



Government of Malawi
Ministry of Environment, Tourism and Wildlife

Malawi 10-day Weather and Agrometeorological Bulletin

"In support of National Early Warning Systems and Food Security"



Be wise be weather-wise

Department of Climate Change and Meteorological Services

Period: 21 – 30 April 2020

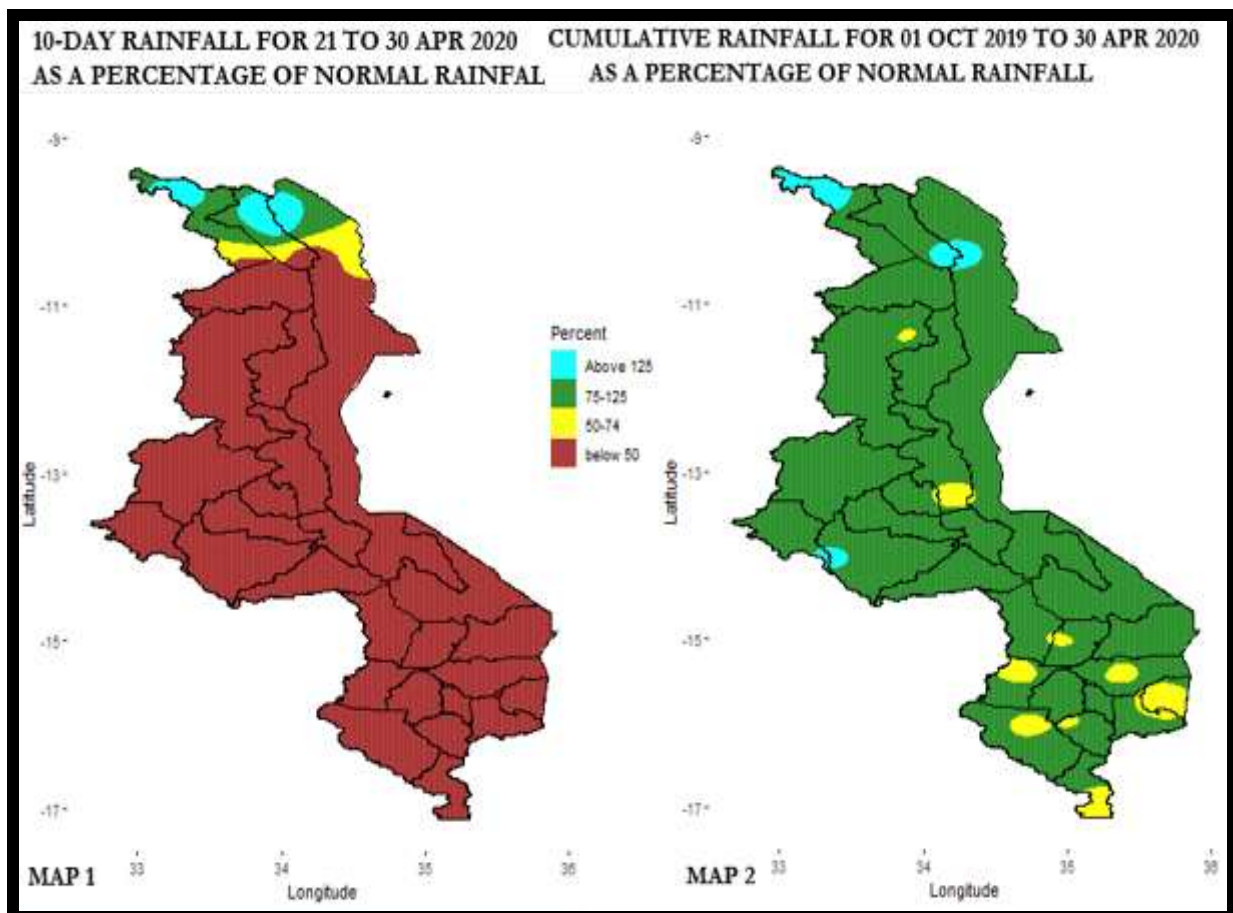
Season: 2019/2020

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HIGHLIGHTS

- Dry conditions prevailed over most areas during the period under review...
- Generally normal to above normal seasonal rainfall amounts recorded over Malawi...
- Normal cumulative rainfall amounts expected over winter season...



