

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

21 – 31 December 2007



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*...dedicated to the agricultural community
... aimed at harmonizing agricultural activities with weather and climate*

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Highlights

- ❑ Low rainfall received at most places.
- ❑ Decrease in mean temperatures.
- ❑ Weeding in progress at some places.
- ❑ Wet conditions expected.

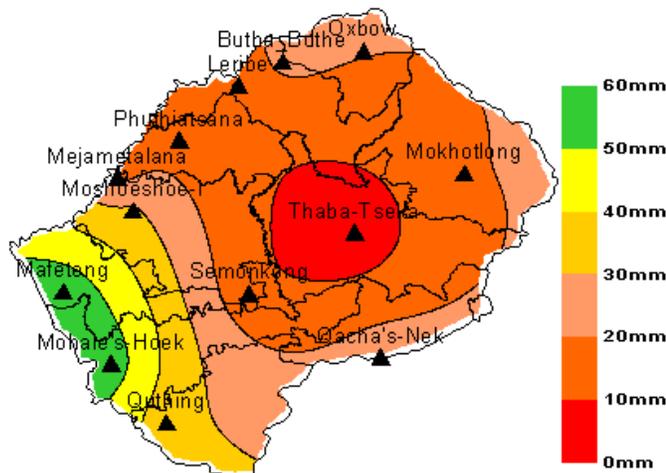
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WEATHER SUMMARY

There was a surface trough and a blocking high on the 21st. The upper airflow was zonal resulting in just partly cloudy conditions. From the 22nd the surface trough began to be established with an upper airflow meridional. The good surface and upper air moisture influx together with a cold front that was approaching from the west on the 23rd resulted in mostly scattered to widespread rain and thundershowers from the 23rd till the 25th. From the 26th the Atlantic Ocean Anticyclone began to ridge behind the front resulting in mostly partly cloudy weather conditions with some few isolated thundershowers.

RAINFALL SITUATION



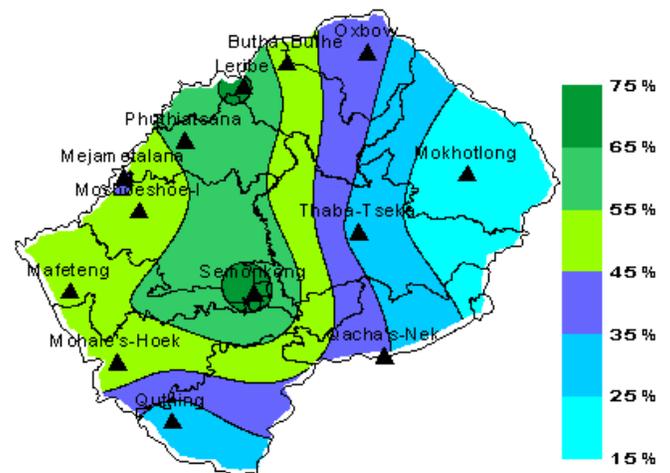
Map 1: December 2007, 3rd Dekad Rainfall

The last dekad of December 2007 experienced low rainfall activities in most parts of the country. Contrary to its predecessor, the dekad under review only recorded good rainfall in the southwestern lowlands (see Map 1, Table 1 and Fig 1). The bulk of rainfall at Mafeteng and Mohale’s Hoek was recorded on the 23rd where about 34mm of rainfall was recorded in 24 hours. The highest dekad rainfall was 56.7mm and 55.5mm at Mafeteng and Mohale’s Hoek respectively. Thaba-Tseka (2.5mm) and Leribe (9.3mm) had lowest dekad rainfall amounts (see Table 1).

The maximum number of rain days was four days at Moshoeshoe 1 and Mejametalana. This shows that rainfall spatial distribution was very poor during the dekad.

Cumulative Rainfall Percentage Departure From Normal Since September 2007.

Rainfall percentage departure from normal for the period starting from September 2007 ending third dekad of December 2007 remains at normal to above normal countrywide (Map 2, Table 1 and Fig 2). When compared with previous dekad, rainfall percentage departures have decreased in most parts of the country with the exception of Mafeteng and Mohale’s Hoek where percentage departures have increased. Butha-Buthe with 510mm (50% above normal) has highest accumulated rainfall while Mokhotlong with 303.6mm (17% above normal) has lowest accumulated rainfall.



