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HIGHLIGHTS

- **Reduced rainfall experienced over most parts of Malawi …**
- **Maize crop still doing well between vegetative and maturity stages…**
- **Wet weather expected over northern half during 21 – 28 February 2013…**

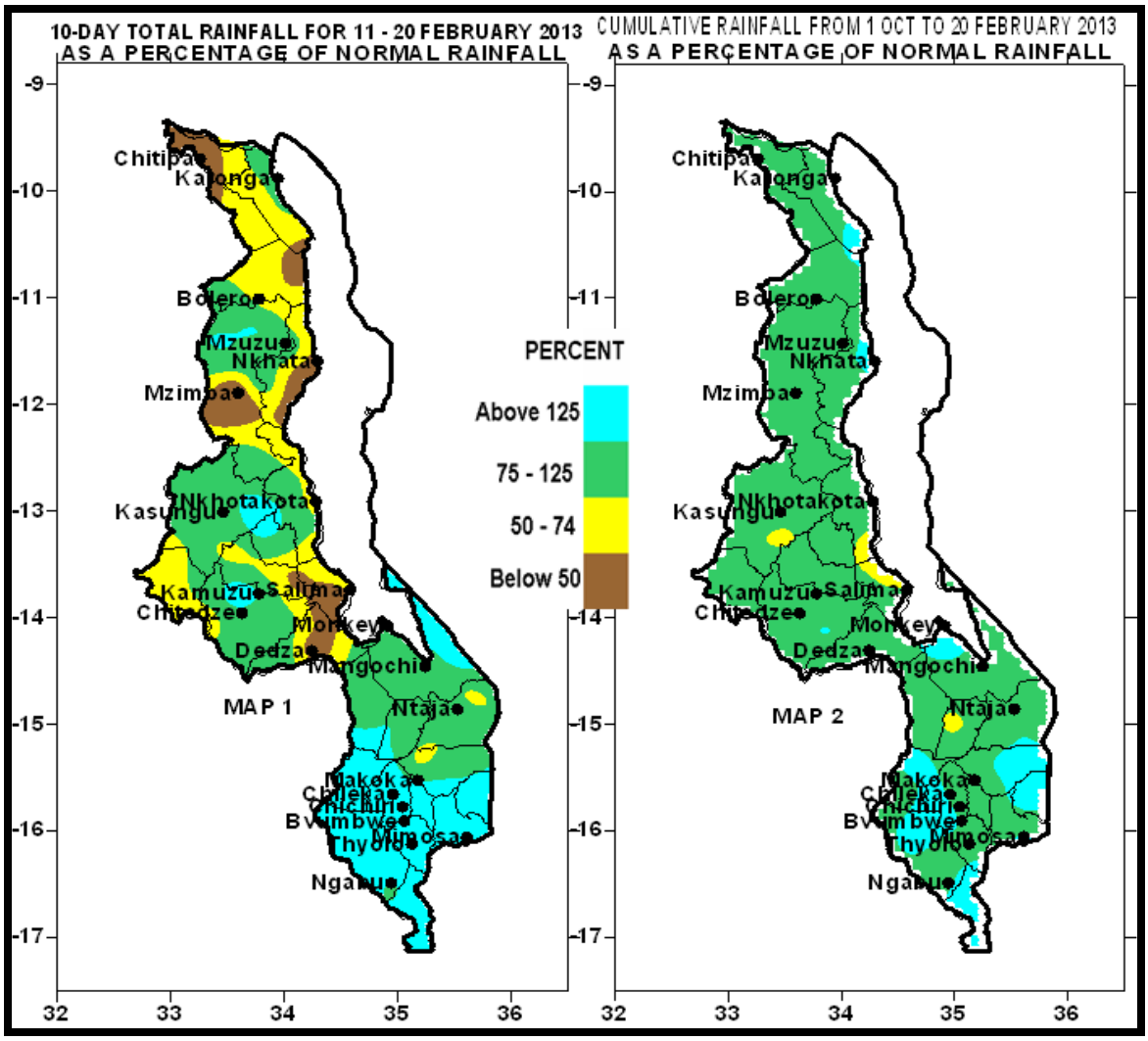

Figure 1: Rainfall Maps for Malawi for 11 – 20 February 2013

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1.0 WEATHER SUMMARY AND IMPACTS