1.0 WEATHER SUMMARY

During the period 21 to 30 April 2020, as the 2019/2020 rainfall season monitoring came to an end, relatively dry easterly airmass was dominant over most areas of Malawi as the northernmost areas of the country remained in the vicinity of the Inter-Tropical Convergence Zone (ITCZ). Hence dry conditions were experienced over most areas of the country with light to moderate rainfall amounts recorded over northernmost districts of Karonga and Chitipa.

1.1 RAINFALL SITUATION

Generally dry conditions were experienced over most areas of Malawi during the period 21 to 30 April 2020. Cumulative ten-day rainfall amounts were lower than the long-term average rainfall amounts for this period over most areas of Malawi, represented by brown and yellow colours in Map1. However, some areas over northernmost districts of the country had higher than long-term average rainfall amounts. These are represented by light blue and green colours in Map 1.

Areas that had reported at least a rainy day of 0.3mm included Nchalo in Chikwawa which recorded 0.6mm, Dwangwa in Nkhota kota recorded 1.0mm, Chileka in Lilongwe recorded 2.0mm, Mzuzu Meteorological station recorded 2.3mm, Thuchila Agriculture in Mulanje recorded 3.5mm, Chikangawa Forest in Mzimba recorded 5.5mm, Masambanjati Agriculture in Thyolo recorded 6.5mm, Vinthukutu Agriculture Karonga recorded 7.3mm, Chitipa Aerodrome Meteorological station recorded 16.2mm, Chintcheche Agriculture in Nkhata Bay recorded 29.4mm, Lupembe Agriculture in Karonga recorded 58.5mm, Karonga Meteorological station 115.8mm with Baka Research station in Karonga recorded 148.1mm as the highest amount recorded during the dekad. More details on the cumulative rainfall amounts in Table 1.

Map 2 indicates the cumulative spatial rainfall distribution over Malawi for the 2019/20 rainfall season. The map indicates that Malawi has generally received normal to above normal rainfall amounts (depicted by green and light blue colours) with isolated cases of normal to below normal rainfall in some parts of the three regions of the country (as shown by the yellow dots).

1.3 AIR TEMPERATURE

Warm to hot temperatures were experienced over Malawi during the period 21 to 30 April 2020 with reportedly cool to cold conditions during nights and early morning hours in some places. Mean daily maximum temperatures had ranged from 24.5°C at Mzuzu Meteorological station to 34.0°C at Ngabu Meteorological station in Chikwawa. On the other hand, mean daily minimum temperatures had ranged from 13.0°C at Dedza Meteorological station to 22.1°C at Ngabu Meteorological station. Details in Table 2.

1.4 WIND SPEED

Light to moderate wind speeds were experienced in most parts of the country during the period under review. Daily average wind speed measured at a height of two metres above the ground level across the country had ranged from 1.4 km

per hour at Chitedze Meteorological station in Lilongwe to 12.2 km per hour at Chitipa Meteorological station. More details in Table 2.

1.5 RELATIVE HUMIDITY

During the last ten days of April 2020, air over Malawi was relatively humid. Daily average relative humidity values recorded from various weather stations in Malawi had ranged from 51% at Ngabu Meteorological station to 83% at Mzuzu Meteorological station. Details as shown in Table 2.

1.6 SUNSHINE HOURS

Generally medium to long hours of bright sunshine were observed over Malawi during the period 21 – 30 April, 2020. Mean daily values had ranged from 6.8 hours per day at Mimosa Meteorological station in Mulanje to 8.9 hours per day at Salima Meteorological station. As a result, calculated amount of Solar Radiation had ranged from 8.0 to 9.5 cal/cm²/day. For details refer to Table 2.

2.0 AGROMETEOROLOGICAL ASSESSMENT

During the period under review, mostly dry conditions were experienced over Malawi. These dry conditions facilitated the drying of matured crops in the northern parts of Malawi, as well as harvesting of maize crop.

Farmers have already harvested over southern and central areas with majority of farmers harvesting over northern Malawi.

Good crop yields and production are anticipated this Agricultural season. The anticipated good agricultural production has the potential to boost food security situation at both household and national levels.

3. PROSPECTS FOR 2020 WINTER SEASON

Malawi is likely to experience normal winter conditions. Normal winter rainfall amounts are anticipated with episodes of cold to locally very cold and chilly conditions, locally known as Chiperoni, throughout the Malawian winter months.

