



10-day Weather and Agrometeorological Bulletin

Produced in support of national early warning systems



Period: 11 – 20 November 2013

Season: 2013/2014

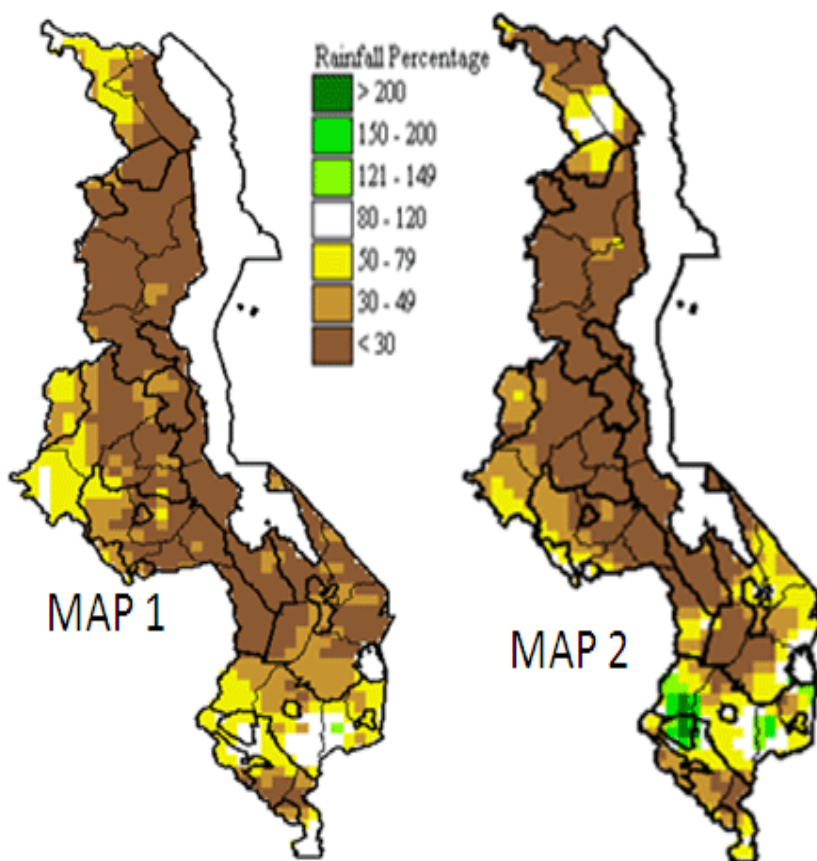
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HIGHLIGHTS

- Malawi continued to experience sporadic rainfall...
- Land preparation and farm input mobilization were still major activities...
- Scattered to widespread rains expected during 21 to 30 November 2013...

Malawi Percentage of Average Rainfall



11 to 20 Nov 2013 Rainfall 01 Oct to 20 Nov 2013 Rainfall

1.0 WEATHER SUMMARY AND IMPACTS

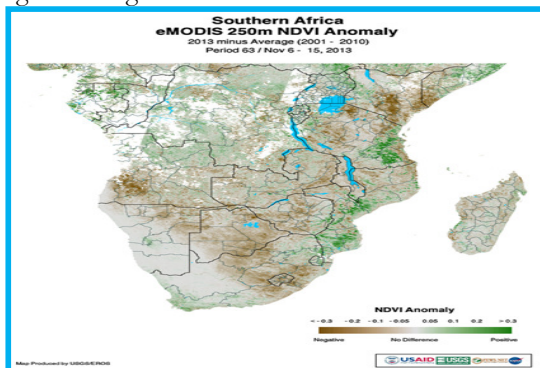
1.1 RAINFALL SITUATION

During the second ten days of November 2013 the rainfall was mostly confined to the south and a few areas in central Malawi while dry conditions had persisted over the north (Map 1 and Table 1). Most of the rains were received during the last five days of the period under review. The cumulative rainfall at most of the stations was below the long term average rainfall amounts except at few places in southern and central Malawi the rainfall was above their long term average for the period under discussion. In central Malawi such high intensity rainfall was reported at Mkanda Agric (244%) in Mchinji district and Kasiya Agric (165%) in Lilongwe district while in the south above average rainfall was reported at Mulanje Boma (129%) in Mulanje district and Thyolo Met (127%) in Thyolo district (Table 1). The other stations that had recorded significant rainfall amounts of at least 20mm during the period under review included Chichiri Met (29mm), Lujeri Tea Estate (73mm) and Thyolo Boma (24mm).

