

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

1 – 10 December 2007



Issue No.07/2007-08

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

Contents

Weather Summary
Page 1

Rainfall Situation
Page 1

Temperature
Page 1

Crop Stage and Condition
Page 1

Dekadal Outlook
Page 2

Rainfall and Temperature
Summaries
Page 3

Glossary
Page 4

Highlights

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

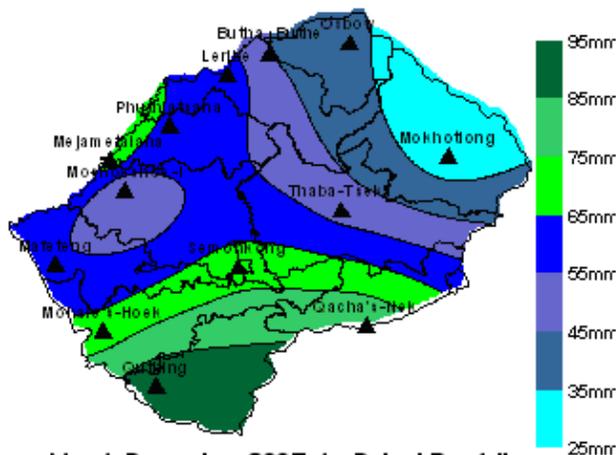
Lesotho Meteorological Services
Agrometeorological Section
P.O. Box 14515
Maseru 100, Lesotho

TEL: (+266) 22324374
FAX: (+266) 22325057/22350325
E-mail: agrometeorology@lesmet.org.ls
<http://www.lesmet.org.ls>

WEATHER SUMMARY

The last ten days were generally wet with isolated to scattered rain and thundershowers. Relatively wet air was in circulation over the interior of the subcontinent with good surface and upper levels moisture influx. The flow of air in the upper levels remained meridional for most of the period. The interior trough also remained well developed for much of the period except and on the 9th and 10th where there was a blocking high which restricted good developments of rainfall.

RAINFALL SITUATION



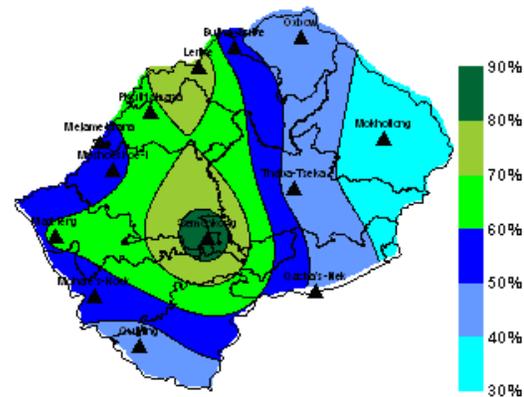
Map 1: December 2007, 1st Dekad Rainfall

The first dekad of December 2007 recorded above normal rainfall countrywide except in Butha-Buthe and Mokhotlong where dekad rainfall was normal. Spatial rainfall was also good during the dekad. The dekad under review add to a series of dekads with relatively satisfactory rainfall distribution since the current agricultural season commenced. There were incidences of hailstorms at various places in the country. Some of the hailstorms were very destructive both to agriculture and physical property.

The southern and eastern areas of the country recorded highest dekad rainfall. Quthing and Qacha's Nek experienced 93.6mm and 84.6mm of rainfall respectively. Mokhotlong with 28.6mm had lowest dekad rainfall (Map 1, Table 1 and Fig 1).

Cumulative Rainfall Percentage Departure From Normal Since September 2007.

Rainfall percentage departure from normal for the period September – December 2007 first dekad is above normal countrywide. The highest percentage departures are observed at Semonkong and the western parts of the country. The eastern and southern areas of the country have lowest rainfall percentage departure from normal (Map 2). Table 1 and Fig 2 show that Semonkong, Leribe and Butha-Buthe have accumulated over 400mm of rainfall since September, while in contrast Mokhotlong and Thaba-Tseka have so far accumulated less than 300mm.