Map 2: Rainfall % Departure from Normal (Sept-Dec 3rd Dek 07)

TEMPERATURE

Mean dekadal temperatures varied from normal to above normal in the highlands with the exception of Semonkong, but they were below normal in the lowlands. Mean temperatures decreased during the middle of the dekad countrywide due to a passage of a frontal system over the country.

The highest daily maximum temperature of the dekad was 30.5°C at Mohale’s Hoek (31st) and

Mejametalana (22nd) while Semonkong recorded lowest daily minimum temperature of 6.5°C on the 28th and 31st (see Table 1).

CROP STAGE AND CONDITIONS

Summer crops (Maize and sorghum) are at vegetative stages. On average, crops are at knee-height stage. Dry spell that prevailed during the dekad under review made it possible for farmers to do weeding. Conditions of the crops are good.

Wheat that was planted in winter is ready for harvest, and some farmers have started the operation. Conditions of the wheat range from fair to good. It is therefore advisable that it is

harvested as heavy rainfall and hailstorms can damage it. Heavy rainfall and thundershowers as well as hailstorms are characteristics of summer rains and their severity in January may be enhanced.

DEKADAL OUTLOOK

1– 10 January 2008

The dekad is expected to be mostly partly cloudy and warm to hot with rain and thundershowers at some places. However, the last three days are likely to be just partly cloudy and hot.

Table 1

Rainfall and Temperature Summaries												
STATION	Rainfall (mm)							Temperature (°C)				
	21 - 31 Dec 2007			Total From Sept 07 to 3rd Dek Dec 07				21 - 31 Dec 2007				
	ALL	Actual	Normal	Rain	Cummulative		%Dept. from	Minimum	Maximum	Dekadal	Dekadal	
NAME	(M)	R/Fall	R/Fall	Days	Actual	Normal	Normal	Lowest(Day)	Highest (Day)	Mean	Normal	Deviation
Butha-Buthe	1770	23.2	36.3	2	510.0	340.7	50	11.6 (31)	28.5 (31)	19.5	19.7	-0.2
Leribe	1740	9.3	33.1	3	487.2	290.3	68	12.0 (26)	29.5 (31)	19.9	20.2	-0.3
Mafeteng	1610	56.7	28.3	3	392.5	253.4	55	11.0 (27)	29.5 (22)	19.8	20.3	-0.5
Maseru Airport	1530	17.7	29.5	4	378.7	263.2	44	11.5 (27)	30.5 (31)	20.7	21.2	-0.5
Mohale's hoek	1600	55.5	30.5	3	412.5	271.1	52	10.5 (27)	30.5 (23)	20.2	20.8	-0.6
Mokhotlong	2200	19.1	31.9	3	303.6	259.7	17	7.0 (30)	29.4 (31)	17.6	17.1	0.5
Moshoeshoe I	1628	31.4	41.6	4	423.9	289.7	46	11.5 (27)	29.9 (22)	20.4	20.7	-0.3
Phuthiatsana	1750	18.7	23.5	3	476.9	301.6	58	11.6 (27)	30.0 (31)	20.5	21.0	-0.5
Qacha's Nek	1970	26.2	40.3	2	424.3	312.1	36	10.0 (27)	29.2 (23)	18.9	18.0	0.9
Quthing	1740	33.5	38.9	3	394.0	309.2	27	10.5 (27)	30.0 (22)	20.4	20.4	0.0
Semonkong	2458	12.7	30.4	3	458.0	267.4	71	6.5 (28, 31)	26.0 (31)	15.2	15.6	-0.4
ThabaTseka	2160	2.5	34.2	3	341.4	263.1	30	8.0 (27)	27.1 (31)	16.7	16.7	0.0

