REPUBLIC OF MALAWI

Ministry of Natural Resources Energy and Mining
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In support of national early warning systems and food security

Be wise be weather-wise

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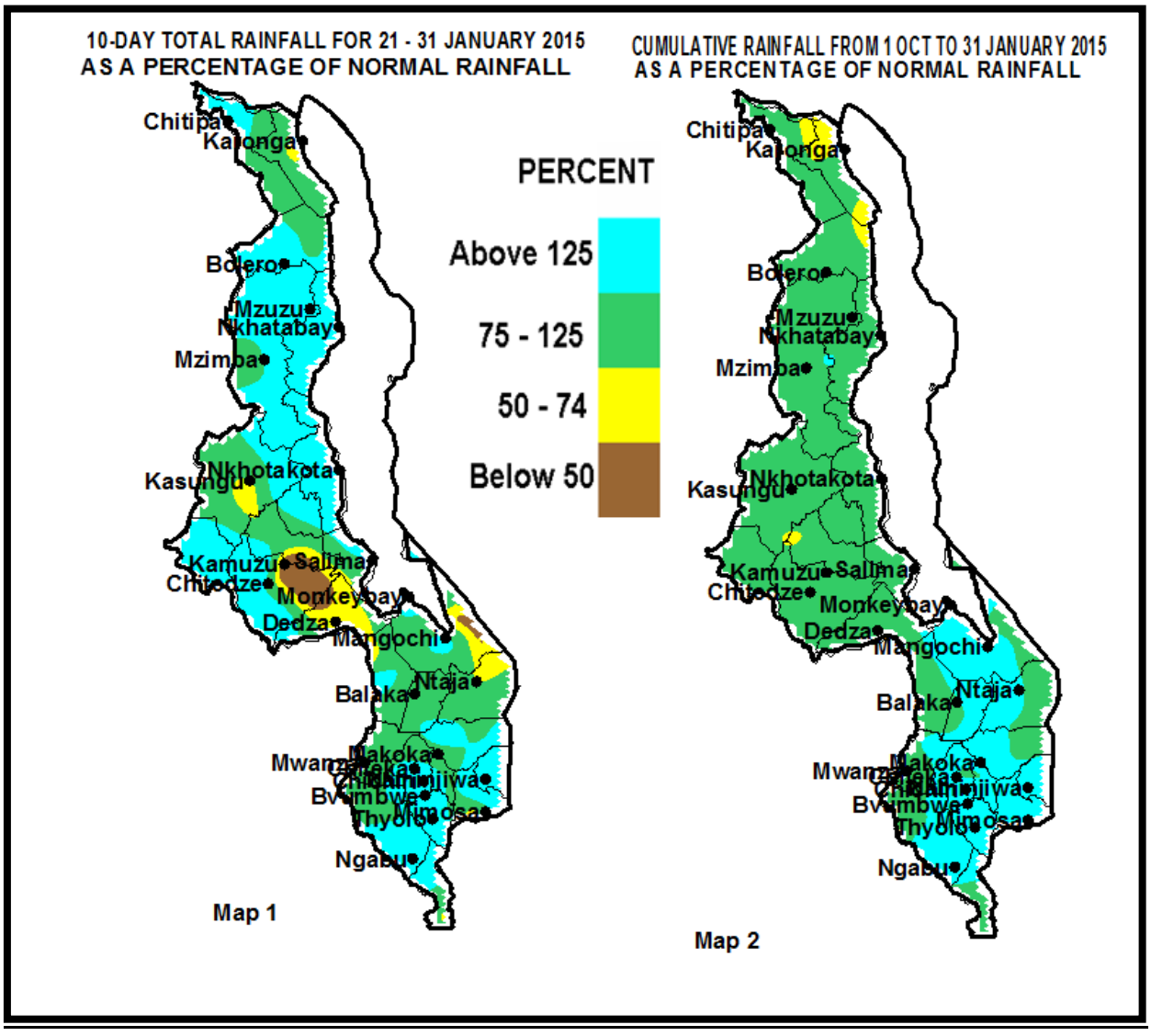
HIGHLIGHTS

- **Widespread locally heavy rains continued…**
- **Maize crop ranged from vegetative to tasseling stages across Malawi…**
- **Widespread rains to persist over Malawi during the period 01 to 10 February 2015...**



Rainfall Maps for 21 to 31 January 2015

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1.0 WEATHER SUMMARY

During the last ten day period of 21 to 31 January 2015 Congo Air mass and Inter Tropical Convergence Zone had maintained locally heavy rains over Malawi.

