



### 1.1 RAINFALL SITUATION

During the period 11 to 20 January 2017, most areas in Malawi had recorded moderate to locally heavy rainfall amounts with an average of seven rainy days. During the period many places particularly over the south and some parts of central Malawi had accumulated at least 125mm of rainfall and such areas included Satemwa Tea Estate in Thyolo which had recorded 238mm, Neno Agric 214mm, Mangoch Met 213mm, Mlangeni – Njolomole 206mm, Mwanza Agric 201mm, Lujeri Tea Estate 187mm, Makanjila Agric 174mm, Thyolo and Zomba Agric 101mm, Lifuwu Agric 163mm, Salima Met 148mm, Mulanje Agric 147mm, Malomo Agric 143mm, Namiasi Agric 139mm, Monkey Bay Met recorded 138mm, Makoka Met 135mm, Namwera Agric 135mm, Chizunga Factory 130mm, Chichiri Met 129mm, Mtakataka Airwing 127mm and Nsanje Agric 125mm. However, some parts of the north particularly in Rumphu, Karonga and Chitipa had registered sub-optimal rainfall amounts. More details are in Table 1 and Map 1.

Map 2 shows spatial cumulative rainfall performance for the period 1st October 2016 up to 20 January 2017. The map shows poor seasonal rainfall performance over most areas in northern Malawi and better seasonal rainfall performance over most areas in the south and some parts of central Malawi (Green colour on Map 2).

### 1.3 AIR TEMPERATURE

Warm to hot temperatures continued to prevail over Malawi during the second ten days of January 2017. Mean daily maximum temperatures had ranged from 23°C at Dedza Met to 33°C at Ngabu Met. while the mean minimum temperatures had ranged from 16°C at Dedza to 24°C at Ngabu Met. During the period the highest maximum temperature was still registered at Ngabu (35°C) in Chikwawa while the lowest temperature was 15.3°C reported at Dedza Met. For more details see Table 2.

### 1.4 WIND SPEEDS

During the second ten days of January 2017, generally light to moderate wind speeds were recorded over Malawi. Average wind speeds measured at a height of two metres above the ground level across the country had varied from 1.1km per hour at Mangochi Met to 9.4km per hour at Dedza Meteorological station. More details are in Table 2.

### 1.5 RELATIVE HUMIDITY

During the period 11 to 20 January 2017, daily average relative humidity values recorded from various meteorological stations in Malawi had ranged from

72% at Mimosa and Kasungu Met stations to 87% at Makoka Met station. Details are on the Table 2.

### 1.6 SUNSHINE HOURS

Malawi had experienced low sunshine hours during the second ten days of January 2017. The daily average sunshine hours across Malawi had ranged from 1.8 hours at Makoka Met to 5.1 hours at Karonga Met. As a result most areas in Malawi had registered lower values of solar radiation. The highest solar radiation was around 8 calories cm<sup>-2</sup> per day reported at Karonga Airport. Details are on Table 2.

## 2. AGROMETEOROLOGICAL ASSESSMENT

Optimal rainfall amounts for agricultural production were received in most parts of Malawi during the second 10-days of January 2017. These rains apart from supporting crop growth and development have significantly improved pasture availability for animal production, water resources and soil moisture reserves. Crops were reported doing well at various developmental stages. In areas where maize crop was planted earlier, the crop has attained flowering stage and required a lot of moisture. In areas where planting rains commenced late the crop was reported at vegetative stage and farmers continued weeding and application of basal and top dressing fertilizers. Despite late start of the wet season in some parts of the country, good crop yields are anticipated this season provided good rains continue up to end of February 2017.

## 3. PROSPECTS FOR 2016/2017 RAINFALL SEASON

Updated seasonal rainfall forecast for the period January to March 2017 suggest that the weak La Niña phenomenon which developed over the Eastern Central Equatorial Pacific Ocean is likely to persist up to March 2017. As a result most areas in southern and central Malawi are likely to receive above normal to normal rainfall amounts while normal to below normal seasonal rainfall amounts are expected in northern Malawi.

