

# LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



## Ten-Day Agrometeorological Bulletin

21 – 31 January 2008



Issue No.12/2007-08

*...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
- ❑ Close monitoring of conditions still needed at Mokhotlong
- ❑ Weeding still in progress
- ❑ Warm conditions with rain at some places at times expected

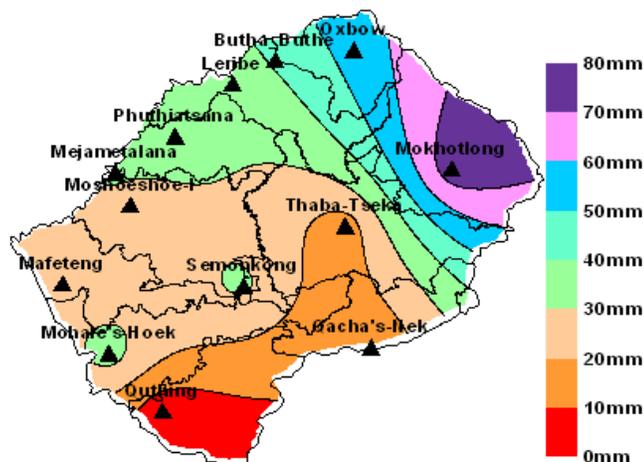
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### WEATHER SUMMARY

The last ten days were dominated by interior surface trough, which advected tropical moist air from the north. The moisture advection into the interior was further enhanced by the passage of weak cold fronts over the southern interior. However, the dekad received below normal rainfall with the exception of Mokhotlong.

### RAINFALL SITUATION



Map 1: January 2008, 3rd Dekad Rainfall

Generally the last dekad of January 2008 was dry. Dekadal rainfall was below normal except in Mokhotlong. This is the first time that Mokhotlong records good rainfall after a series of consecutive dry dekads. The highest dekad rainfall was at Mokhotlong (76.8mm) in the northeast and the lowest dekad rainfall was at Quthing (2.6mm) in the south (see Map 1, Table 1 & Fig. 1). The highest daily rainfall was 45.8mm at Mokhotlong on the 28<sup>th</sup>.

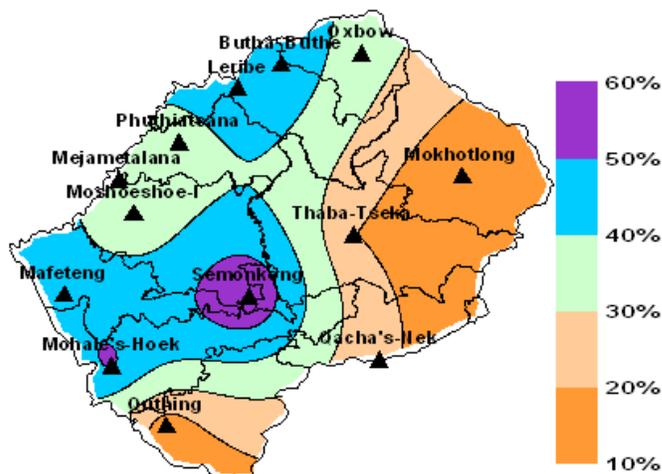
The average number of rain days is four (4) days. However, Quthing had the lowest number of rain days with only a single day with rainfall while the highest number of rain days was eight days at Phuthiatsana.

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

Although there was suppressed rainfall during the dekad under review, rainfall percentage departure

from normal for the period starting from September 2007 ending third dekad of January 2008 remains at normal to above normal countrywide (Map 2, Table 1 and Fig 3). There was an average decrease of 13% of cumulative rainfall percentage departure from normal. Nevertheless, cumulative rainfall percentage departure at Mokhotlong increased from last dekad's value of 5% to the current value of 12%.

The improved rainfall at Mokhotlong during the dekad under review may not be enough to relief the situation at Mokhotlong. It will hugely depend on the other coming dekads. Thus the conditions may need a close monitoring.



Map 2: Rainfall % Departure from Normal (Sept 07-Jan 3rd Dek 08)

### TEMPERATURE

General dekadal mean temperatures were below normal in the lowlands but above normal in the highlands (see Table 1). The highest deviations of mean temperature from normal were 0.6°C at Quthing and Qacha's Nek while the lowest was -0.5°C at Phuthiatsana.

The last day of the month (31<sup>st</sup>) recorded the highest daily maximum temperature of the dekad countrywide. The highest daily temperature of the dekad was at Quthing (32.4°C). And generally the daily minimum temperatures were lowest on the 29<sup>th</sup> with Semonkong (6.5°C) experiencing the lowest daily temperature of the dekad.

## **CROP STAGE AND CONDITIONS**

There were water deficits of varying magnitudes to the crops during the dekad under review. However, crops were not seriously affected and therefore they are still in good conditions. Crops stages range from late vegetative stages to tasselling. It is evident that some fields could not be weeded on time and some of the reasons could be that fields were too wet and/or waterlogged. Some farmers are currently weeding crops that are above knee-height.

Winter wheat is fully harvested and is removed from the fields. Summer wheat in the highlands is at vegetative stages and is good.