1.1 RAINFALL SITUATION

During the second ten days of February the main rain bearing systems had relaxed over most parts of Malawi except in the extreme southern Malawi. As there was a decline in rainfall performance over most parts of Malawi except for extreme southern areas of the country. Areas that recorded above average rainfall were confined to districts located south of Balaka. Very high rainfall amounts in excess of 200mm were mostly confined to southern Malawi where places like Bvumbwe had reported 249mm. Chizunga Factory 278mm, Mpemba Vet 289mm and Mulanje Boma 292mm. See more details in Table 1. This represented above normal rainfall situation (represented by light blue colours on Map 1).

Map 2 indicates the cumulative rainfall performance for the country since 1 October 2012. The map shows that most areas in Malawi have achieved normal to above normal cumulative rainfall (green and light blue colours on Map 2) with a few pockets of below average rainfall (less than 75% of the expected cumulative rainfall amounts) by 20 February 2013. For more details refer to Table 1 and Map 2.

1.2 VEGETATION CONDITION

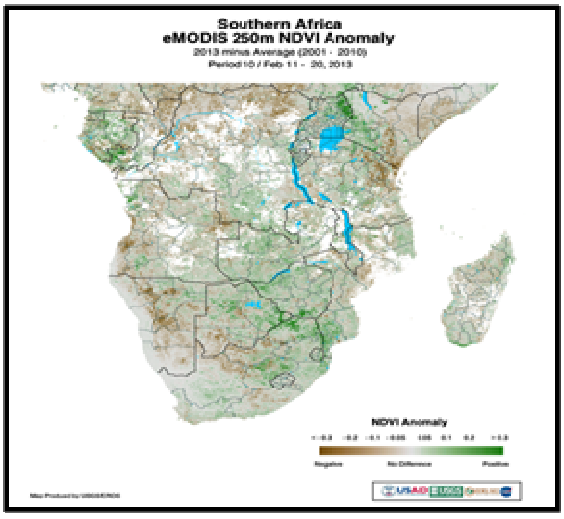

Figure 2: Vegetation Condition over Southern Africa

The vegetation diference from long term average map for Southern Africa for the period 11 to 20 February 2013 showed continued improvement in green biomass in most parts of the region (Figure2). Pockets of negative anomalies are closing up in the region. This has been n aattributed to normalization of the main rainfall seasosn.

1.3 AIR TEMPERATURE

Generally warm to hot tempratures continued to be experienced over the Malawi during the second ten days of February 2013. Mean maximum temperatures ranged from 23.0°C at Dedza to 31.6°C at Mkondezi (Nkhata bay Met). Compared to the previous dekad, maximum temperatures were almost the same as during the previous reporting period due to more cloudiness and the rainfall that was being received. Mean absolute minimum temperatures ranged from around 14.7°C at Dedza to 21.7°C at Mangochi Met (Table 2). The highest absolute maximum temperature for the period was about 34.5°C, observed at Ngabu in Shire Valley.

1.4 WIND SPEEDS

Mean wind speeds at a height of two metres above the ground level ranged from 0.6 to 2.9 metres per second. The lowest mean wind speed was reported at Nkhata Bay and Ngabu while the highest mean wind speed was recorded at Mzuzu Met Refer to Table 2.

1.5 RELATIVE HUMIDITY

During the period under review, air over Malawi was fairly humid. Mean daily relative humidity values ranged from 58% at Kasungu to 88% at Chitipa See more details in Table 2.