## 4. OUTLOOK FOR 21 TO 31 JANUARY 2017

Products from models for medium range weather forecast suggest that Congo Air mass is likely to maintain widespread good rainfall amounts over Malawi during the last ten days of January 2017. These rains are likely to support crop growth and development, improve pasture availability for animal production, water resources and soil moisture reserves.

**TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR 11 TO 20 JANUARY 2017**

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	Baka Res. Stn.	7.2	60.6	12	252.9	382.9	66	2	
	Chitipa Met	33.9	65.9	51	309.7	398.2	78	4	
	Karonga Met.	3.9	55.3	7	330.3	331.7	100	3	
	Lupembe Agric	0.0	49.3	0	N/A	275.7	N/A	0	
MZUZU	Bolero Met	82.8	52.0	159	190.3	290.2	66	6	
	Bwengu Agric.	63.3	59.2	107	109.8	332.9	33	6	
	Chikangawa forest	78.7	83.5	94	212.8	452.3	47	5	
	Chelinda ( Nyika)	76.0	79.6	95	176.0	499.0	35	10	
	Chintheche Agric	60.5	83.1	73	580.7	564.1	103	3	
	Ekwendeni Agric.	88.5	53.6	165	169.6	403.7	42	5	
	Euthini Agric.	108.4	52.6	206	401.1	349.2	115	4	
	Mbawa Res. Stn	37.3	59.4	63	216.2	377.6	57	5	
	Mzimba Met	59.2	71.1	83	166.5	407.7	41	9	
	Mzuzu Met.	31.2	69.3	45	187.9	407.1	46	6	
	NkhataBay Met.	26.2	65.6	40	254.1	474.8	54	6	
	Rumpho Boma	100.7	57.9	174	215.7	303.5	71	7	
KASUNGU	Dowa Agric	105.1	82.0	128	466.6	394.0	118	8	
	Kasungu Met	113.7	62.3	183	283.0	344.2	82	9	
	Malomo Agric	142.6	125.7	113	305.5	379.7	80	7	
	Madisi Agric	99.7	81.5	122	346.4	371.8	93	6	
	Mchinji Boma	84.3	79.7	106	573.8	507.5	113	9	
	Mponela Agric	77.2	68.1	113	353.4	350.2	101	7	
SALIMA	Dwangwa Sugar	60.2	81.6	74	311.1	500.5	62	8	
	Lifuwu	163.4	128.0	128	642.0	472.6	136	7	
	Salima Met	148.2	117.2	126	485.2	481.5	101	9	
LILONGWE	Chitedze Met.	116.3	79.5	146	298.4	400.5	75	5	
	Dzonzi Forest	89.2	81.9	109	254.7	471.3	54	8	
	K.I.A Met	77.6	87.2	89	325.9	382.6	85	7	
	Kasiya Agric	100.5	53.9	186	409.8	473.4	87	5	
	Mlangeni Njolomole	206.1	82.4	250	465.2	438.5	106	4	
	Mtakataka Airwing	127.3	59.2	215	469.4	343.6	137	9	
	Nathenje Agric	91.5	57.7	159	443.1	368.9	120	5	
	Ntcheu - Nkhanda	115.3	97.6	118	350.9	503.1	70	9	
	Dedza Met	79.2	87.2	91	322.6	434.1	74	8	
MACHINGA	Chingale Agric	80.3	64.4	125	363.3	427.0	85	7	
	Mpilipili (Makanjila)	174.2	65.9	264	415.1	412.6	101	7	
	Makoka Met	135.3	79.4	170	499.0	458.8	109	10	
	Mangochi Met.	212.8	64.6	329	487.2	275.3	177	6	
	Monkey Bay Met.	137.9	54.0	255	222.7	253.4	88	7	
	Namiasi Agric	139.3	78.3	178	283.4	347.9	81	7	
	Namwera Agric	131.6	86.6	152	448.4	471.8	95	6	
	Ntaja Met.	119.6	75.2	159	474.6	404.6	117	8	
	Phalula Agric	51.6	61.9	83	353.8	407.0	87	7	
	Toleza Farm	95.0	70.8	134	313.5	409.1	77	9	
Zomba RTC	170.5	90.7	188	447.6	559.7	80	10		
BLANTYRE	Bvumbwe Met.	114.9	84.0	137	631.0	500.5	126	9	
	Chichiri Met.	129.4	74.8	173	585.3	741.0	79	9	
	Chileka Airport	95.5	63.9	149	347.3	416.7	83	9	
	Chiradzulu Agric	124.0	60.3	206	547.2	445.8	123	8	
	Chizunga Factory	129.5	70.9	183	551.4	644.7	86	7	
	Lujeri Tea Estate	186.6	127.7	146	1376.5	941.3	146	8	
	Mimosa Met.	109.5	93.8	117	726.9	655.5	111	8	
	Mpemba Agric	95.5	88.8	108	579.4	545.3	106	8	
	Mulanje Boma	147.6	109.7	135	793.3	812.1	98	7	
	Mwanza Boma	200.9	69.9	287	466.8	471.5	99	8	
	Naminjiwa Agric	91.6	84.8	108	486.3	458.1	106	8	
	Neno Agric	214.0	95.7	224	474.0	510.9	93	7	
	Satemwa Tea Est	238.1	61.5	387	712.4	478.9	149	9	
	Thyolo Boma	171.2	56.6	302	752.3	515.1	146	6	
	Chikwawa Boma	106.4	61.2	174	241.0	387.9	62	7	
	SHIRE VALLEY	Nchalo	96.0	58.1	165	428.6	314.0	136	8
		Ngabu Met.	129.3	55.8	232	345.3	368.1	94	8
Nsanje Boma		124.5	97.8	127	491.5	528.7	93	7	

**TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 11 TO 20 JANUARY 2017**

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 <sup>-2</sup> p/day
<b>KARONGA ADD</b>										
Chitipa	27.1	17.4	28.8	16.0	4.7	83	0.5	3.8	3.1	4.9
Karonga	30.6	22.3	32.7	21.5	4.7	72	5.1	6.2	5.0	7.9
<b>MZUZU ADD</b>										
Bolero	28.7	19.3	30.4	17.9	1.4	75	4.1	5.3	4.2	7.2
Mzimba	27.0	17.6	29.8	16.9	2.5	78	3.5	4.9	3.9	6.9
Mzuzu	25.8	17.6	29.1	16.6	3.6	78	3.3	4.8	3.8	6.7
Nkhata Bay	29.8	21.5	32.5	21.0	1.8	82	3.5	5.2	4.1	6.8
<b>KASUNGU ADD</b>										
Kasungu	26.7	18.8	29.5	17.7	5.0	77	2.7	4.8	3.9	6.3
<b>LILONGWE ADD</b>										
Chitedze	26.1	19.0	28.2	17.7	1.8	81	2.6	4.6	3.6	6.3
Dedza	23.4	16.5	25.3	15.3	9.4	82	2.3	4.5	3.6	6.1
KIA	25.4	18.4	27.1	17.2	4.7	78	2.9	4.8	3.8	6.5
<b>SALIMA ADD</b>										
Nkhotakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Salima	28.5	21.9	30.5	20.6	6.1	83	3.5	3.6	2.8	6.9
<b>MACHINGA ADD</b>										
Makoka	25.7	19.1	27.2	18.0	3.6	87	1.8	4.2	3.3	5.8
Mangochi	32.0	22.2	32.0	20.5	1.1	80	3.5	5.4	4.3	6.9
Monkey Bay	28.7	22.8	31.3	20.6	6.8	80	3.4	5.4	4.4	6.8
Ntaja	27.7	20.7	29.3	19.6	4.7	83	2.4	4.7	3.8	6.2
<b>BLANTYRE ADD</b>										
Bvumbwe	25.2	17.0	26.6	15.6	4.7	84	2.7	4.5	3.6	6.4
Chichiri	26.5	18.9	29.4	17.5	2.2	82	0.3	3.7	3.0	4.8
Chileka	27.7	20.3	29.7	18.5	9.0	78	2.9	5.2	4.2	6.5
Mimosa	29.5	16.6	31.0	20.0	3.2	72	0.3	4.1	3.4	4.8
<b>SHIRE VALLEY ADD</b>										
Ngabu	32.8	24.1	34.9	22.5	2.5	78	3.9	5.8	4.7	7.2

**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