1.1 RAINFALL SITUATION

Widespread locally heavy rains continued to cover most parts of Malawi during the period 21 to 31 January 2015. High rainfall amounts in excess of **175mm** were accumulated at some stations during the ten day period. The highest amounts were reported in Nkhotakota where Nkhotakota Met had 294mm while Dwangwa Sugar reported 258mm, Mpemba Agric in Blantyre had 284mm, Naminjiwa Agric in Phalombe 270mm, Lifuwu Agric in Salima 183mm and Chikangawa Forest in Mzimba registered 182mm.These high rainfall amounts had maintained above normal rainfall situation (light blue colour on Map 1) and floodwaters the affected districts. Government declared 15 of the 28 districts disaster areas. The worst affected districts include Nsanje, Chikwawa, Phalombe and Zomba. Others include Blantyre, Chiradzulu, Thyolo, Mulanje, Balaka, Machinga, Mangochi, Ntcheu, Salima, Rumphi and Karonga. Cumulative rainfall performance over the country since 1 October 2014 up to 31 January 2015 shows that southern Malawi has received normal to above normal cumulative rainfall amounts while the centre and north has achieved normal cumulative rainfall amounts. For more details refer to Table 1 and Map 2


Figure 1: Floods

1.2 AIR TEMPERATURE

Warm to hot tempratures were maintained over most parts of Malawi during the period 21 to 31 January 2015. Mean maximum temperatures had ranged from 23°C at Dedza to 35°C at Ngabu Mean minimum temperatures had ranged from 14°C at Dedza to 26°C at Ngabu. The highest absolute maximum temperature for the period was 35°C recorded at Ngabu and Karonga. For more details refer to Table 2.

1.3 WIND SPEEDS

Mean wind speeds at a height of two metres above the ground level had ranged from 2.5 Kilometres per hour at Nkhata Bay and Chitedze to 7.9 Kilometres per hour at Chileka. For more details refer to Table 2.

1.4 RELATIVE HUMIDITY

Humid conditions continued over Malawi during the period 21 to 31 January 2015. Daily average relative humidity values had ranged from 73% at Karonga to 85% at Kasungu. Details are in Table 2.

1.5 SUNSHINE HOURS

Due to continued cloudiness mean durations of bright sunshine hours across Malawi were still very low. Most areas had experienced daily average sunshine hours of below five hours. Details are on the Table 2.

1.6 VEGETATION CONDITION

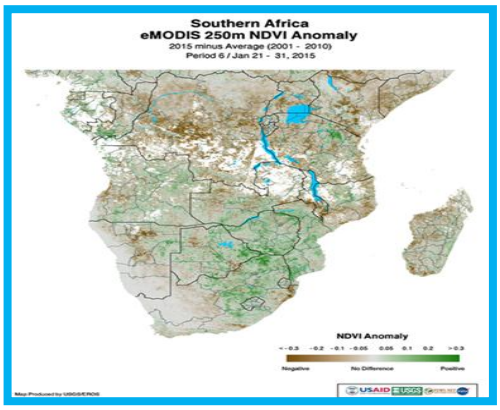

Figure 2: Vegetation Condition over Southern Africa

The vegetation condition map for Southern Africa up to 31 January 2015 showed that there was an improvement in vegetation condition over most parts of the region including Malawi. (Figure 2). As such, natural pastures were readily available and in good condition.

2.0 AGROMETEOROLOGICAL ASSESSMENT AND IMPACTS

The country continued to experience incessant locally heavy rainfall during the last ten days of January 2015. These rains had caused leaching of soil nutrients and soil water–logging conditions and intense flooding that resulted in loss of lives, destroyed homes, road and telecommunication infrastructure, washed away thousands of hectares of crop fields and livestock. Apart from that the incessant rains had hampered farming operations like weeding and spraying of pesticides Families in the affected areas risk harvesting nothing or very little this year, leaving them food insecure. Farmers in the affected districts are advised to plant alternative crops like sweet potatoes and cassava as well as early maturing crop varieties.

Crops like maize were between vegetative and tasseling stages. The general crop stand in the fields was being threatened by incessant heavy rains and lack of sunshine hours, a situation that was likely to affect the quality of some crops like tobacco. Already in some areas despite applying fertilizer, crops were reported to have started yellowing due to incessant heavy rains. The main agricultural activities in the fields included banking and finalizing top dressing fertilizer application.

3. OUTLOOK FOR 01 TO 10 FEBRUARY 2015

The combined effects of the Inter-Tropical Convergence Zone (ITCZ) and Congo air mass will maintain widespread local heavy rains over Malawi during the period 01 to 10 February 2015.