2.0 AGROMETEOROLOGICAL ASSESSMENT

During the second ten days of February 2013 light to moderate rainfall amounts fell over most parts of the central and northern Malawi while the south generally continued to experience high rainfall intensities. Most areas in the south had recorded rainfall amounts of above 100mm which was sufficient 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 of livestock. The general crop stand in the fields was reported in good condition with Maize reported at various stages of development ranging from vegetative to maturity and drying stages. In most parts of the country, the maize crop was reported to be doing well particularly where fertilizer and good crop husbandry practices have been applied. If rainfall continues performing well up to March then most farmers will have bumper harvests this season. The following is an agrometeorological impact

assessment by Agriculture Development Division (ADD):

2.1 SHIRE VALLEY ADD

High intensity rainfall continued falling in the ADD causing above average rainfall situation during the second ten days of February 2013. These rains facilitated crop and pasture growth and development as well as regeneration of the natural vegetation for communal grazing of livestock. The main agricultural activities in the ADD included weeding. Maize crop ranged from vegetative to tasseling and cob formation stages

2.2 BLANTYRE ADD

Good rains for agricultural production continued falling in the ADD during the period 11 to 20 February 2013. Most areas had registered high intensity rainfall. These rains continued to satisfy crop water needs and facilitated crop growth and development. The Maize crop was reported doing well particularly where fertilizer and good crop husbandry practices have been applied. Maize crop was reported to be at varying stages of development ranging from tasseling to maturity and drying for the early planted crops. Green harvests in progress in most parts of the ADD. This will improve household food availability.

2.3 MACHINGA ADD

Good rains for agricultural production were reported in most parts of the ADD during the period 11 to 20 February 2013. The Maize crop was reported doing well particularly where good crop husbandry practices has been applied. Maize crop was reported in good condition and ranged from vegetative to maturity stages.

2.4 LILONGWE ADD

Most parts of the Lilongwe ADD had recorded moderate rains during the second ten days of February 2013. These rains had facilitated crop growth and development. The major agricultural activities in the ADD included weeding and banding. Maize crop was reported doing well and had ranged from tasseling to maturity stages.

2.5 SALIMA ADD

During the period under review Salima ADD had recorded moderate rainfall with good distribution. Reports from the Salima and Nkhotakota districts had indicated that Maize was doing very well especially where good crop husbandry has been applied. The crop had ranged from tasseling to maturity stages.

2.6 KASUNGU ADD

Good rains for agriculture production fell in most parts of the ADD during the period under review. These rains were sufficient to satisfy daily water requirements of crops. Maize crop ranged from tasseling to maturity stages.

2.7 MZUZU ADD

Most areas in Mzuzu ADD continued to record reduced rainfall (Yellow and Brown colours on Map 1)during the period under review. However, there were no reports of soil moisture stress and maize was reported doing very well. Due to variations on start of planting rains, Maize crop in the ADD ranged from vegetative and tasseling stages to maturity for the early planted hybrid crops. .

2.8 KARONGA ADD

Karonga ADD had experienced light and mostly below average rainfall during the period under review. Crops had to survive from residual soil moisture. The Maize crop was reported doing well particularly in Chitipa district where most of the maize is grown. Generally Maize crop was reported to be at varying stages of development ranging from vegetative to tasseling stages.

3. PROSPECTS FOR 2012/13 RAINFALL SEASON

The summary of the 2012/2013 rainfall outlook is that ***"Normal total rainfall amounts are expected over most parts of Malawi during the 2012/2013 rainfall season***". The forecast which was reviewed and updated in December 2012 still maintained that the greater part of the country will still experience normal to above normal total rainfall amounts by end of the summer rainfall season.

This forecast covers the rainfall season from October 2012 to March 2013 and does not fully account for local and month to month variations in distribution of rainfall such as localised dry spells and flash floods.

The seasonal forecast is issued to users as a planning tool. For day to day operations, users are advised to make use of the available short to medium range forecasts and the 10-day Rainfall and Agrometeorological bulletin issued by the Department.