Map 2 indicates cumulative rainfall performance from 1st to 20th November 2013. Generally the map shows that as at 20th November 2013 most areas in Malawi were still very dry (brown colour) and rainfall was confined to a few areas (green colour)

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 11 to 20th November 2013 shows that most parts of the region including Malawi are experiencing below average vegetation conditions (Figure 1). As such, pastures are in poor condition, particularly in areas where low rainfall was received during the 2012/2013 seasons. 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

Hot to very hot temperatures were experienced over most parts of Malawi during the second ten days of November 2013. Very hot temperatures were observed over Shire Valley and along the lakeshore. For instance Ngabu Met in

Chikwawa had reported a daily average maximum temperature of 39.7°C while Nkhata Bay along the lakeshore had reported a daily average maximum temperature of 36.7°C. Mean maximum temperatures over Malawi had ranged from 27.7°C at Chongoni in Dedza to 39.7°C at Ngabu in Chikwawa while mean minimum temperatures had ranged from 16.5°C at Bvumbwe in Thyolo to 25.6°C at Monkey Bay (Table 2). The highest (absolute) maximum temperature was still recorded at Ngabu (43.7°C) in Chikwawa while the lowest was 14.1°C recorded at Bvumbwwe 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 5.2 m/s at Chitipa Met. For more details refer to Table 2.

1.5 RELATIVE HUMIDITY

During the period under review, air over Malawi was still relatively dry. Daily average relative humidity values had ranged from 32% at Bolero Met to 64% at Mimosa Met in Mulanje District. The details are on the Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

The major on-farm agricultural activity over Malawi was land preparation and procurement of farm inputs and equipment. In some Extension Planning Areas (EPAs) where significant rainfall amounts have been received, farmers were reported to have started planting crops but a a very small scale. The rainfall that was received during the previous and in this ten day period had stimulated farmers to speed up land preparations in readiness for the main planting rains.

3. PROSPECTS FOR 2013/14 RAINFALL SEASON

The bottom line of the 2013/14 rainfall outlook is that **during 2013/2014 main farming season, Malawi is likely to experience normal total rainfall amounts.** However, extreme weather events such as floods and prolonged dry spells are likely to occur particularly in prone areas. The 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

4. OUTLOOK FOR 21 – 30 NOVEMBER 2013

Models for short and medium range weather forecasts indicate brighter prospects for scattered to widespread rainfall during the last ten days of November 2013 as the main rain bearing systems namely, Congo air mass and the Inter Tropical Convergence Zone are likely to get established over Malawi. Therefore scattered to widespread rains are expected over Malawi within the period 21 to 30th November, 2013