4 UPDATED FORECAST FOR 2014/15 RAINFALL SEASON

During the period February to April (FMA) 2015, the northern half of Malawi is expected to receive normal total rainfall amounts while the southern half is expected to receive normal to above normal total rainfall amounts.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR 21 to 31 JANUARY 2015

ADD	RAINFALL STATION	ACTUAL DEKADAL TOTAL RAINFALL (mm)	DEKADAL NORMAL (EXPECTED) RAINFALL (mm)	ACTUAL TOTAL AS PERCENTAGE OF NORMAL (EXPECTED) RAINFALL	ACTUAL TOTAL RAINFALL TODATE (mm)	NORMAL (EXPECTED) RAINFALL TODATE (mm)	ACTUAL TODATE AS PERCENTAGE OF NORMAL (EXPECTED) RAINFALL	RAINY DAYS ≥ 0.3 mm
KARONGA	Chitipa Met	117.4	75.3	156	389.3	473.5	82	6
	Karonga Met.	31.9	56.0	57	254.2	387.7	66	2
	Vinthukutu Agric	69.1	58.8	118	249.6	441.2	57	4
MZUZU	Bolero Met	90.4	53.3	170	354.1	343.5	103	10
	Bwengu Agric.	107.3	74.0	145	359.9	406.9	88	7
	Chikangawa forest	182.1	73.1	249	748.9	525.4	143	11
	Chintheche Agric	158.8	91.6	173	475.4	655.7	73	7
	Mbawa Res. Stn	83.1	63.2	131	388.2	440.8	88	9
	Mzimba Met	50.0	68.6	73	344.9	476.3	72	10
	Mzuzu Met.	91.0	68.9	132	457.4	476.0	96	8
	NkhataBay Met.	144.0	64.2	224	481.6	539.0	89	10
	Rumphi Boma	67.0	70.0	96	346.9	373.5	93	8
	Zombwe Agric	134.3	54.2	248	374.6	373.4	100	8
KASUNGU	Kasungu Met	49.3	70.0	70	327.7	414.2	79	9
	Lisasadzi Agric	54.2	80.9	67	429.3	469.7	91	5
	Malomo Agric	109.6	55.1	199	302.0	434.8	69	9
	Madisi Agric	39.2	74.3	53	299.9	446.1	67	4
	Mchinji Boma	174.4	79.2	220	468.3	586.7	80	8
	Mkanda Met	107.1	71.0	151	398.3	503.5	79	5
	Mponela Agric	84.4	77.2	109	406.5	427.4	95	6
	Ntchisi Boma	114.3	103.3	111	454.3	636.0	71	11
SALIMA	Dwangwa Sugar	258.3	84.7	305	565.6	585.2	97	10
	Lifuwu	183.2	100.7	182	528.9	573.3	92	7
	Nkhotakota Met	294.3	97.8	301	612.5	626.7	98	11
	Salima Met	109.9	99.2	111	450.9	580.7	78	7
LILONGWE	Chitedze Met.	66.2	79.2	84	356.6	479.7	74	6
	Dedza Met	67.2	102.1	66	491.4	507.6	97	6
	Dzonzi Forest	93.3	80.8	115	565.9	552.1	102	6
	K.I.A Met	9.9	69.5	14	439.7	452.1	97	5
	Kasiya Agric	158.0	67.3	235	449.3	540.7	83	5
	Mlangeni Njolomole	37.7	73.6	51	N/A	512.1	N/A	3
	Mtakataka Airwing	108.4	60.2	180	489.0	403.8	121	7
	Nathenje Agric	23.8	90.8	26	406.1	459.7	88	4
	Ntcheu - Nkhande	159.0	84.6	188	478.7	587.7	81	5
	Dedza RTC	58.6	116.3	50	439.4	550.4	80	6
MACHINGA	Balaka Township	81.5	102.2	80	613.8	505.9	121	6
	Chancellor College	83.9	103.4	81	739.7	704.9	105	7
	Chikweo Agric.	68.9	98.7	70	453.2	595.3	76	5
	Chingale Agric	146.3	90.7	161	806.6	517.7	156	7
	Mpilipili (Makanjila)	128.6	78.9	163	590.8	491.5	120	4
	Makoka Met	59.6	89.6	67	718.5	548.4	131	6
	Mangochi Met.	98.4	70.7	139	774.9	346.0	224	5
	Monkey Bay Met.	124.0	74.0	168	663.6	327.4	203	5
	Namiasi Agric	44.6	75.1	59	544.1	423.0	129	5
	Namwera Agric	33.3	100.3	33	443.7	572.1	78	6
	Ntaja Met.	67.1	91.4	73	678.6	496.0	137	4
	Phalula Agric	92.3	74.1	125	591.2	481.1	123	6
	Zomba RTC	91.1	107.3	85	966.9	667.0	145	7
BLANTYRE	Bvumbwe Met.	125.3	106.7	117	967.7	607.2	159	9
	Chichiri Met.	188.3	53.8	350	1107.8	794.8	139	5
	Chileka Airport	92.1	81.3	113	621.9	498.0	125	8
	Chiradzulu Agric	103.7	99.6	104	678.9	545.4	124	7
	Lujeri Tea Estate	183.8	134.8	136	1690.3	1076.1	157	9
	Masambanjati Agric	123.3	93.9	131	1080.8	690.0	157	7
	Mimosa Met.	158.0	117.1	135	1306.7	772.6	169	9
	Mpemba Agric	284.4	95.8	297	1294.1	641.1	202	8
	Mulanje Boma	74.3	145.4	51	1531.4	957.5	160	7
	Mwanza Boma	64.4	94.4	68	N/A	565.9	N/A	6
	Naminjiwa Agric	270.5	96.5	280	875.8	554.6	158	6
	Satemwa Tea Estate	99.2	90.3	110	917.1	569.2	161	8
	Thyolo Met	169.9	103.9	164	753.0	621.6	121	8
SHIRE VALLEY	Chikwawa Boma	69.6	74.5	93	611.0	462.4	132	6
	Nchalo	117.9	50.7	233	679.2	364.7	186	4
	Ngabu Met.	126.5	61.2	207	601.5	429.3	140	6
	Nsanje Boma	58.9	84.8	69	554.0	613.5	90	5