NB: THIS IS THE LAST BULLETIN OF THE 2019/2020 RAINFALL SEASON.

TABLE 1: 10-DAY RAINFALL TOTALS AT SELECTED STATIONS FOR 21 TO 30 APRIL 2020

ADD	STATION NAME	ACTUAL DEKADAL TOTAL RAINFALL (mm)	DEKADAL NORMAL EXPECTED RAINFALL (mm)	ACTUAL DEKADAL TOTAL AS PERCENTAGE OF NORMAL (EXPECTED RAINFALL)	DEKADAL RAINY DAYS ≥ 3 mm	ACTUAL TOTAL RAINFALL TO DATE (mm)	NORMAL (EXPECTED) RAINFALL TO DATE (mm)	ACTUAL TO DATE AS PERCENTAGE OF NORMAL (EXPECTED RAINFALL)
KARONGA	Baka Res. Stn.	148.1	41.0	361	5	1621.0	1317.8	123
	Chitipa Met	16.2	4.2	386	1	1208.6	940.0	129
	Karonga Met.	115.8	25.9	447	6	1104.3	980.8	113
	Lupembe	58.5	12.7	461	2	1005.7	822.6	122
	Vinthukutu Agric	7.3	53.3	14	1	1987.1	1120.5	177
MZUZU	Bwengu Agric.	0.0	7.4	0	0	812.4	758.8	107
	Chikangawa forest	5.5	22.0	25	2	1330.4	1090.5	122
	Chelinda (Nyika)	0.0	28.7	0	0	1404.9	1194.3	118
	Chintheche Agric	29.4	82.6	36	1	1294.5	1683.4	77
	Emfeni Agric	0.0	4.4	0	0	640.1	806.0	79
	Ekwendeni Agric.	0.0	9.4	0	0	537.9	807.2	67
	Euthini Agric.	0.0	14.0	0	0	897.4	775.4	116
	Mbawa Res. Stn	0.0	7.3	0	0	747.9	801.2	93
	Mzuzu Met.	2.3	43.6	5	1	983.5	1074.6	92
	Rumphi Boma	0.0	8.3	0	0	822.3	728.3	113
	Zombwe Agric	0.0	8.5	0	0	732.6	744.4	98
KASUNGU	Dowa Agric	0.0	2.8	0	0	900.2	872.3	103
	Lisasadzi	0.0	6.4	0	0	677.5	811.9	83
	Malomo Agric	0.0	14.9	0	0	689.3	825.8	83
	Madisi Agric	0.0	3.6	0	0	671.2	827.9	81
	Mchinji Boma	0.0	10.2	0	0	900.8	1003.4	90
	Mkanda Met	0.0	7.1	0	0	866.6	863.8	100
	Mponela Agric	0.0	2.6	0	0	636.5	786.9	81
	Mwimba Research	0.0	2.2	0	0	668.8	865.2	77
LILONGWE	Ntchisi Boma	0.0	12.1	0	0	739.1	1225.9	60
	Chileka Namitete	2.0	13.9	14	1	1180.9	921.2	128
	Chitedze Met.	0.0	6.5	0	0	804.9	874.5	92
	K.I.A Met	0.0	6.1	0	0	898.3	838.1	107
	Kasiya Agric	0.0	12.6	0	0	1112.8	948.1	117
	Mlangeni Njolomole	0.0	4.7	0	0	738.8	958.2	77
	Nathenje Agric	0.0	13.2	0	0	891.5	865.0	103
	Ntcheu - Nkhanda	0.0	7.2	0	0	1105.2	1035.0	107
SALIMA	Dedza RTC	0.0	5.1	0	0	806.4	979.0	82
	Dwangwa Sugar Corp.	1.0	33.3	3	1	1585.1	1320.4	120
MACHINGA	Lifuwu	0.0	11.7	0	0	1283.9	1228.3	105
	Balaka Township	0.0	6.8	0	0	594.7	849.5	70
	Chingale Agric	0.0	5.7	0	0	909.1	910.3	100
	Mpilipili (Makanjila)	0.0	4.8	0	0	793.1	877.1	90
	Namwera Agric	0.0	8.4	0	0	1003.1	1035.5	97
	Phalula Agric	0.0	3.5	0	0	823.5	815.3	101
	Toleza Farm	0.0	9.8	0	0	949.9	860.2	110
BLANTYRE	Zomba RTC	0.0	13.6	0	0	810.4	1187.1	68
	Chiradzulu Agric	0.0	11.8	0	0	912.2	965.6	94
	Chizunga Factory	0.0	18.2	0	0	839.3	1308.9	64
	Masambanjati Agric	6.5	28.4	23	2	1132.9	1305.1	87
	Mpemba Vet	0.0	11.3	0	0	1263.3	1102.4	115
	Mwanza Boma	0.0	10.6	0	0	970.4	999.1	97
	Naminjiwa Agric	0.0	5.4	0	0	656.6	943.7	70
	Neno Agric	0.0	14.5	0	0	625.7	1083.1	58
SHIRE VALLEY	Satemwa Tea Est. No.1	0.0	17.9	0	0	1216.2	1067.2	114
	Thuchila Agric	3.5	7.7	45	1	969.4	863.9	112
	Chikwawa Boma	0.0	6.9	0	0	498.6	750.2	66
	Kasinthula Res. Stn.	0.0	10.7	0	0	622.5	708.4	88
	Makhanga Met	0.0	5.9	0	0	682.7	708.8	96
SHIRE VALLEY	Nchalo Sucoma	0.6	8.6	7	1	584.5	643.1	91
	Nsanje Boma	0.0	18.3	0	0	591.4	1066.7	55

