



10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services



Period: 21 – 31 January 2007

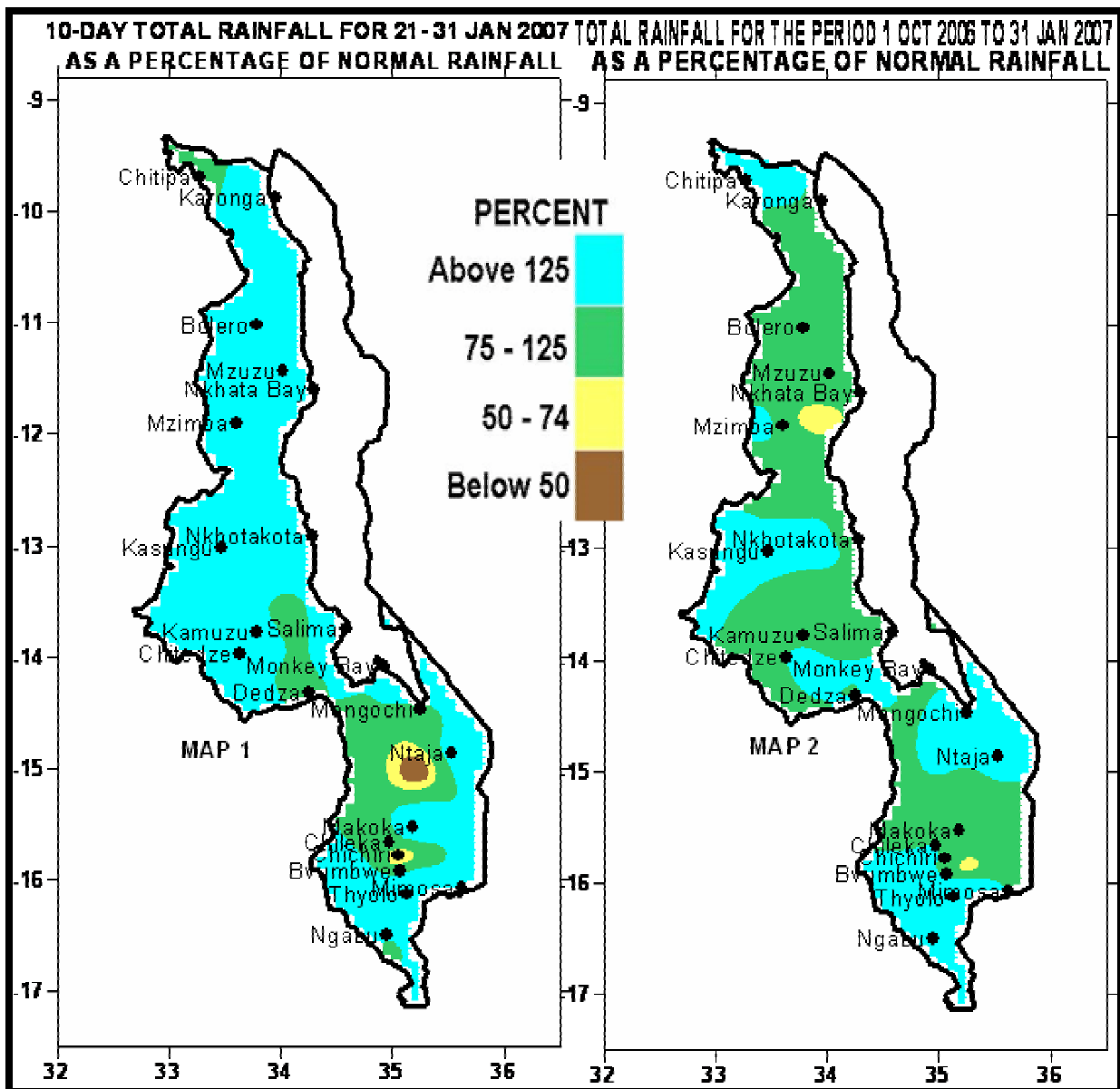
Season: 2006/2007

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HIGHLIGHTS

- Mainly above average rains result in floods in some parts of Malawi...
- Maize crop in good condition mostly at vegetative to flowering stages ...
- Widespread locally heavy rains expected during 1 – 10 February, 2007...
- Models indicate El Nino conditions weakening by March - May 2007...



