

# LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



## Ten-Day Agrometeorological Bulletin

1 – 10 February 2008



Issue No.13/2007-08

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

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## Highlights

- ❑ Low dekadal rainfall recorded.
- ❑ Cumulative rainfall normal to above normal.
- ❑ Crops at vegetative and flowering stages.
- ❑ Warm conditions with rain at some places at times expected.

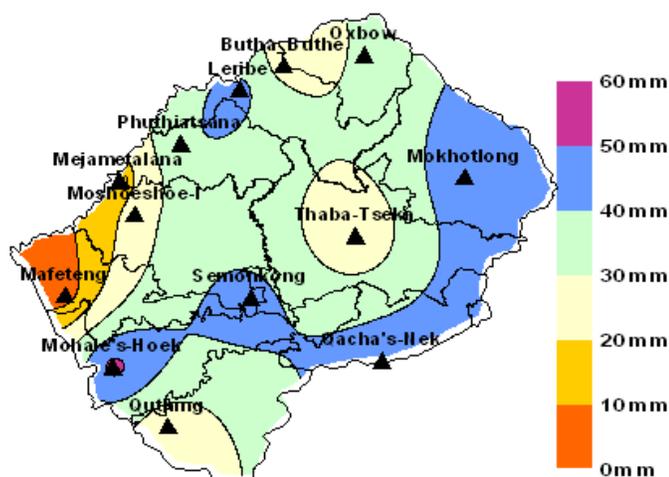
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### WEATHER SUMMARY

The first ten days of February 2008 experienced mostly isolated rain showers and thundershowers as the interior surface trough remained shallow and inactive, and it was mostly confined to the west. The reduced rainfall activities may be attributed to the development of Tropical disturbances in the South West Indian Ocean towards the end of January and are still continuing. Upper level anticyclone was still dominant indicating subsidence and settled weather.

### RAINFALL SITUATION



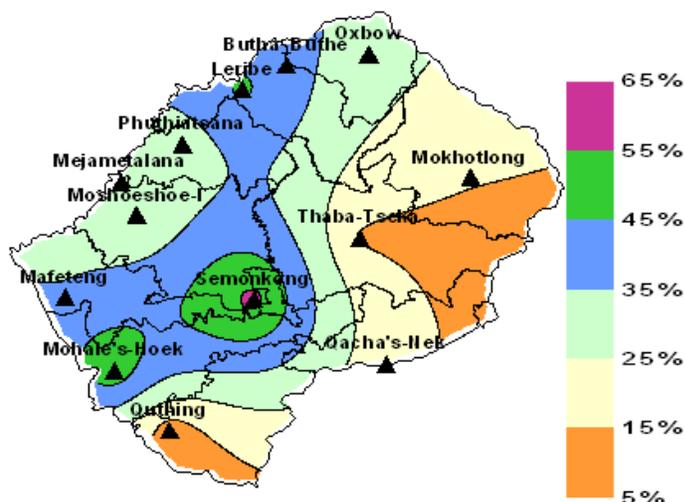
Map 1: February 2008, 1st Dekad Rainfall

The rainfall performance during the first dekad of February 2008 had great spatial distribution. The dekadal rainfall was above normal at Mohale’s Hoek, Mokhotlong and Semonkong, and normal at Leribe, Phuthiatsana and Qacha’s Nek. Otherwise remaining parts of the country had below normal dekadal rainfall. Highest and lowest dekadal rainfall was recorded at Mohale’s Hoek (53.8mm) and Mafeteng (4.6mm) respectively (see Map 1, Table 1 & Fig. 1). Qacha’s Nek had highest daily rainfall of 40mm on the 7<sup>th</sup>.

Temporal distribution of the rain was poor at Qacha’s Nek and Mafeteng with only two rain days but good at Semonkong and Thaba-Tseka with eight rain days.

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

Cumulative rainfall since September 2007 ending first dekad of February 2008 remains at normal to above normal conditions countrywide. Highest rainfall percentage departure from normal has been consistent at Semonkong and Leribe, and presently remains at 58% and 47% respectively (see Map 2, Table 1 & Fig 2). However, rainfall percentage departure from normal is generally declining during the dekad under review and its preceding dekad.



