10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services

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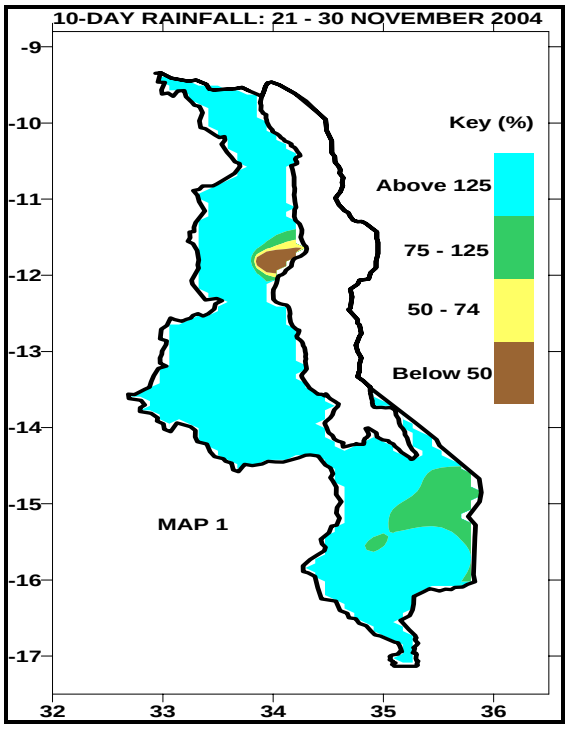
HIGHLIGHTS

- **Good rains cover the whole country…**
- **Planting continues in most parts of the country…**
- **Conditions favourable for more rains in the next ten days…**

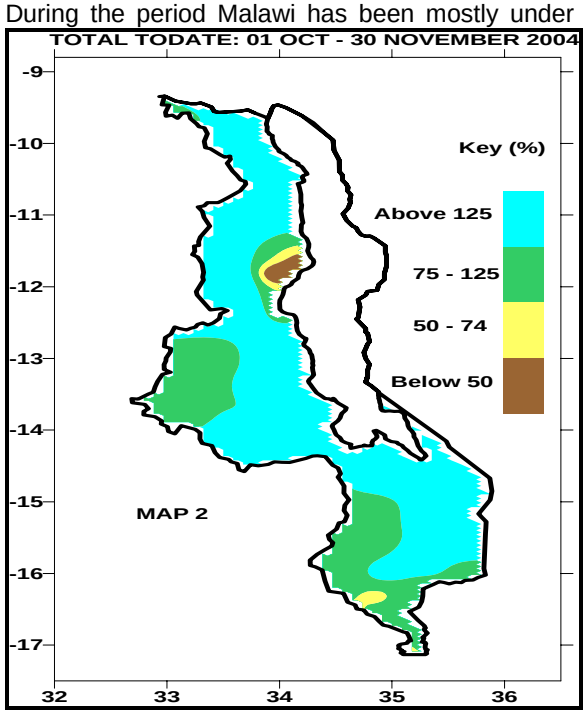
1. WEATHER SUMMARY

1.1 RAINFALL



There has been an increase in rainfall during the last 10-days of November compared to the 2nd 10-days. On average the country experienced 7 days of rainfall. Almost all areas received above normal rainfall except at Chikangawa (32%) anad Nkhata Bay (45%). Generally the rainfall received ranged from 83% at Liwonde to 666% at Karonga. Apart from Karonga exceptional heavy rains were also received at Mzimba (621%), NRC (591%), Nkhotakota (488%), Monkey Bay (366%), Satemwa Tea Eatate (337%), Salima (333%), KIA Met (315%),Thyolo (311%) and Chitedze (306%). Notable rainfall amounts received were Karonga 222.5mm, NRC 166mm, Satemwa 165.7mm, Nkhotakota 155.8mm, Mzimba 154.0mm and Chitedze 112.2mm (Map 1 and Table 1).

During the period Malawi has been mostly under the influence of deep trough running across the country from Republic of Congo to Indian Ocean which caused thunderstorms and rain showers, which were locally heavy.



Rainfall as total to date shows that almost the whole country has so far received normal to above normal rainfall except at Nkhata Bay which has received 23% of normal rainfall. Notable above normal rainfall was registered at Karonga (475%), Ntchisi (325%), Mzimba (282%), Nkhotakota (256%), NRC (240%) and Mangochi (234%). See Map 2 and Table 1 for more details.

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1.2 MEAN AIR TEMPERATURE

Mean maximum indicate that Shire Valley still registered very high temperatures. Mean maximum air temperature ranged from 28.0°C at Chichiri in Blantyre City to 36.4°C at Ngabu in Shire Valley. Highest absolute maximum temperature of 43.3°C was reported at Ngabu. The lowest absolute minimum temperature of 16.0°C was reported at Mzimba.

1.3 MEAN DAILY WIND SPEEDS

At 2 meters height, observed wind speeds ranged from 0.6m/s (2.2km/hr) to 2.8m/s (10.1km/hr) at Ngabu (See Table 2 for more details).

1.4 MEAN RELATIVE HUMIDITY

Mean relative humidity slightly increased over the country. The daily average relative humidity values over Malawi ranged from 56% at Ntaja to 75% at Chitedze. The values indicate that there is an increase of moisture in the atmosphere in most areas over the country.