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 2 OF NOVEMBER 2013

STATION NAME	DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL mm	DEKADAL TOTAL AS PERCENTAGE OF NORMAL	TOTAL TO DATE mm	NORMAL TO DATE mm	NORMAL TODATE AS PERCENTAGE OF NORMAL	RAINY DAYS ≥ 0.3 mm
SOUTHERN REGION							
Balaka Township	0.0	20.2	0	0.0	66.4	0	0
Bvumbwe Met.	2.8	34.0	8	26.6	84.9	31	2
Chichiri Met.	28.6	59.2	48	70.4	225.7	31	2
Chikwawa Boma	10.9	21.9	50	50.9	55.5	92	2
Chileka Airport	19.9	30.7	65	63.7	79.1	81	2
Chingale Agric	13.4	20.8	64	28.3	52.5	54	1
Chiradzulu Agric	7.5	23.5	32	14.6	80.8	18	1
Chizunga Factory	0.0	38.1	0	26.3	115.6	23	0
Lujeri Tea Estate	73.4	90.5	81	341.4	248.4	137	3
Makoka Met	0.4	18.1	2	26.8	57.9	46	1
Mangochi Met.	0.0	7.3	0	25.0	28.5	88	0
Masambanjati Agric	10.5	39.5	27	94.7	105.0	90	1
Mimosa Met.	14.2	49.4	29	90.4	145.1	62	3
Monkey Bay Met.	0.0	3.9	0	0.0	13.9	0	0
Mulanje Boma	64.4	49.8	129	276.9	212.1	131	3
Namiasi Agric	0.0	10.6	0	0.0	22.9	0	0
Namwera Agric	5.7	27.1	21	29.7	61.4	48	1
Nchalo Sucoma	18.3	19.4	94	22.3	50.1	45	1
Ngabu Met.	1.6	15.5	10	22.1	55.5	40	1
Ntaja Met.	9.3	22.0	42	32.5	44.2	74	1
Phalula Agric	0.0	32.4	0	0.0	73.4	0	0
Thuchila Agric	0.0	17.6	0	0.0	66.7	0	0
Thyolo Boma	23.9	26.7	90	62.6	92.1	68	1
Thyolo Met	31.2	24.5	127	48.7	98.9	49	2
Zomba RTC	0.0	20.2	0	24.2	64.0	38	0
CENTRAL REGION							
Chitedze Met.	0.1	32.6	0	1.7	53.5	3	0
Dedza Met	8.9	20.8	43	28.5	41.9	68	1
Dowa Agric	0.0	17.5	0	0.0	33.8	0	0
Dwangwa	0.0	30.3	0	13.6	52.4	26	0
Dzonzi Forest	5.5	22.8	24	60.0	59.6	101	1
K.I.A Met	0.0	26.3	0	0.0	46.6	0	0
Kasiya Agric	44.4	26.9	165	44.4	77.9	57	2
Kasungu Met	0.0	14.8	0	0.2	27.6	1	0
Malomo Agric	0.0	16.2	0	0.5	22.5	2	0
Mkanda Met	75.0	30.8	244	75.0	55.9	134	1
Mponela Agric	0.0	16.8	0	0.0	34.5	0	0
Nathenje Agric	0.0	22.5	0	0.0	44.6	0	0
Nkhotakota Met	0.0	14.0	0	69.0	30.4	227	0
Ntcheu - Nkhande	10.0	17.4	57	10.3	57.9	18	1
Salima Met	0.0	11.9	0	0.8	25.9	3	0
Dedza RTC	0.0	24.8	0	19.8	60.6	33	0
NORTHERN REGION							
Baka Res. Stn.	0.0	6.6	0	0.0	11.2	0	0
Bolero Met	0.0	13.5	0	3.6	23.4	15	0
Chikangawa forest	0.0	27.2	0	24.8	55.7	45	0
Chitipa Met	0.0	16.8	0	0.0	31.1	0	0
Chintheche Agric	0.0	52.5	0	20.0	91.7	22	0
Karonga Met.	0.0	15.6	0	0.0	20.8	0	0
Lupembe	0.0	11.6	0	0.0	17.2	0	0
Mbawa Res. Stn	0.0	24.8	0	0.0	44.8	0	0
Mzimba Met	0.0	24.1	0	0.5	39.1	1	0
Mzuzu Met.	0.0	28.1	0	61.7	76.9	80	0
NkhataBay Met.	0.0	33.1	0	11.6	63.9	18	0
Rumphi Boma	0.0	14.9	0	0.0	23.4	0	0
Vinthukutu Agric	0.0	24.8	0	0.0	39.9	0	0

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 11 TO 20 NOVEMBER 2013

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED (m/s)	RH (%)	EVAP (mm)
KARONGA ADD							
Chitipa	33.0	20.8	34.0	14.5	5.2	41	N/A
Karonga	35.3	23.0	37.0	21.6	2.0	46	N/A
MZUZU ADD							
Bolero	34.7	22.8	36.1	20.0	N/A	32	N/A
Mzuzu	29.8	15.6	31.4	13.0	1.6	52	N/A
Mzimba	32.3	19.8	34.0	16.3	1.5	41	N/A
Nkhata Bay	36.7	19.8	37.7	17.7	1.9	50	N/A
KASUNGU ADD							
Kasungu	33.5	N/A	34.7	N/A	1.2	49	N/A
LILONGWE ADD							
KIA	31.6	19.1	33.2	17.4	2.0	45	11.3
Chitedze	32.9	19.2	34.7	17.6	1.3	47	N/A
Dedza	27.7	18.3	29.4	17.4	3.0	58	N/A
SALIMA ADD							
Salima	36.0	25.6	37.0	24.0	2.2	45	N/A
Nkhotakota	34.1	24.6	35.5	22.7	2.2	48	N/A
MACHINGA ADD							
Makoka	32.6	20.6	35.1	19.0	1.9	52	N/A
Ntaja	35.9	23.4	37.7	21.7	2.5	47	N/A
Mangochi	37.2	25.2	39.0	23.4	2.0	47	N/A
Monkey Bay	35.8	26.6	36.9	25.1	2.5	43	N/A
BLANTYRE ADD							
Chileka	34.0	22.0	37.4	19.6	3.4	52	N/A
Chichiri	32.0	20.2	36.0	16.4	1.6	46	N/A
Bvumbwe	31.5	16.5	34.4	14.1	2.2	54	N/A
Mimosa	34.3	19.4	36.7	17.5	1.2	64	6.7
SHIRE VALLEY ADD							
Ngabu	39.7	24.8	43.7	23.5	3.9	48	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