



REPUBLIC OF MALAWI

Department of Climate Change and Meteorological Services

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HIGHLIGHTS

- Moderate to heavy rains persist over most parts of Malawi ...
- Maize crop was mostly between vegetative and maturity stages...
- Widespread rains expected over Malawi during 11 to 20 February, 2014...

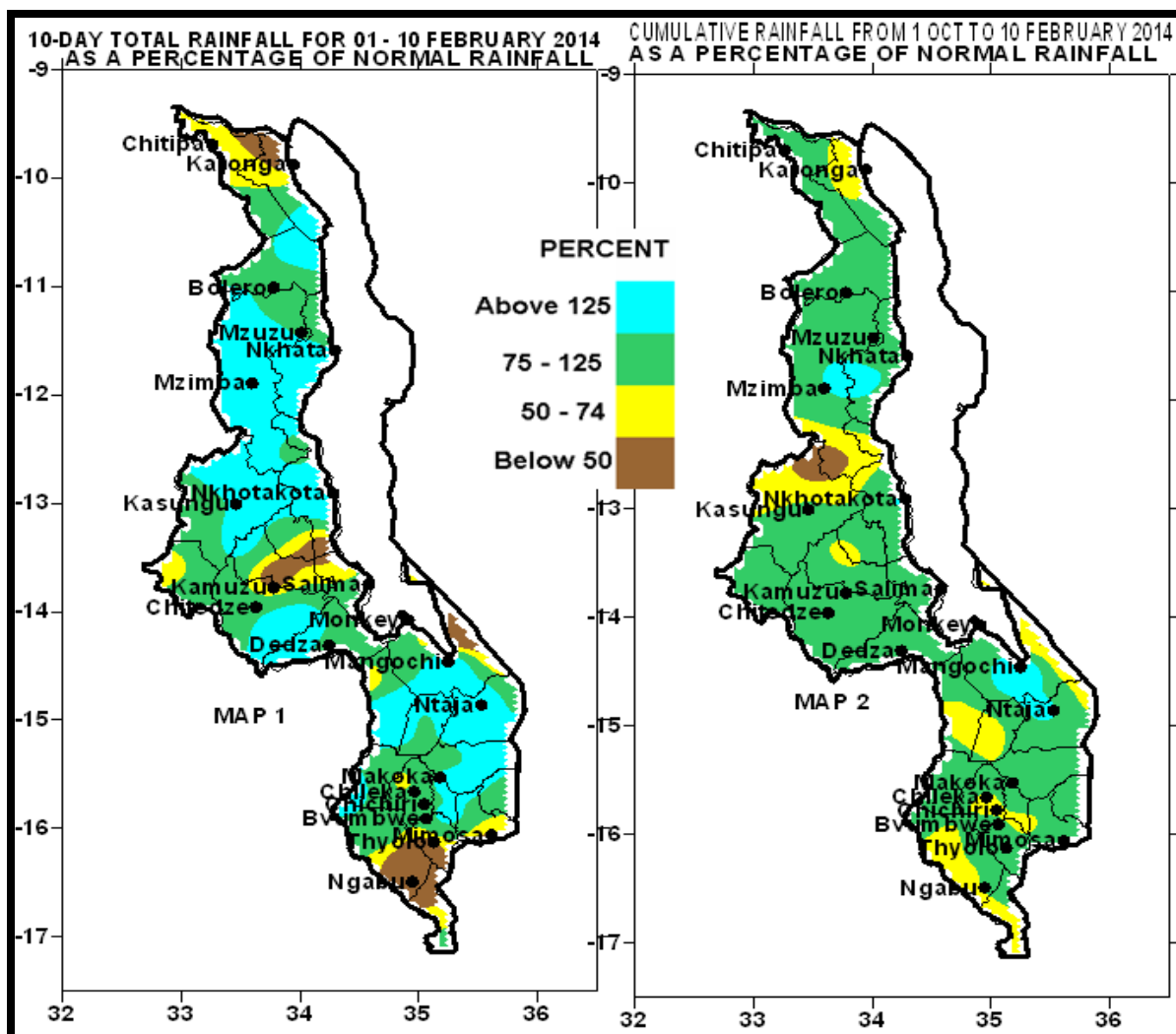


Figure 1: Rainfall Maps for Malawi for 01 to 10 February 2014

1.0 WEATHER SUMMARY AND IMPACTS

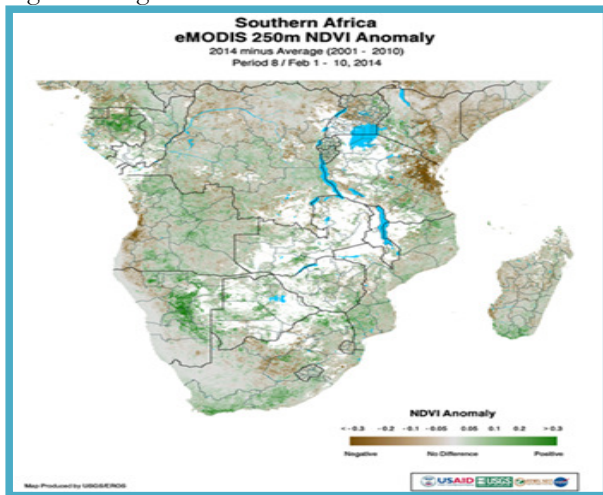
1.1 RAINFALL SITUATION

During the first ten days of February 2014 moist and unstable Congo air mass continued to cover most parts of Malawi. As a result widespread locally heavy rains were reported over most parts of Malawi. During the entire period under review most areas in Malawi had experienced average to above average rainfall performance with many areas accumulating rainfall amounts of more than 100mm. Very high rainfall amounts of up to 130mm were reported at some stations such as Makoka Met (151mm), Mangochi Met (131mm), Mwanza Agric (134mm), Ntaja Met (145mm) and Zomba Agric (157mm), Dzonzzi-mvai Forest (223mm), Nkhotakota Met (253mm) and Chikangawa Forest reported 302mm. More details are on Table 1. Areas that had recorded below average rainfall amounts were confined to a few places mainly over the extreme north and south (yellow and brown Colours on Map 1).

Map 2 shows the situation of cumulative rainfall performance over the country from 1 October 2013 to 10 February 2014. From the map, Malawi has experienced average (green colour on Map 2) to below average (yellow and brown colours on map 2) cumulative rainfall performance. Other details are on Table 1.