Map 2: Rainfall % Dep. from Normal (Sept-Dec 1st Dek 07)

TEMPERATURE

Mean dekadal temperatures were below normal during the last dekad of November 2007 (Table 1). Passage of frontal systems over the subcontinent, cloudiness, wet and green surfaces as well as occurrences of hailstorms at some places contributed to lowering the temperatures. Lowest mean temperature deviation was -2°C at Moshoeshe 1.

The highest daily maximum temperature of the dekad was 27.7°C on the 10th at Maseru Airport while the lowest daily minimum temperature of 3.6°C was recorded at Semonkong on the 1st (see Table 1).

CROP STAGE AND CONDITIONS

There are few farmers who are still continuing to sow even though it may be late and crops face a risk of frost attack before they can fully mature. There were localized hailstorms at some places around Maseru on the 4th that were very destructive. Field crops, vegetables and fruits were destroyed by that hailstorm. Since crops are still at early stages of their development, most of them are expected to recover from the damage done by the hailstorm. Most if not all of the damaged vegetables were from the home gardens and replanting may be necessary at gardens although vegetables can often recover with time from the damage caused by hailstorms.

Maize and sorghum stages vary from germination to vegetative stage. Conditions of the crops are good. Farmers who planted early have started weeding. However, there are reports that rain water washed some fields away and that

some fields are waterlogged in some areas of the northern lowlands.

Wheat stages vary from watery ripe kernels to ripe. Conditions of the wheat range from fair to good. Due to characteristics of the rainfall that the country is experiencing (heavy downpours and sometimes hailstorms) put the wheat at risk of being threshed while still in the fields. That indicates that wheat should be harvested as soon as it is fully ripe.

DEKADAL OUTLOOK

11 – 20 December 2007

The next ten days are expected to be generally wet. Rainfall at most places and thundershowers are expected for much of the period with occasional cold spells. Winds will remain light to moderate.



Maize crop destroyed by hailstorm of the 4th December 2007 at Berea Pleatau (Sehlaba sa Thuathe).

Table 1

Rainfall and Temperature Summaries												
		Rainfall (mm)						Temperature (°C)				
		01 - 10 Dec 2007			Total From Sept 07 to 1st Dek Dec 07			01 - 10 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-Buthe	1770	44.5	39.0	5	403.8	267.8	51	9.0 (1)	26.0 (8)	17.4	18.7	-1.3
Leribe	1740	61.2	36.1	7	404.9	225.6	79	9.5 (1)	26.4 (2)	17.6	19.0	-1.4
Mafeteng	1610	55.9	28.7	5	316.9	196.7	61	10.0 (7)	26.4 (10)	17.7	18.9	-1.2
Maseru Airport	1530	73.6	29.9	5	322.0	207.1	55	10.9 (1)	27.7 (10)	18.5	19.9	-1.4
Mohale's hoek	1600	69.2	35.5	6	327.5	211.0	55	9.6 (4)	26.0 (5)	17.9	19.6	-1.8
Mokhotlong	2200	28.6	27.4	4	270.7	198.4	36	6.9 (7)	25.7 (2)	15.4	15.9	-0.5
Moshoeshoe I	1628	43.5	33.2	4	347.1	222.8	56	10.4 (7)	26.8 (10)	17.7	19.7	-2.0
Qacha's Nek	1970	84.6	39.1	7	340.7	230.2	48	7.4 (4)	26.4 (10)	16.4	17.0	-0.6
Quthing	1740	93.6	32.3	7	334.4	236.1	42	8.9 (7)	26.3 (10)	17.6	19.3	-1.7
Semonkong	2458	70.6	32.4	5	405.3	213.6	90	3.6 (1)	22.0 (10)	12.7	14.3	-1.6
ThabaTseka	2160	50.9	30.9	6	294.2	204.3	44	4.9 (7)	23.3 (10)	14.2	15.8	-1.6