4. OUTLOOK FOR 21 – 28 FEBRUARY 2013

Models for short and medium term weather forecasts suggest that an active rain-belt will be confined to northern half of Malawi and a ridge of high pressure from the Indian Ocean will be responsible for mostly dry weather over the southern half of Malawi during the forecast period. Therefore good rains for agriculture production are expected to be confined to northern Malawi and relatively dry weather over the south during the period 21 to 28 February 2013.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 2 OF FEBRUARY 2013: PERIOD 11 – 20TH

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	58.7	46.6	126	363.2	631.8	57	6
Bvumbwe Met.	249.2	73.8	338	969.4	771.3	126	7
Chancellor College	67.7	74.7	91	1131.6	885.8	128	7
Chichiri Met.	168.6	52.3	322	886.5	920.0	96	6
Chikwawa Boma	235.7	41.5	568	818.4	570.6	143	7
Chikweo Agric.	31.1	65.1	48	707.0	738.9	96	5
Chileka Airport	111.8	50.4	222	803.0	636.9	126	7
Chingale Agric	31.6	68.2	46	771.9	669.5	115	4
Chiradzulu Agric	139.1	66.2	210	682.3	710.5	96	5
Chizunga Factory	277.9	86.4	322	930.2	897.5	104	6
Mpilipili	193.8	62.7	309	586.3	651.0	90	6
Makhanga Met	105.6	52.0	203	888.6	530.7	167	7
Makoka Met	77.7	63.1	123	660.7	703.2	94	7
Mangochi Met.	50.2	65.0	77	629.7	483.4	130	6
Masambanjati Agric	170.8	95.3	179	1002.5	873.1	115	5
Mimosa Met.	251.6	71.9	350	1284.5	939.7	137	7
Monkey Bay Met.	59.1	46.7	127	750.2	445.8	168	7
Mpemba Vet	288.9	68.0	425	1117.4	793.9	141	6
Mulanje Boma	292.2	86.9	336	1238.3	1153.9	107	7
Mwanza Boma	190.2	66.0	288	784.3	723.1	108	7
Namiasi Agric	40.6	50.6	80	613.6	565.8	108	2
Naminjiwa Agric	120.8	71.3	169	990.2	709.5	140	7
Namwera Agric	100.6	61.7	163	791.1	717.0	110	6
Nankumba Agric	68.0	63.6	107	68.0	623.8	11	3
Nchalo Sucoma	166.8	46.4	359	524.2	481.3	109	7
Neno Agric	167.1	68.8	243	1093.4	790.5	138	6
Ngabu Met.	42.6	51.3	83	609.5	549.7	111	4
Ntaja Met.	57.7	56.7	102	799.7	618.5	129	6
Phalula Agric	73.1	57.4	127	630.9	605.8	104	6
Satemwa Tea Est. No.1	249.3	76.1	328	388.7	732.6	53	7
Thyolo Boma	176.7	78.7	225	933.4	781.3	119	7
Thyolo Met	228.2	73.8	309	772.6	785.7	98	7
Zomba RTC	76.1	70.4	108	1139.9	837.6	136	7
CENTRAL REGION							
Bunda College	84.0	64.7	130	807.7	626.3	129	2
Chileka Namitete	37.5	68.3	55	629.2	677.3	93	3
Chitedze Met.	66.9	57.7	116	677.8	602.6	112	4
Dedza Met	28.7	74.7	38	678.1	657.2	103	7
Dowa Agric	26.7	56.4	47	549.6	609.0	90	4
Dwangwa	36.5	60.1	61	548.6	722.0	76	4
Dzonzi Forest	79.0	70.9	111	872.6	707.4	123	6
Kaluluma DTC	64.1	59.0	109	547.1	576.3	95	5
K.I.A Met	76.5	61.9	124	743.3	586.1	127	5
Kasiya Agric	97.0	63.6	153	675.1	668.8	101	2
Kasungu Met	71.6	63.3	113	520.8	549.5	95	6
Lifuwu	83.8	91.1	92	457.6	793.4	58	5
Lisasadzi	52.9	63.9	83	387.7	611.4	63	5
Malomo Agric	110.6	65.7	168	614.1	581.5	106	7
Madisi Agric	46.9	75.9	62	511.1	594.9	86	4
Mchinji Boma	38.5	74.7	52	621.0	723.5	86	4
Mlangeni Njolomole	84.7	87.2	97	670.4	680.8	98	6
Mponela Agric	54.0	71.5	76	530.6	581.9	91	4
Nathenje Agric	85.3	73.4	116	723.7	589.5	123	3
Natural Res. College	53.1	76.2	70	587.0	623.9	94	2
Nkhotakota Met	45.4	73.6	62	733.0	784.5	93	5
Ntcheu - Nkhande	60.8	75.7	80	791.3	748.0	106	7
Ntchisi Boma	60.3	90.3	67	559.7	830.1	67	6
Salima Met	23.2	91.7	25	638.8	774.7	82	5
Dedza RTC	35.0	68.8	51	685.2	722.4	95	5
NORTHERN REGION							
Baka Res. Stn.	41.6	63.4	66	377.1	560.9	67	5
Bolero Met	40.3	60.7	66	591.5	455.4	130	6
Bwengu Agric.	39.0	66.2	59	487.6	531.9	92	6
Chikangawa forest	65.5	75.6	87	578.3	670.4	86	8
Chitipa Met	24.3	77.5	31	583.9	638.6	91	5
Chintheche Agric	9.8	77.4	13	751.2	809.1	93	1
Emfeni Agric	54.2	49.2	110	557.8	562.9	99	4
Ekwendeni Agric.	60.0	78.6	76	212.8	566.7	38	3
Euthini Agric.	85.0	63.4	134	592.5	534.2	111	5
Karonga Met.	65.2	49.1	133	519.6	485.5	107	6
Lupembe	52.5	58.4	90	494.7	440.6	112	2
Mbawa Res. Stn	24.8	66.0	38	606.0	573.3	106	5
Mzimba Met	11.1	79.3	14	474.1	622.8	76	4
Mzuzu Met.	65.5	65.3	100	664.3	593.2	112	7
NkhataBay Met.	19.8	62.1	32	1004.5	666.4	151	5
Rumphi Boma	38.3	65.2	59	490.0	494.8	99	4
Vinthukutu Agric	28.0	58.6	48	758.9	553.4	137	2
Zombwe Agric	82.7	62.6	132	563.1	484.8	116	5

