



Malawi 10-Day Rainfall & Agromet Bulletin



Department of Meteorological Services

Period: 11 – 20 December 2008

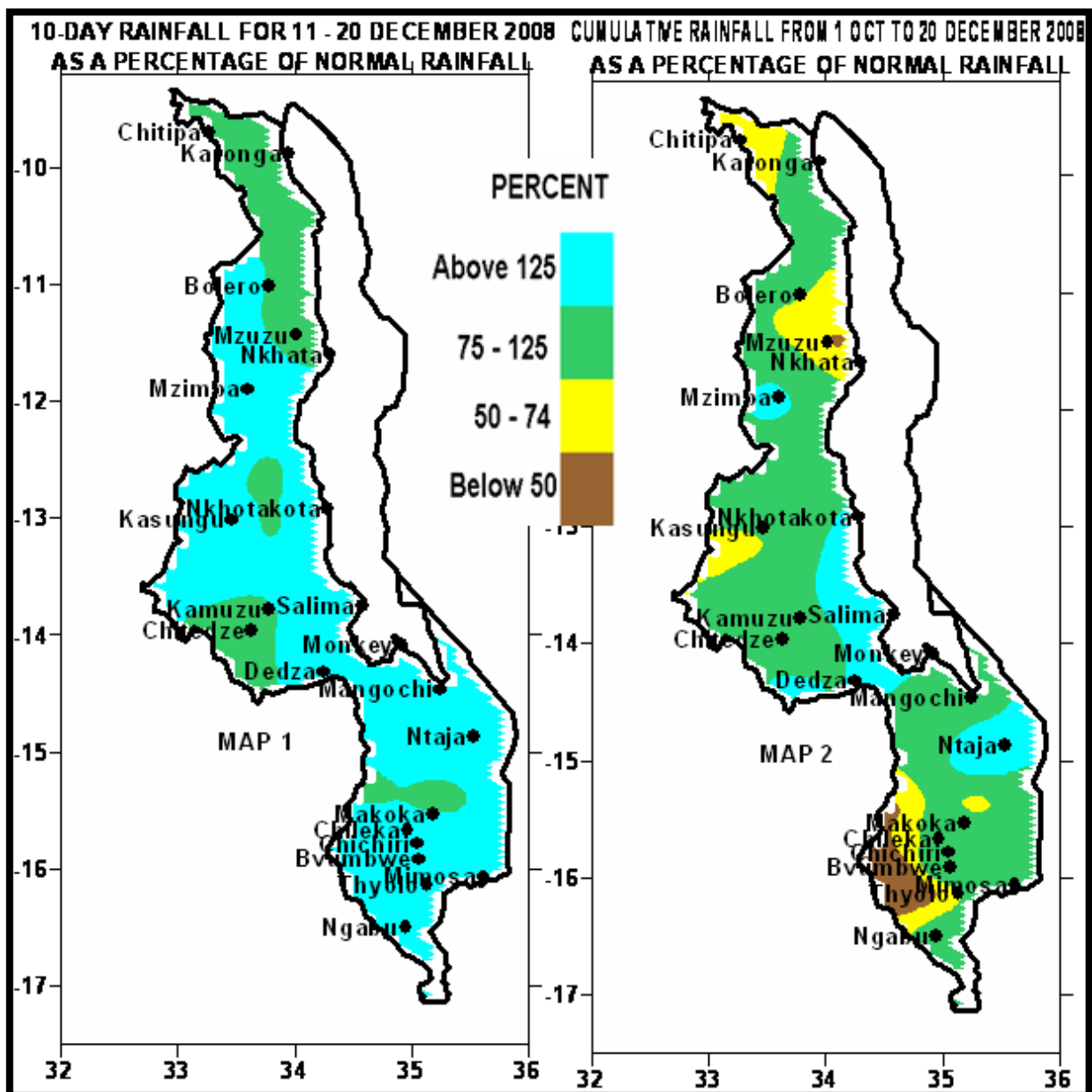
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HIGHLIGHTS

- Above average rainfall performance experienced ...
- Major agricultural activities ranged fro, planting to fertilizer application ...
- Wet weather to persist over Malawi during 21 to 31 December 2008...