1.2 VEGETATION CONDITION

Figure 2: Vegetation Condition over Southern Africa



The vegetation difference from long term average map for Southern Africa for the period 01 to 10 February 2014 showed continued improvement in most areas. (Figure2). This has been attributed to improvement in rainfall performance since December 2013. This has positive implications for pasture conditions and development of crops.

1.3 AIR TEMPERATURE

Generally warm to hot temperatures continued to be observed over Malawi during the first ten days of February 2014. Mean maximum temperatures had ranged from around 23°C at Dedza to 34°C at Ngabu. Mean minimum temperatures for the same period had ranged from 15.8°C at Bvumbwe

to 24.8°C at Nkhotakota. The highest absolute maximum temperature for the period was 36.2°C, observed at Ngabu on 3rd February 2014. For more details see Table 2.

1.4 WIND SPEEDS

At a height of two metres above the ground level the mean wind speeds for the period under review still had ranged from 0.4 to 2.0 metres per second. The lowest mean wind speed was reported at Chichiri in Blantyre while the highest mean wind speed was still recorded at Chileka Airport. For more details refer to Table 2. Dry conditions with high wind speeds result in high evaporation rates.

1.5 RELATIVE HUMIDITY

During the period under review, air over Malawi was generally very moist. Most stations had recorded mean daily relative humidity values of at least 70% except Karonga Met which had a mean daily value of 64%. The highest mean daily relative humidity was reported at Dedza and Kamuzu International Airport (KIA) (85%). More details are on the Table 2. High relative humidity values promote outbreaks of fungal diseases.