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR THE PERIOD 21 TO 31 JANUARY 2015

ADD/ STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED Km/hour	RH %	SUN SHINE HOURS	Eo mm per day	Et mm per day	RAD-TION calcm-² p/day
KARONGA ADD										
Chitipa	26.9	17.5	28.6	16.8	6.8	78	6.2	6.0	4.7	8.6
Karonga	30.5	20.8	35.0	19.1	4.7	73	5.2	6.1	4.9	7.9
MZUZU ADD										
Bolero	28.2	18.7	29.7	16.5	4.3	74	5.0	5.7	4.6	7.8
Mzuzu	26.0	17.0	28.2	16.1	4.7	81	4.8	5.2	4.1	7.7
Mzimba	26.0	17.4	28.2	16.2	2.9	81	5.2	5.5	4.3	8.0
Nkhata Bay	29.8	21.2	32.0	20.0	2.5	81	4.4	5.5	4.4	7.4
KASUNGU ADD										
Kasungu	29.8	19.9	29.5	17.1	6.1	85	3.5	5.2	4.1	6.9
LILONGWE ADD										
KIA	25.9	18.0	27.2	16.1	5.4	78	3.6	5.0	4.0	6.9
Chitedze	27.1	18.7	28.6	16.8	2.5	77	3.5	5.0	4.0	6.8
Dedza	22.9	14.4	24.9	12.1	6.5	80	4.6	5.0	3.9	7.6
SALIMA ADD										
Nkhota kota	27.7	24.2	28.7	19.7	4.7	83	4.3	5.8	4.6	7.4
Salima	28.8	21.3	30.0	19.7	7.2	76	4.8	5.9	4.7	7.7
MACHINGA ADD										
Monkey Bay	28.7	22.5	30.1	21.6	6.8	76	6.3	6.6	5.3	8.7
Mangochi	30.0	N/A	31.5	N/A	4.3	77	6.5	4.9	3.8	8.8
Ntaja	28.0	20.7	29.2	19.6	5.0	78	4.6	5.7	4.5	7.6
Makoka	26.4	18.3	28.6	15.4	4.0	81	5.5	5.6	4.4	8.2
BLANTYRE ADD										
Bvumbwe	24.2	17.0	26.9	14.7	5.0	81	4.3	5.0	4.0	7.4
Chichiri	26.3	18.1	32.0	15.5	4.0	78	4.5	5.3	4.2	7.5
Chileka	27.8	19.0	30.1	13.9	7.9	78	5.7	6.1	4.8	8.3
Mimosa	29.1	19.4	32.0	16.4	3.6	79	5.3	5.8	4.6	8.0
SHIRE VALLEY ADD										
Ngabu	34.8	26.3	35.0	20.6	7.2	74	5.0	7.0	5.7	7.9

Glossary of some terms on this table

- Eo = Potential Evaporation, Et = Potential Evapotranspiration and 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