1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the second 10-days of December 2008 the Inter Tropical Convergence Zone and Congo Air were active over Malawi. As a result most areas experienced above average rainfall performance (**light blue colour on Map 1**) for the period. Moderate to heavy rainfall amounts with very good spatial and temporal distribution were experienced over most parts of the country. Several areas registered total rainfall amounts in excess of 100mm, Areas that reported total rainfall amounts of more than 150mm in the south included Mimosa in Mulanje 262mm, Mpilipili in Mangochi 242mm, Nsanje Boma and Lujeri Tea Estate 187mm and Chichiri in Blantyre 155mm, in the centre Salima Met had 333mm, while Nkhotakota Met reported 175mm in the north Mzimba registered 169mm. Most areas experienced between 8 and 10 rainy days. See **Table 1**.

Cumulative rainfall performance improved over the country including those areas which have been experiencing rainfall deficits since the start of the season particularly in the south. Very few areas registered rainfall deficits (**yellow and brown colours on Map 2**)

1.2 MEAN AIR TEMPERATURE

Due to increased cloudiness and rainfall Malawi experienced a drop in daily maximum temperatures. Warm to hot temperatures were experienced over the country. Mean daily maximum air temperatures ranged from 22°C at Dedza in the centre to 33°C at Ngabu in Chikwawa in the south while average daily minimum temperatures ranged from 16°C to 24°C. See more details in Table 2.

1.4 MEAN WIND SPEEDS

Mean wind speeds at a height of two metres above ground level remained generally light. The average wind speeds ranged from 0.7 m/s (2.5 Km/h) at Nkhata Bay to 2.6 m/s (7.2 Km/h) at Chileka (see Table 2).

1.5 MEAN RELATIVE HUMIDITY

The atmosphere was fairly moist during the period under review. Daily average relative humidity values ranged from 58% at Mimosa to 90% at Makoka. More details are in Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

In the second 10-days of December 2008, there was a great improvement in rainfall performance over Malawi. Good rains for agricultural production were experienced. These rains satisfied crop water requirements, supported crop establishment, growth and development, planting and germination of various crops and fertilizer application. The Maize crop was reported doing well. The crop generally ranged from plating to vegetative stage.

The major agricultural activities for farmers in Malawi included land preparation and planting particularly in the north and weeding, and fertilizer application in the centre and the south.

Cumulative rainfall performance indicated that the rainfall season is getting normalised particularly over the south and along lakeshore where generally wet season started generally late by over a month in some cases. Generally in Malawi planting rains start in November in the south and in December in the northern half.

3. PROSPECTS OF 2008/09 RAINFALL SEASON

Climate prediction models suggest that by end of April 2009 the greater part of Malawi should expect normal rainfall amounts. However the distribution of rains in both space and time is not expected to be uniform. Already there has been a delay in the onset of the wet season in some parts of the country. Externally, the influence of climate change cannot be ignored and one of the indicators is occurrence of extreme climatic events such as floods and drought. Low lying areas such as the Shire valley and lakeshore areas are more vulnerable to floods and droughts.

4. OUTLOOK FOR 21 – 31 DECEMBER 2008

During the last 10-days of December 2008 models for short and medium term weather forecasts suggest that Congo Air is likely to remain active over Malawi. Therefore, widespread rains and occasional thunderstorms which will be locally heavy are expected to persist over Malawi during the period 21 to 31 December 2008..