2. AGROMETEOROLOGICAL ASSESSMENT

During the first ten days of February 2014 good rainfall amount with good distribution was recorded over most parts of the country. Most areas had recorded rainfall amounts of above 100mm which was enough to satisfy daily water requirements of most crops. The rains also continued to improve water resources and soil moisture reserves and pasture availability for communal grazing. The general crop stand in the fields was reported in good condition particularly where fertilizer has been applied and if good rainfall performance continues up to March then bumper harvests are inevitable this season. Maize reported at various stages of development ranging from vegetative to maturity stages. On farm activities included weeding and application of top dressing fertilizers.

3. PROSPECTS FOR 2013/14 RAINFALL SEASON

The rainfall outlook for January to March 2014 suggests that ***Malawi is likely to experience normal to above normal total rainfall amounts. This forecast is relevant only to seasonal time-scales and relatively large areas. It does not fully account for local and day to day variations in distribution of rainfall.***

4. OUTLOOK FOR 11 TO 20 FEBRUARY 2014

Models for medium range weather forecast suggest that a deep low pressure area in Mozambique Channel will persist and maintain Congo Air mass over Malawi. Therefore widespread locally heavy rains are expected to continue over most parts of Malawi during the second ten days of February 2014.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR 01 TO 10 FEBRUARY 2014

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	95.3	79.3	120	340.1	585.2	58	5
Bvumbwe Met.	107.7	90.3	119	583.6	697.5	84	9
Chichiri Met.	109.4	72.9	150	663.4	867.7	76	9
Chikwawa Boma	65.7	66.7	99	401.5	529.1	76	4
Chikweo Agric.	75.2	78.5	96	492.3	673.8	73	4
Chileka Airport	44.5	88.5	50	393.0	586.5	67	5
Chingale Agric	82.7	83.6	99	516.6	601.3	86	4
Chiradzulu Agric	113.6	98.9	115	550.5	644.3	85	7
Mpilipili	46.1	96.8	48	379.3	588.3	64	6
Makoka Met	151.4	91.7	165	601.7	640.1	94	8
Mangochi Met.	130.7	72.4	181	778.0	418.4	186	5
Masambanjati Agric	36.4	87.8	41	781.7	777.8	101	2
Mimosa Met.	35.4	95.2	37	648.2	867.8	75	4
Monkey Bay Met.	60.5	71.7	84	512.6	399.1	128	4
Mpemba Vet	59.4	84.8	70	417.5	725.9	58	7
Mwanza Boma	134.4	91.2	147	557.4	657.1	85	5
Namiasi Agric	40.4	92.2	44	421.0	515.2	82	5
Namwera Agric	32.2	83.2	39	319.5	655.3	49	2
Nchalo Sucoma	3.6	70.2	5	249.6	434.9	57	3
Ngabu Met.	17.6	69.1	25	374.2	498.4	75	3
Nsanje Boma	65.5	81.8	80	471.3	695.3	68	4
Ntaja Met.	145.3	65.8	221	757.7	561.8	135	7
Phalula Agric	70.6	67.3	105	372.1	548.4	68	6
Satemwa	39.7	87.3	46	772.4	656.5	118	5
Thuchila Agric	110.3	80.2	138	379.6	563.2	67	4
Thyolo Boma	48.6	96.3	50	567.4	702.6	81	4
Thyolo Met	50.5	90.3	56	835.8	711.9	117	6
Zomba RTC	157.1	100.2	157	589.6	767.2	77	6
CENTRAL REGION							
Chitedze Met.	69.1	65.2	106	407.5	544.9	75	8
Dedza Met	76.9	74.9	103	734.8	582.5	126	9
Dowa Agric	33.5	66.2	51	457.4	552.6	83	6
Dwangwa Sugar Corp.	52.0	76.7	68	418.3	661.9	63	4
Dzonzi Forest	222.8	84.4	264	442.7	636.5	70	7
K.I.A Met	32.4	72.1	45	573.1	524.2	109	8
Kasungu Met	91.5	72.0	127	417.9	486.2	86	8
Madisi Agric	114.2	72.9	157	379.4	519.0	73	5
Mkanda Met	42.5	64.6	66	454.1	568.1	80	6
Mlangeni Njolomole	25.5	81.5	31	590.1	593.6	99	7
Mponela Agric	30.1	83.0	36	365.2	510.4	72	5
Mtakataka Airwing	118.3	86.1	137	205.0	489.9	42	7
Nathenje Agric	111.0	56.4	197	531.6	516.1	103	7
Nkhotakota Met	252.8	84.2	300	1005.5	710.9	141	5
Ntcheu - Nkhande	69.5	84.6	82	375.5	672.3	56	8
Ntchisi Boma	28.5	103.8	27	249.8	739.8	34	5
Salima Met	83.9	102.3	82	501.8	683.0	73	6
Dedza RTC	125.2	103.2	121	673.8	653.6	103	5
NORTHERN REGION							
Bolero Met	58.3	51.2	114	387.5	394.7	98	5
Bwengu Agric.	54.4	58.8	93	268.2	465.7	58	7
Chikangawa forest	302.1	69.4	435	880.4	594.8	148	10
Chitipa Met	51.6	87.6	59	578.2	561.1	103	7
Chintheche Agric	108.6	76.0	143	882.3	731.7	121	4
Euthini Agric.	105.3	62.7	168	465.9	470.8	99	6
Karonga Met.	17.1	48.7	35	210.6	436.4	48	6
Mbawa Res. Stn	118.7	66.5	178	355.1	507.3	70	8
Mzimba Met	101.8	67.2	151	672.5	543.5	124	7
Mzuzu Met.	56.1	51.9	108	469.6	527.9	89	7
NkhataBay Met.	76.3	65.3	117	735.8	604.3	122	9
Rumphi Boma	61.7	56.1	110	186.6	429.6	43	6
Vinthukutu Agric	99.2	53.6	185	510.9	494.8	103	3
Zombwe Agric	56.9	48.8	117	461.2	422.2	109	6

