5
Ntcheu - Nkhande	6.4	34.1	19	16.7	92.0	18	2
Salima Met	3.7	16.8	22	4.5	42.7	11	2
Dedza RTC	27.4	22.1	124	47.2	82.7	57	2
NORTHERN REGION							
Bolero Met	3.6	20.6	17	7.2	44.0	16	1
Chikangawa forest	15.6	32.2	48	40.4	87.9	46	5
Chitipa Met	46.2	44.8	103	46.2	75.9	61	3
Chintheche Agric	119.8	40.0	300	139.8	131.7	106	5
Euthini Agric.	48.2	26.4	183	48.2	60.2	80	1
Karonga Met.	40.3	28.7	140	40.3	49.5	81	5
Mbawa Res. Stn	9.7	25.4	38	9.7	70.2	14	2
Mzimba Met	22.3	24.2	92	22.8	63.3	36	3
Mzuzu Met.	14.9	30.5	49	76.6	107.4	71	5
NkhataBay Met.	148.9	31.7	470	160.5	95.6	168	6
Vinthukutu Agric	116.2	25.8	450	116.2	65.7	177	3

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 21 TO 30 NOVEMBER 2013

STATION	MAX TEMP (ºC)	MIN TEMP (ºC)	ABS MAX (ºC)	ABS MIN (ºC)	WIND SPEED (m/s)	RH (%)	EVAP (mm)
KARONGA ADD							
Chitipa	29.4	19.1	33.4	16.7	3.8	61	N/A
Karonga	31.5	21.6	35.2	19.0	1.8	63	N/A
MZUZU ADD							
Bolero	31.9	20.7	35.3	18.0	N/A	55	N/A
Mzuzu	26.9	16.4	31.1	14.0	1.5	71	N/A
Mzimba	29.0	18.6	34.1	17.3	1.3	61	N/A
Nkhata Bay	31.9	20.3	37.8	19.4	0.9	71	N/A
KASUNGU ADD							
Kasungu	29.6	N/A	35.5	N/A	1.2	61	N/A
LILONGWE ADD							
KIA	28.0	17.3	32.8	12.5	1.8	63	N/A
Chitedze	29.4	18.1	34.1	15.7	1.2	61	N/A
Dedza	24.5	15.8	28.8	13.0	2.2	72	N/A
SALIMA ADD							
Salima	32.5	23.3	36.6	21.5	2.6	60	N/A
Nkhotakota	29.8	22.2	35.2	19.5	2.2	65	N/A
MACHINGA ADD							
Makoka	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ntaja	31.8	21.7	34.6	19.7	2.4	53	N/A
Mangochi	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Monkey Bay	31.4	23.4	37.1	20.2	2.7	61	N/A
BLANTYRE ADD							
Chileka	31.1	20.9	35.2	18.3	3.4	55	N/A
Chichiri	28.3	17.8	33.6	15.1	2.0	57	N/A
Bvumbwe	27.4	14.6	32.4	11.6	2.5	61	N/A
Mimosa	32.7	18.9	36.2	14.5	1.4	56	6.8
SHIRE VALLEY ADD							
Ngabu	37.6	24.6	41.1	21.7	4.2	53	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