TABLE 1: DEKADAL RAINFALL SUMMARY FOR 11 – 20 DECEMBER 2008 AT SELECTED STATIONS

STATION NAME	DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL mm	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE mm	NORMAL TO DATE mm	TOTAL TODATE AS % NORMAL	RAINY DAYS
SOUTH							
Bvumbwe Met.	150.1	59.5	252	343.1	274.1	125	9
Chancellor College	110.5	90.0	123	255.5	335.4	76	8
Chichiri Met.	154.8	57.2	271	247.8	279.4	89	10
Chileka Airport	97.7	57.3	171	246.3	237.1	104	9
Chingale Agric	42.3	60.7	70	106.4	210.6	51	7
Chiradzulu Agric	129.5	77.0	168	244.0	251.2	97	7
Liwonde Township	114.7	57.6	199	279.8	181.6	154	6
Lujeri Tea Estate	186.9	126.8	147	330.7	552.9	60	10
Mpilipili (Makanjila)	241.8	N/A	N/A	345.3	N/A	N/A	4
Makoka Met	78.7	57.1	138	294.0	247.1	119	9
Mangochi Met.	94.6	52.3	181	187.1	183.9	102	9
Mimosa Met.	262.1	78.4	334	397.6	378.7	105	10
Monkey Bay Met.	138.1	83.7	165	240.3	197.7	122	8
Mpemba Vet	148.6	67.6	220	356.8	293.0	122	9
Nchalo Sucoma	79.2	45.3	175	99.1	180.2	55	5
Neno Agric	73.2	61.8	118	116.6	254.8	46	6
Ngabu Met.	127.3	48.0	265	212.9	200.6	106	7
Nsanje Boma	187.2	51.9	361	228.7	223.6	102	6
Ntaja Met.	129.6	62.8	206	306.4	212.2	144	9
Satemwa Tea Estate	136.5	87.8	155	194.6	354.8	55	8
Thyolo Met	102.3	78.7	130	223.2	302.3	74	10
CENTRAL REGION							
Chitedze Met.	62.2	66.9	93	219.4	220.7	99	7
Dedza Met	120.9	71.4	169	278.6	204.5	136	9
Dwangwa Sugar	123.9	70.2	176	191.0	251.7	76	7
Kaluluma DTC	115.6	67.1	172	152.4	175.7	87	5
K.I.A Met	65.5	58.0	113	191.2	175.4	109	7
Kasungu Met	143.2	84.7	169	205.8	215.5	95	9
Malomo Agric	76.2	68.2	112	142.3	134.8	106	4
Madisi Agric	113.3	69.4	163	181.9	173.4	105	7
Mwimba Research	116.5	69.9	167	116.5	194.8	60	6
Nkhotakota Met	175.2	84.7	207	334.7	223.9	149	6
Ntcheu - Nkhanda	99.7	74.7	133	200.2	237.5	84	8
Salima Met	332.9	84.5	394	427.1	208.8	205	8
Dedza RTC	113.0	66.5	170	295.4	199.0	148	8
NORTHERN REGION							
Bolero Met	61.9	49.6	125	139.8	178.3	78	6
Chitipa Met	55.0	67.7	81	102.3	200.8	51	7
Emfeni Agric	34.2	55.0	62	120.5	170.0	71	4
Karonga Met.	109.5	85.8	128	164.7	171.7	96	7
Mzimba Met	168.7	68.5	246	277.3	187.9	148	9
Mzuzu Met.	56.2	82.6	68	120.3	279.7	43	8
NkhataBay Met.	108.5	98.8	110	299.6	457.5	65	9

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR 11 – 20 DECEMBER 2008

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BOLERO	28.8	18.1	32.0	16.9	1.0	74
BVUMBWE	25.0	18.0	26.0	17.6	1.5	85
CHICHIRI	25.1	18.9	27.6	18.0	1.2	73
CHILEKA	27.2	21.0	30.4	22.0	2.6	87
CHITEDZE	26.2	18.7	27.1	17.8	0.8	82
CHITIPA	26.7	17.8	30.1	12.1	1.0	77
DEDZA	21.6	16.0	23.6	15.8	1.1	88
K I A	25.3	17.6	26.8	16.5	1.3	79
KARONGA	29.8	22.6	31.3	20.0	0.9	78
KASUNGU	25.5	18.7	29.2	17.6	1.8	82
MAKOKA	25.4	18.3	27.9	18.5	1.3	90
MANGOCHI	28.7	19.7	31.9	18.0	0.9	82
MIMOSA	28.2	20.0	30.3	19.1	1.0	58
MONKEY BAY	28.3	22.7	31.0	22.2	1.7	82
MZIMBA	26.5	17.3	28.5	16.6	0.9	77
MZUZU	26.7	17.4	28.0	15.6	1.5	80
NGABU	33.0	24.3	35.8	23.2	2.0	82
NKHATA BAY	29.7	21.2	32.1	20.1	.0.7	82
NKHOTAKOTA	27.6	21.2	29.3	20.1	1.5	83
NTAJA	27.1	21.5	28.9	20.9	1.7	86
SALIMA	28.0	21.0	31.0	20.1	1.7	84

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

