

# LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



## Ten-Day Agrometeorological Bulletin

11 – 20 December 2007



Issue No.08/2007-08

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

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## Highlights

- ❑ High rainfall received at most places.
- ❑ Increase in mean temperatures.
- ❑ Weeding started at some places.
- ❑ Wet conditions expected.

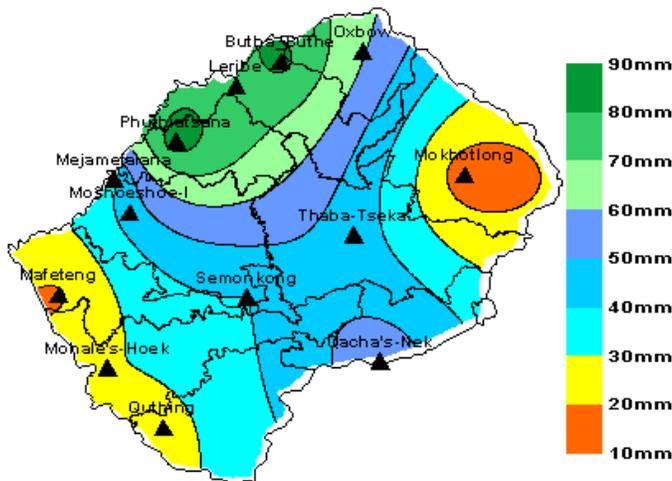
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### WEATHER SUMMARY

The combination of the surface interior trough and the associated lows together with the upper level thermal trough which was lagging behind the contour trough resulted in good moisture influx which gave widespread rain and thundershowers. That resulted in the dekad experiencing isolated to widespread rain and thundershowers.

### RAINFALL SITUATION



Map 1: December 2007, 2nd Dekad Rainfall

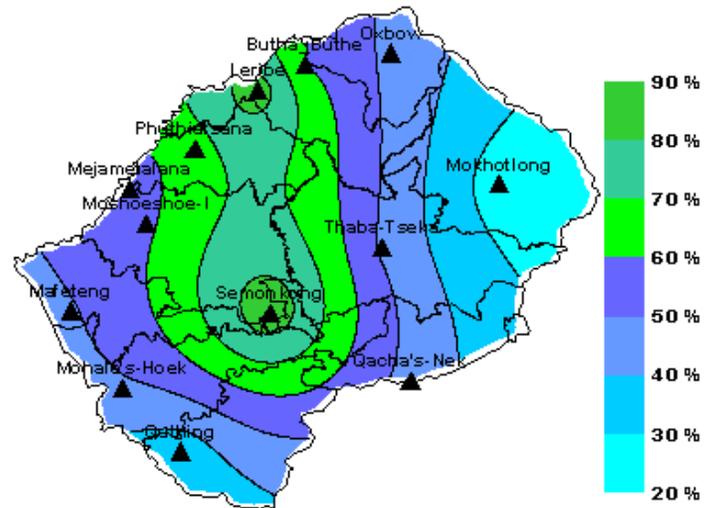
The second dekad of December 2007 recorded above normal rainfall countrywide except in Mafeteng and Mokhotlong where dekad rainfall was below normal. The highest dekad rainfall was 85.4mm at Phuthiatsana and the lowest dekad rainfall of 13.8mm was recorded at Mokhotlong. There were some heavy widespread downpours of rainfall on the 16<sup>th</sup> that resulted in flash floods at some places.

Spatial distribution of rainfall varied from place to place. Leribe had highest number of rain days with six days while Mokhotlong had only one rain day (see Table 1).

#### Cumulative Rainfall Percentage Departure From Normal Since September 2007.

Rainfall percentage departure from normal for the period September ending second dekad of

December 2007 is maintained at above normal countrywide. The highest percentage departures are observed at Semonkong (88%) and Leribe (86%). Mokhotlong (25%) and Quthing (33%) so far have lowest percentage departures (see Map 2), Table 1. Fig 2 show that Semonkong, Leribe, Phuthiatsana and Butha-Buthe are the only areas that have accumulated over 400mm of rainfall since September, while in contrast Mokhotlong remains the only area that has below 300mm of cumulative rainfall. This shows that the region covering northern lowlands to the central parts of the country have had far better rains than any other area since September.