Map 2: Rainfall % Departure from Normal (Sept07-Feb 1st Dek 08)

### TEMPERATURE

Dekadal mean temperatures were below normal in some parts of the lowlands and remained above normal in the highlands (see Table 1). The highest deviation of mean temperature from normal was 0.8°C at Thaba-Tseka while the lowest was -0.7°C at Moshoeshe 1.

Generally the first three days of the month recorded high daily maximum temperature of the dekad (see Table 1). The highest daily temperature of the dekad was at Mohale’s Hoek (31°C) on the 1<sup>st</sup>. Semonkong (8°C) recorded the lowest daily temperature of the dekad on the 6<sup>th</sup>.

### CROP STAGE AND CONDITIONS

Maize and sorghum crop are at flowering stages and in good conditions. AgrometShell model output for maize show a water satisfaction index range of 72 to 100 throughout the country showing good prospects for the maize crop. However, there are some crops in the highlands that are still at various stages of vegetative stages and are therefore facing great risk of frost attack.

*Normal* dates for the onset of frost in the highlands is in March although the dates can differ from place to place. If frost can indeed occur in March, most of the crops will not have fully matured and the damage can be huge.

Summer wheat in the highlands is at vegetative stages and is in good conditions.

### **DEKADAL OUTLOOK**

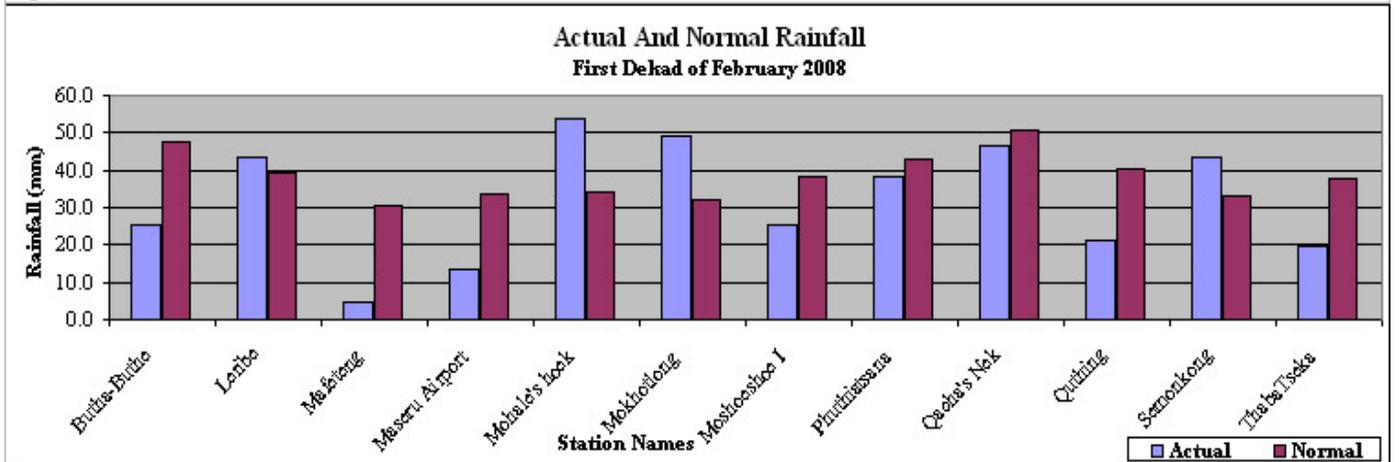
**11– 20 February 2008**

There is a chance of scattered to widespread rain showers during the first days of the dekad especially in the northeast. In the south, there is still a high likelihood of receiving isolated rain showers and thundershowers in the coming dekad. Temperatures are expected to remain generally warm to hot.