Fig.1

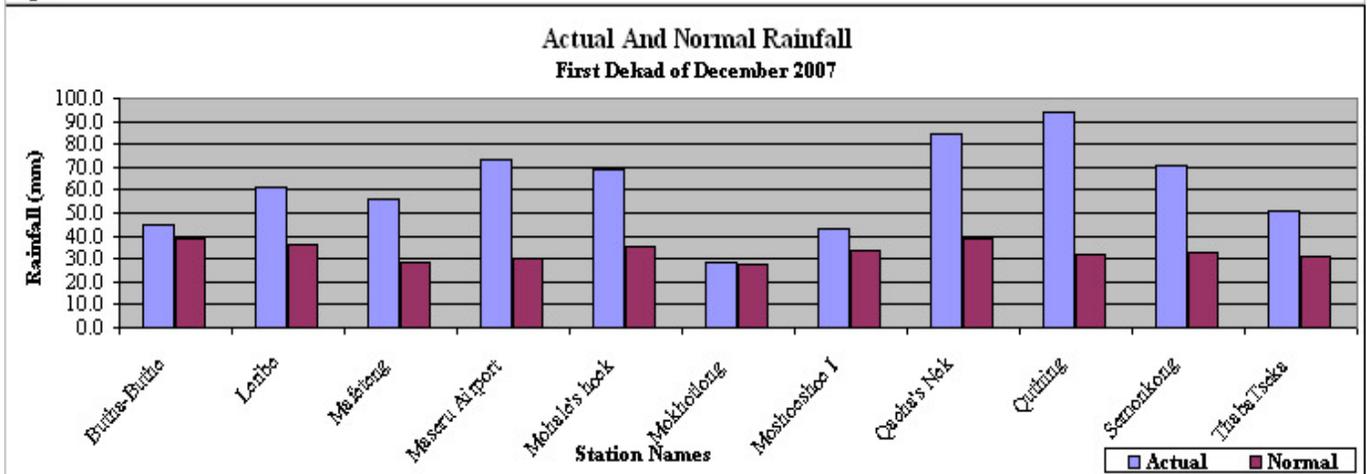
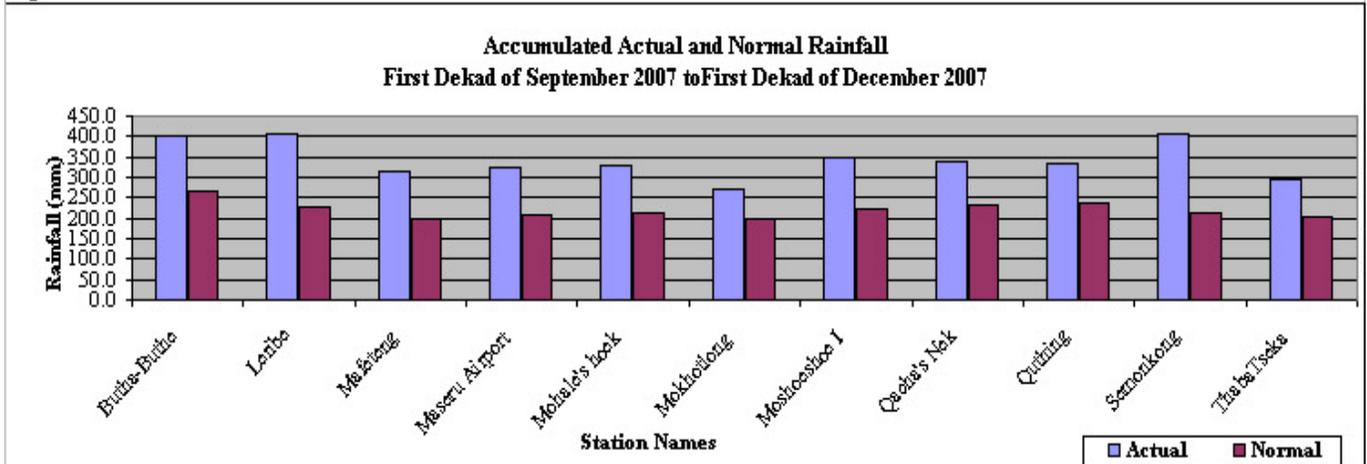


Fig.2



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.