1. WEATHER SUMMARY

1.1 RAINFALL SITUATION

During the third dekad of January 2007, both main rain bearing systems, namely moist Congo Air and Inter Tropical Convergence Zone, were very active over Malawi. Hence widespread rains with locally heavy downpours were experienced over most parts of the country. Most areas particularly over the centre and north experienced above normal dekad rainfall amounts (light blue colours on Map 1) with good spatial and temporal distribution. The south had received mostly normal to above normal rainfall amounts except for Liwonde Township (14%) which received far below average rainfall. Overall, most areas in Malawi reported over seven rainy days. Areas that had accumulated more than 200mm during the period were confined to central and southern Malawi. These areas included Lujeri Tea Estate (226) and Zomba RTC in the south, Chitedze (252), Kamuzu International Airport (238), Mchinji Boma (229), Mkanda (212) and Salima in the centre. See Table 1.

Cumulative rainfall performance from October 2006 through 31 January 2007 indicates that generally normal to above-normal rainfall (green to light blue colours on Map 2) has been received throughout Malawi.

1.2 MEAN AIR TEMPERATURE

During the last dekad of January 2007 mean daily maximum temperatures over most areas in Malawi were still in the warm to hot category. Higher mean daily maximum temperatures were confined to Lakeshore areas. The lowest maximum was reported at Dedza (22.9°C) while the highest was reported at Karonga. At the same time, mean daily minimum temperatures ranged from 16.3°C at Bvumbwe to 22.6°C at Monkey Bay and Karonga (Table 2).

1.3 MEAN DAILY WIND SPEEDS

Mean daily wind speeds measured at a height of two meters above the ground were light. The highest wind speed was reported at Ntaja (2.0 m/s or 7.2 Km/hr) while the lowest wind speed was recorded at Bolero (0.4m/s or 1.4 Km/hr). See Table 2.

1.4 MEAN RELATIVE HUMIDITY

High mean daily relative humidity values were reported over most parts of Malawi. The highest was

registered at Kamuzu International Airport in Lilongwe (88%) while the lowest was registered at Chichiri in Blantyre (76%). See Table 2.

2. AGROMETEOROLOGICAL ASSESSMENT

The country mostly experienced above average rains during the last dekad of January 2007. These rains supported crop growth and development in most parts of the country. However, in some areas incessant heavy rains caused soil water-logging conditions and some floods were reported in Nsanje and Chikwawa in the south, Salima and Nkhotakota in the centre as well as Nkhata Bay and Karonga in the north. The general crop stand in the fields was reported in good condition with Maize crop ranging from vegetative to flowering and cobbing stages. No major incidences of pests and diseases have been reported.

The planting rains began earlier than normal this season, implying that crops will mature early, and if the good rains continue to February, many farmers face prospects of a good harvest.

The good rains received so far this season have supported both crop production and development of pastures.

3. PROSPECTS OF 2006/07 SEASON

EL NIÑO WATCH: Currently most statistical and coupled model forecasts indicate that El Niño conditions are weakening and ENSO-neutral conditions are expected to return during March-May 2007. Over Malawi, El Niño conditions have **sometimes** caused an extended dry spell in the January to March following good rainfall early in the season, even though specific impacts vary from year to year and area to area. Although the updated forecast still indicates likelihood of normal rains over Malawi during the remainder of the season, there is need to closely monitor rainfall performance particularly over southern Malawi since any prolonged dryness can have adverse effects on crop production.

4. OUTLOOK FOR 1 – 10 February 2007

Meanwhile, models for medium range forecasts indicate that both the Inter Tropical Convergence Zone and moist Congo Air are likely to remain active over Malawi. Therefore widespread locally heavy rains are expected to maintain wet conditions over Malawi during the period 1 – 10 February 2007.

**TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR
DEKAD 3 OF JANUARY 2007: PERIOD 21 - 31**

STATION NAME	DEKADAL TOTAL	DEKADAL NORMAL	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE	NORMAL TO DATE	TOTAL TODATE AS % NORMAL	RAINY DAYS
	mm	mm		mm	mm		* 0.3 mm
SOUTHERN REGION							
Balaka Township	69.8	97.2	72	659.8	499.0	132	4
Bvumbwe Met.	57.8	90.5	64	632.2	589.8	107	5
Chancellor College	141.8	100.8	141	805.0	742.0	108	9
Chichiri Met.	64.8	93.0	70	743.8	597.2	125	7
Chileka Airport	66.7	79.3	84	625.7	499.7	125	6
Chingale Agric	141.0	94.8	149	528.1	535.8	99	7
Chiradzulu Agric	59.6	94.1	63	547.2	598.9	91	3
Kasinthula Res. Stn.	141.8	62.5	227	891.4	387.3	230	5
Liwonde Township	11.5	80.5	14	517.2	458.4	113	2
Lujeri Tea Estate	226.0	134.8	168	1197.5	1076.1	111	7
Makoka Met	170.1	79.0	215	592.6	548.1	108	9
Mangochi Met.	74.5	74.0	101	767.4	445.1	172	7
Mimosa Met.	121.8	100.0	122	827.6	736.5	112	6
Monkey Bay Met.	161.1	114.2	141	585.9	545.4	107	7
Mulanje Boma	132.2	115.0	115	1115.8	828.6	135	3
Namiasi Agric	157.7	89.3	177	618.7	436.1	142	6
Naminjiwa Agric	100.1	83.0	121	478.6	557.4	86	7
Nchalo Illovo	165.2	54.2	305	799.2	366.2	218	5
Ngabu Met.	59.1	52.2	113	723.1	420.2	172	6
Nsanje Boma	101.5	75.1	135	686.7	486.4	141	5
Ntaja Met.	127.9	84.5	151	747.7	501.2	149	7
Satemwa Tea Est. No.1	203.4	95.0	214	1008.0	672.4	150	7
Zomba RTC	236.8	107.3	221	999.2	679.3	147	11
CENTRAL REGION							
Bunda College	115.0	71.6	161	636.0	500.0	127	9
Chitedze Met.	251.7	81.9	307	723.4	514.5	141	8
Dedza Met	108.9	95.6	114	650.5	526.1	124	10
K.I.A Met	238.4	90.9	262	506.7	478.8	106	10
Kasungu Met	193.6	67.0	289	878.9	473.9	185	9
Lisasadzi	182.5	80.9	226	653.9	469.7	139	9
Mchinji Boma	229.0	88.4	259	800.1	575.4	139	9
Mkanda Met	212.1	69.7	304	743.1	541.6	137	9
Mlangeni Njolomole	78.7	85.2	92	469.0	534.9	88	6
Mwimba Research	185.8	76.1	244	761.8	492.6	155	9
Nathenje Agric	109.7	85.1	129	636.5	473.6	134	9
Ntcheu - Nkhande	102.7	84.0	122	699.0	605.8	115	9
Ntchisi Boma	150.0	74.6	201	648.0	472.8	137	8
Salima Met	209.3	114.4	183	803.6	636.2	126	10
Dedza RTC	160.5	116.3	138	817.4	550.4	149	9
NORTHERN REGION							
Bolero Met	137.2	47.3	290	485.1	410.6	118	9
Chitipa Met	61.9	72.6	85	678.7	515.3	132	7
Karonga Met.	110.0	54.1	203	519.7	422.8	123	5
Mzimba Met	106.6	63.3	168	632.0	485.1	130	8
Mzuzu Met.	108.9	69.9	156	602.6	567.5	106	10

**TABLE 2: AGROMETEOROLOGICAL PARAMETERS
FOR DEKAD 2 OF JANUARY 2007**

STATION	MAX TEMP	MIN TEMP	ABS MAX	ABS MIN	WIND SPEED	RH
	(°C)	(°C)	(°C)	(°C)	m/s	%
BOLERO	28.0	18.1	30.3	16.7	0.4	83
BVUMBWE	25.1	16.3	27.2	15.6	1.0	83
CHICHIRI	27.8	19.4	28.9	18.2	0.5	76
CHILEKA	27.6	20.8	29.5	19.9	1.8	86
NTAJA	27.9	21.3	29.9	20.4	2.0	84
CHITEDZE	26.6	18.4	28.8	17.2	0.5	86
CHITIPA	27.2	18.0	30.1	16.8	0.5	79
DEDZA	22.9	16.4	24.5	15.1	0.9	80
KASUNGU	27.5	19.0	29.6	18.1	0.5	83
KARONGA	30.5	22.6	31.5	21.5	0.9	79
K I A	25.2	17.8	26.5	16.9	1.2	88
MAKOKA	25.8	18.9	27.5	18.0	0.7	78
MANGOCHI	29.8	22.2	31.8	21.4	0.9	80
MONKEY BAY	28.7	22.6	30.0	21.3	1.3	83
MZIMBA	26.3	17.1	27.6	16.0	0.7	86
MZUZU	26.5	17.9	27.4	16.1	1.3	83
SALIMA	27.3	21.9	29.8	20.9	1.5	89

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