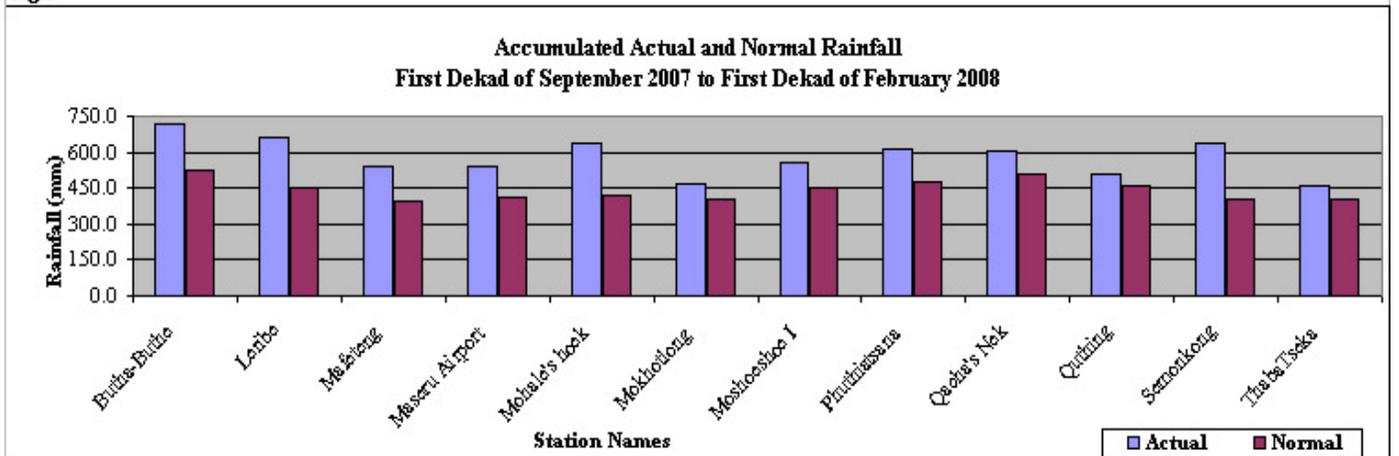
**Table 1**

Rainfall and Temperature Summaries												
		Rainfall (mm)						Temperature (°C)				
		01 - 10 Feb 2008			Total From Sept 07 to 1st Dek Feb 08			01 - 10 Feb 2008				
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	25.6	47.4	6	721.7	521.7	38	12.5 (10)	27.5 (1,2)	19.9	20.0	-0.1
Leribe	1740	43.2	39.1	6	660.4	450.0	47	13.5 (10)	28.0 (2)	20.0	20.5	-0.5
Mafeteng	1610	4.6	30.3	2	538.7	395.9	36	12.1 (3)	30.5 (1)	21.1	20.7	0.4
Maseru Airport	1530	13.6	33.8	4	538.7	408.9	32	13.9 (4,6)	29.6 (1)	21.0	21.4	-0.4
Mohale's hoek	1600	53.8	34.1	6	633.5	417.9	52	12.5 (4)	31.0 (1)	21.3	21.2	0.1
Mokhotlong	2200	49.0	32.3	7	467.0	404.3	16	8.5 (6)	29.0 (3)	18.0	17.4	0.6
Moshoeshoe I	1628	25.3	38.3	5	559.6	448.6	25	13.5 (6)	*	20.6	21.3	-0.7
Phuthiatsana	1750	38.4	43.1	5	610.4	472.9	29	13.7 (4)	28.9 (1)	20.6	20.6	0.0
Qacha's Nek	1970	46.6	50.8	2	605.9	507.0	20	9.6 (4)	29.2 (3)	18.4	18.2	0.2
Quthing	1740	21.2	40.1	5	506.7	462.4	10	13.9 (4)	30.5 (2)	21.3	20.9	0.4
Semonkong	2458	43.4	33.2	8	633.7	401.0	58	8.0 (6)	23.9 (1)	15.5	16.0	-0.5
ThabaTseka	2160	19.7	37.6	8	460.1	403.6	14	7.1 (4)	26.2 (1)	17.3	16.5	0.8

**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.