2. AGROMETEOROLOGICAL ASSESSMENT

The amounts of rainfall received so far over the country have improved soil moisture levels favourable for seed germination and crop growth. The increase in rains has also prompted farmers to speed up and finalise land preparations and planting. The rains so far received will also increase availability of pasture for animal feed.

The amount of rainfall for the farmer to start planting crops will depend on the type of crop, climate of a particular locality, the soil type, methods and quality of land preparation plus other aspects. However, in general, planting of crops starts when the soil has enough moisture to support germination of the particular crop one wants to grow.

3. SEASONAL OUTLOOK

According to 2004/05 seasonal outlook, Malawi is expected to receive sufficient amount of rains for water resources, agricultural production and other uses. However, distribution of these rains is expected to be erratic in space and time resulting in some areas experiencing dry spells or floods of different intensities. Updates for the December and January period indicate improved rainfall prospects for Malawi.

4. FORECAST FOR 1 – 10 DECEMBER 2004

Currently weather systems indicate that Malawi will be mostly under the influence of deep trough running across the country from Republic of Congo and moist and unstable north easterly air mass. Hence thunderstorms and rain showers, which will be locally heavy, are expected to occur in some parts of the country.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3 OF NOVEMBER 2004: PERIOD 21 – 30

STATION NAME *SOUTHERN REGION*	DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL mm	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE mm	NORMAL TO DATE mm	TOTAL TO DATE AS % NORMAL	RAINY DAYS
Balaka Township	63.0	35.0	180	88.0	104.5	84	3
Chancellor College	76.0	50.5	150	220.9	127.6	173	7
Chichiri Met.	86.3	40.9	211	236.1	142.1	166	7
Chikwawa Boma	64.4	32.6	198	90.4	79.1	114	3
Chileka Airport	50.1	45.4	110	129.0	124.1	104	4
Kasinthula Res. Stn.	60.2	20.4	295	110.7	80.4	138	4
Liwonde Township	21.4	25.7	83	124.6	73.3	170	2
Lujeri Tea Estate	86.9	67.8	128	319.7	316.2	101	7
Mangochi Met.	46.2	32.2	143	182.2	78.0	234	3
Monkey Bay Met.	58.5	16.0	366	81.4	47.0	173	6
Mulanje Boma	69.5	51.7	134	254.5	247.6	103	4
Nchalo Sucoma	22.1	14.3	155	57.8	77.0	75	2
Ngabu Met.	49.4	29.7	166	73.0	88.7	82	2
Ntaja Met.	35.1	40.3	87	133.4	81.5	164	5
Satemwa Tea Est. No.1	165.7	49.2	337	331.8	168.1	197	6
Toleza Farm	76.4	30.0	255	161.3	87.8	184	3
Thyolo Boma	94.0	30.2	311	140.2	122.3	115	3
Thyolo Met	88.9	38.7	230	194.0	143.2	135	6
Zomba Land Hus.	81.4	58.3	140	205.3	128.4	160	6

CENTRAL REGION							
Chitedze Met.	112.2	36.7	306	146.3	91.4	160	6
Dwangwa Sugar Corp.	43.1	26.3	164	114.7	99.6	115	4
L.I.A. Met.	62.7	19.9	315	80.1	68.9	116	6
Kasungu Met	60.0	32.3	186	62.9	77.2	81	5
Natural Res. College	166.0	28.1	591	202.7	84.5	240	7
Nkhotakota Met	155.8	31.9	488	183.5	71.8	256	4
Ntchisi Boma	62.0	26.1	238	162.0	49.9	325	3
Salima Met	71.0	21.3	333	79.7	48.4	165	5
Dedza RTC	59.0	22.1	267	116.4	82.7	141	8
NORTHERN REGION							
Chikangawa forest	10.9	34.3	32	52.7	96.1	55	4
Chitipa Met	79.6	50.8	157	83.3	81.9	102	4
Karonga Met.	222.5	33.4	666	222.5	46.8	475	6
Mzimba Met	154.0	24.8	621	170.3	60.4	282	7
NkhataBay Met.	12.5	27.8	45	65.9	282.9	23	3

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 3 OF NOVEMBER 2004

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
CHICHIRI	28.0	17.0	33.7	17.0	0.6	71
CHILEKA	31.0	21.3	36.2	18.6	2.5	67
NTAJA	30.7	21.7	35.5	20.5	2.4	56
CHITEDZE	28.5	18.2	33.7	16.9	0.6	75
CHITIPA	30.9	17.2	34.2	16.5	2.2	59
KASUNGU	29.9	19.2	34.5	16.8	2.1	66
KARONGA	32.4	23.0	34.7	21.0	1.6	66
K I A	28.6	18.3	33.3	16.5	1.4	70
MANGOCHI	32.4	22.2	36.3	20.8	1.4	69
MONKEY BAY	30.9	23.4	35.4	20.5	1.9	72
MZIMBA	28.8	17.7	32.3	16.0	0.6	65
NGABU	36.4	24.5	43.3	22.0	2.8	61
NKHATA BAY	32.4	21.2	35.5	19.7	2.0	69
NKHOTAKOTA	29.9	22.9	34.2	21.1	2.0	69
SALIMA	30.9	21.7	35.9	19.5	2.1	70
THYOLO	29.5	19.5	35.6	16.9	1.9	74

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