Fig. 1

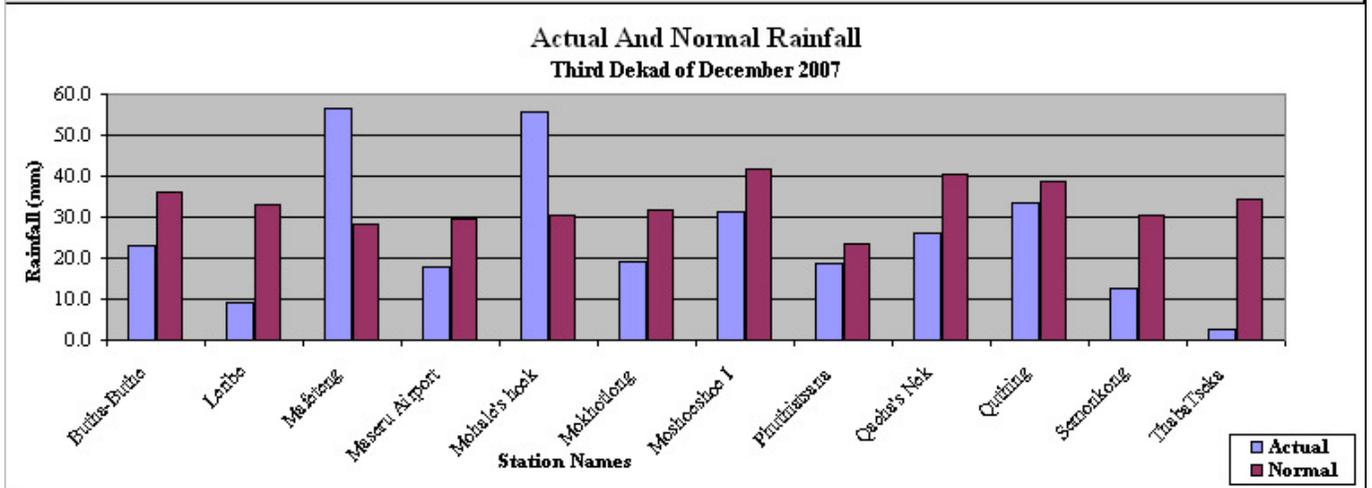
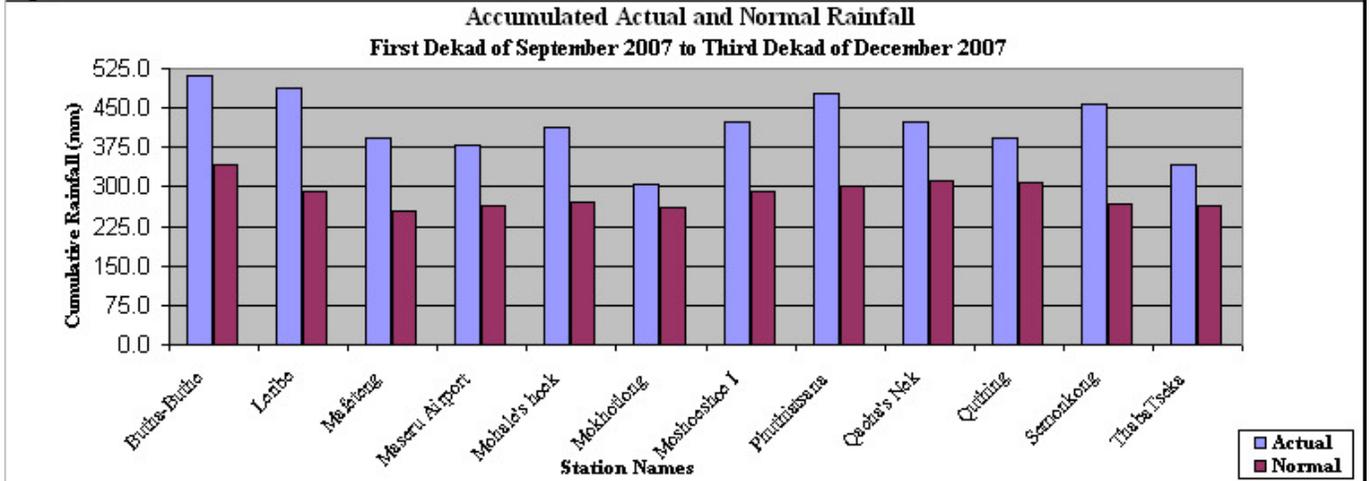


Fig. 2



Glossary

Dekad : Ten day period

Normal: Average figure over a specific time period.

% Rainfall Departure from Normal: $(\text{Actual Rainfall} - \text{Normal Rainfall}) / \text{Normal Rainfall} \times 100$

NDVI: Normalized Difference Vegetation Index – simply implies how good or bad the vegetation is for the specific period.

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And it is

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Comments and Contributions would be highly appreciated.