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 21 TO 30 APRIL 2020

ADD/STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED (Km/Hr)	RH (%)	SUN SHINE HOURS	Eo mm per day	Et mm per day	RADIATION cal cm ⁻² p/day
KARONGA ADD										
CHITIPA	26.3	17.8	27.1	16.5	12.2	71	7.9	9.2	11.7	9.0
KARONGA	29.6	19.9	31.0	19.0	4.7	77	7.6	7.5	6.0	9.4
MZUZU ADD										
BOLERO	28.0	17.3	32.1	14.4	5.0	76	7.6	6.3	5.1	8.5
MZIMBA	26.0	14.3	27.0	13.4	3.2	77	7.3	5.4	4.2	8.4
MZUZU	24.5	15.3	27.1	13.7	4.0	83	6.8	5.3	4.1	8.0
NKHATA BAY	30.1	18.7	33.7	16.9	5.8	80	8.3	6.9	5.5	9.0
KASUNGU ADD										
KASUNGU	28.5	15.4	31.0	12.7	5.0	68	8	6.8	5.4	8.9
LILONGWE ADD										
CHITEDZE	28.5	15.0	29.8	14.1	1.4	71	8.4	6.1	4.7	9.2
DEDZA	25.0	13.0	26.9	11.6	5.0	73	7.5	6.0	4.7	8.7
K I A	27.6	14.1	28.6	12.6	5.8	75	7.9	6.4	5.1	8.9
SALIMA ADD										
NKHOTAKOTA	32.1	19.7	34.0	18.2	3.6	72	8.6	7.1	5.7	9.3
SALIMA	30.0	21.5	32.0	19.3	4.0	68	8.9	7.8	6.3	9.5
MACHINGA ADD										
NTAJA	31.1	18.5	17.0	16.1	5.8	66	7.7	8.7	7.4	9.2
MAKOKA	27.8	16.8	31.0	15.3	5.0	76	7.2	6.4	5.1	8.6
MANGOCHI	32.0	21.7	35.2	18.3	6.1	68	8.1	8.1	6.7	9.1
MONKEY BAY	31.3	21.0	34.0	18.5	6.1	61	7.9	8.2	6.9	8.9
BLANTYRE ADD										
BVUMBWE	27.2	17.1	31.1	15.1	4.3	66	8.3	7.0	5.6	9.4
CHICHIRI	25.3	16.3	28.1	14.7	2.9	71	8	7.3	5.9	9.2
CHILEKA	29.3	17.0	31.2	16.1	8.3	60	8.5	10.2	8.7	9.3
MIMOSA	28.3	16.5	33.0	14.9	4.7	60	6.8	6.9	5.7	8.4
SHIRE VALLEY ADD										
NGABU	34.0	22.1	36.0	19.1	2.9	51	8.8	8.3	6.8	9.3

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 Kilometres per hour (Km/hr) to Meters Per Second (mps) = Km/hr ÷3.6