Map 2: Rainfall % Dep. from Normal (Sept-Dec 2nd Dek 07)

### TEMPERATURE

Mean dekadal temperatures were above normal during the dekad under review (see Table 1). In particular, Mokhotlong (1.2°C) and Semonkong (1°C) had highest deviation of dekadal mean temperature from normal. Clear skies that prevailed for the most part of the dekad resulted in high daily temperatures.

The highest daily maximum temperature of the dekad was 30.4°C on the 15<sup>th</sup> at Quthing while the lowest daily minimum temperature of 5°C was recorded at Thaba-Tseka on the 19<sup>th</sup> (see Table 1).

## **CROP STAGE AND CONDITIONS**

Heavy rains of the 16<sup>th</sup> made it difficult for most of the farmers to perform their operations. Fields were waterlogged at most places.

Most crops (Maize and sorghum) are at vegetative stage although there are some crops at germination stage. Weeding has started at many places. Conditions of the crops are good.

Most of the wheat that was planted in winter can be harvested. 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**

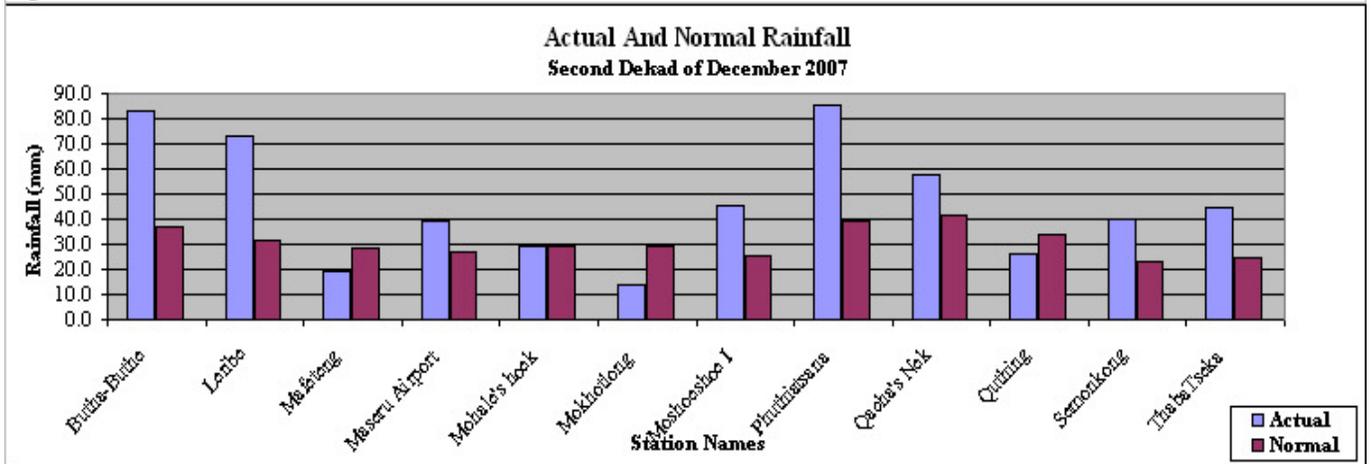
**21– 31 December 2007**

The first half of the next ten days is expected to be generally wet and scattered rain and thundershowers can be expected. However, the last half of the dekad is expected to be mostly partly cloudy with isolated thundershowers.