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR THE PERIOD 11 TO 20 FEBRUARY 2013

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (ºC)	ABS MIN (°C)	WIND SPEED (m/s)	RH (%)	EVAP (mm)
KARONGA ADD							
Chitipa	27.4	18.0	28.6	17.1	1.8	88	N/A
Karonga	30.9	21.4	32.7	20.1	1.2	71	N/A
MZUZU ADD							
Bolero	28.7	18.3	30.0	14.8	N/A	75	N/A
Mzuzu	26.5	17.3	28.2	15.6	2.9	79	N/A
Mzimba	26.5	17.3	28.6	16.0	1.2	78	N/A
Nkhata Bay	31.6	21.5	33.2	19.9	0.6	77	N/A
Kasungu	28.4	18.1	30.3	16.6	1.2	58	N/A
LILONGWE ADD							
KIA	26.7	17.7	27.8	16.6	1.4	79	5.2
Chitedze	27.6	18.9	29.3	16.9	0.8	82	N/A
Dedza	23.0	15.5	25.8	14.7	1.9	85	N/A
SALIMA ADD							
Salima	29.7	21.8	30.5	20.6	1.4	82	N/A
Nkhotakota	29.1	21.7	30.6	20.1	1.5	75	N/A
MACHINGA ADD							
Makoka	25.9	18.6	29.1	17.7	1.6	86	N/A
Ntaja	27.9	20.8	30.2	19.6	1.1	84	N/A
Mangochi	29.8	22.1	32.2	21.1	1.0	78	N/A
Monkey Bay	29.1	22.4	30.5	21.7	N/A	N/A	N/A
BLANTYRE ADD							
Chileka	26.8	19.9	31.1	18.9	2.3	87	N/A
Chichiri							N/A
Bvumbwe	23.2	16.1	25.7	15.3	1.4	86	N/A
Mimosa	28.2	20.3	32.8	17.7	1.1	86	3.6
SHIRE VALLEY ADD							
Ngabu	30.7	N/A	34.5	N/A	0.6	75	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 bserved for a given number of days (calendar month) of a specified period of months (years).
- convert Meters Per Second (mps) to Kilometers per hour (Km/hr) = mpsx3.6