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 01 TO 10 FEBRUARY 2014

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED (m/s)	RH (%)	EVAP (mm)
KARONGA ADD							
Chitipa	27.1	17.9	30.0	17.0	1.8	77	N/A
Karonga	32.4	22.1	34.5	19.6	1.8	64	N/A
MZUZU ADD							
Bolero	27.1	18.2	30.6	16.9	N/A	77	N/A
Mzuzu	26.1	16.8	28.5	14.7	1.7	81	N/A
Mzimba	25.4	17.2	29.4	15.5	1.0	81	N/A
Nkhata Bay	30.5	21.2	32.5	19.6	0.6	80	N/A
KASUNGU ADD							
Kasungu	27.0	N/A	30.5	N/A	0.5	80	N/A
LILONGWE ADD							
KIA	26.2	18.4	29.4	16.7	1.2	85	3.5
Chitedze	26.7	19.0	29.7	17.8	0.6	84	N/A
Dedza	23.0	16.2	26.1	15.2	1.3	85	N/A
SALIMA ADD							
Salima	29.4	22.1	31.7	21.2	1.4	81	N/A
Nkhotakota	28.4	24.8	30.4	20.5	1.2	71	N/A
MACHINGA ADD							
Ntaja	29.4	19.3	31.6	20.4	0.5	81	N/A
Mangochi	30.6	22.6	32.2	21.8	1.0	78	N/A
Monkey Bay	29.4	23.3	31.8	22.5	1.4	81	N/A
BLANTYRE ADD							
Chileka	28.7	21.0	30.5	20.0	2.0	79	N/A
Chichiri	27.2	19.3	29.0	17.0	0.4	74	N/A
Bvumbwe	26.0	15.8	28.7	13.9	1.2	80	N/A
Mimosa	31.3	20.7	33.0	19.2	1.0	78	5.1
SHIRE VALLEY ADD							
Ngabu	34.0	24.6	36.2	20.3	1.2	71	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