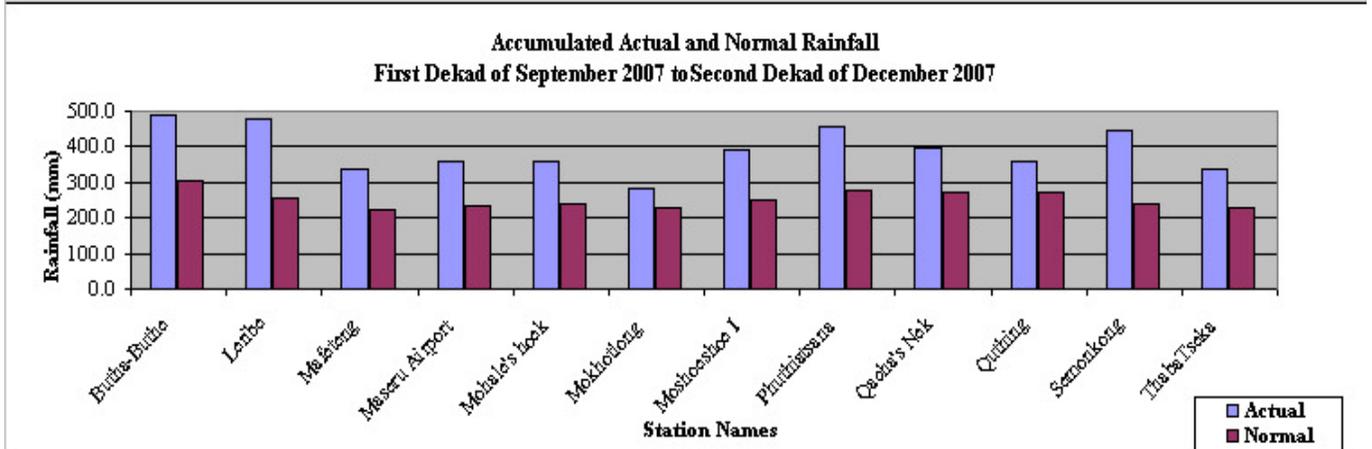
**Table 1**

Rainfall and Temperature Summaries												
		Rainfall (mm)						Temperature (°C)				
		11 - 20 Dec 2007			Total From Sept 07 to 2nd Dek Dec 07			11 - 20 Dec 2007				
STATION	ALT.	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-Butha	1770	83.0	36.6	5	486.8	304.4	60	8.5 (20)	27.5 (15)	19.6	19.3	0.3
Lenbe	1740	73.0	31.6	6	477.9	257.2	86	9.4 (19)	28.0 (13)	20.1	19.8	0.3
Mafeteng	1610	18.9	28.4	2	335.8	225.1	49	11.5 (20)	28.6 (15)	20.5	19.9	0.6
Maseru Airport	1530	39.0	26.6	2	361.0	233.7	54	11.0 (20)	30.1 (14)	21.0	20.8	0.2
Mohale's hoek	1600	29.5	29.6	2	357.0	240.6	48	10.0 (19)	30.2 (15)	21.1	20.5	0.6
Mokhotlong	2200	13.8	29.4	1	284.5	227.8	25	5.6 (19)	27.4 (15)	17.9	16.7	1.2
Moshoeshoe I	1628	45.4	25.3	2	392.5	248.1	58	11.5 (20)	29.5 (14)	20.8	20.3	0.5
Phuthiatsana	1750	85.4	38.9	3	458.2	278.1	65	10.4 (20)	28.9 (14)	20.7	20.4	0.3
Qacha's Nek	1970	57.4	41.6	5	398.1	271.8	46	6.6 (19)	28.7 (15)	18.4	17.7	0.7
Quthing	1740	26.1	34.2	2	360.5	270.3	33	10.2 (19)	30.4 (15)	20.3	20.2	0.1
Semonkong	2458	40.0	23.4	2	445.3	237	88	5.5 (19)	24.5 (15)	16.2	15.2	1.0
ThabaTseka	2160	44.7	24.6	4	338.9	228.9	48	5.0 (19)	25.2 (15)	16.8	16.4	0.4

**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.

This Bulletin is issued during the Summer Cropping Season (October – April).

And it is

Produced by the

Lesotho Meteorological Services as a contribution to the

National Early Warning Unit for Food Security.

The Unit is coordinated by the Disaster Management Authority in the

Prime Minister's Office.

Comments and Contributions would be highly appreciated.