## **DEKADAL OUTLOOK**

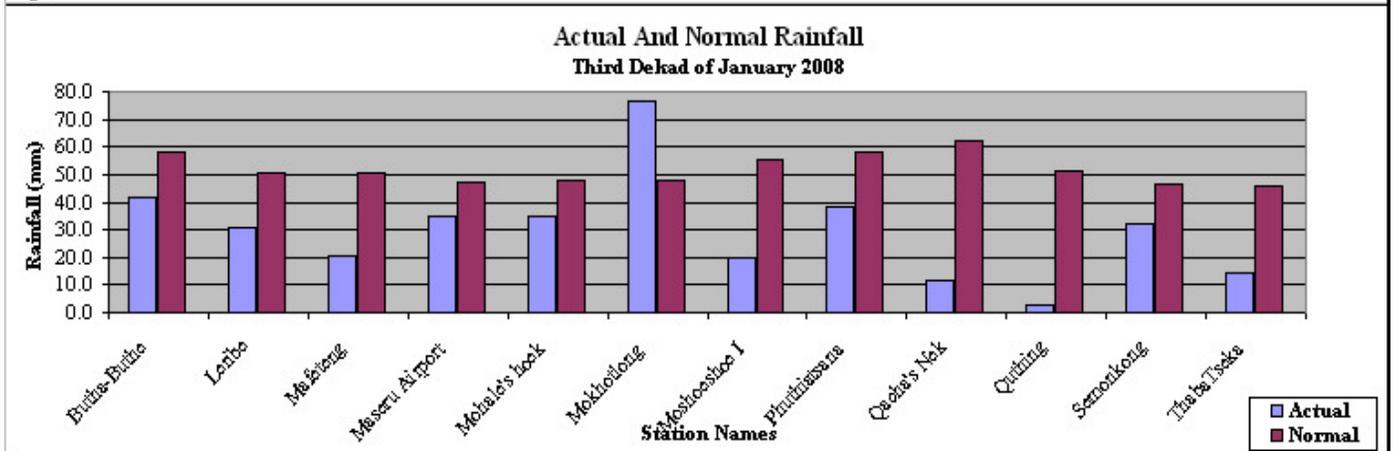
**1– 10 February 2008**

Unlike the last ten days the next coming dekad is expected to experience mostly isolated rain and thundershowers becoming scattered at times. Intense thunderstorms associated with hailstorms and strong winds are anticipated at times. Temperatures are expected to remain warm to hot.

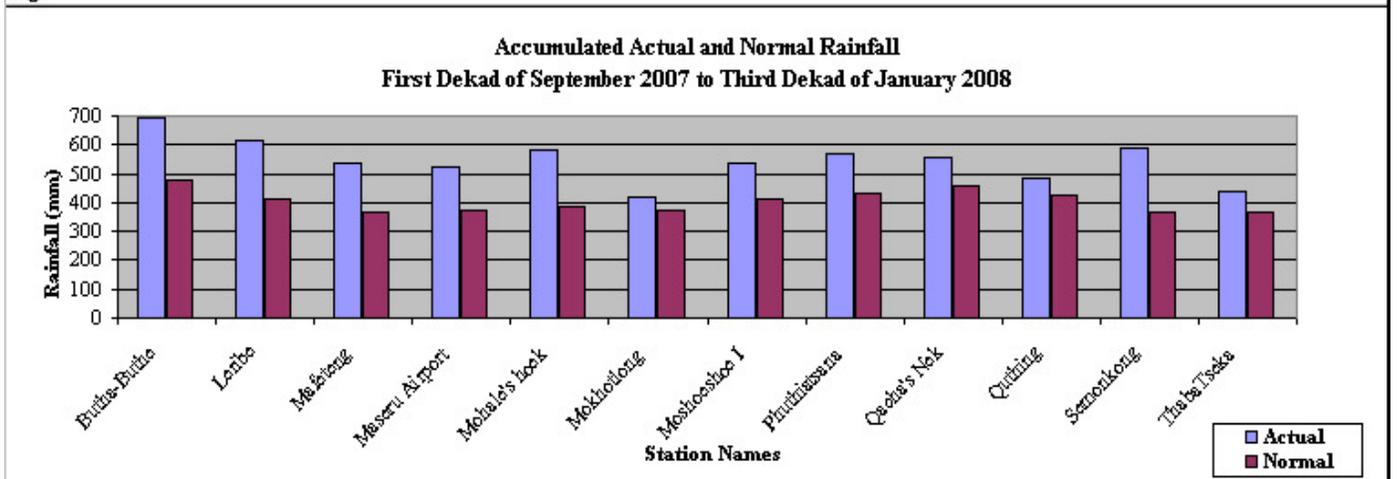
**Table 1**

Rainfall and Temperature Summaries												
		Rainfall (mm)						Temperature (°C)				
		21 - 31 Jan 2008			Total From Sept 07 to 3rd Dek Jan 08			21 -31 Jan 2008				
STATION	ALT.	Actual	Normal	Rain	Cumulative		%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	41.8	58.0	5	696.1	474.3	47	10.8 (30)	27.4 (31)	19.6	20.0	-0.4
Leribe	1740	30.7	50.5	6	617.2	410.9	50	12.2 (29)	29.4 (31)	20.5	20.6	-0.1
Mafeteng	1610	20.8	50.6	2	534.1	365.6	46	12.9 (21)		21.1	20.7	0.4
Maseru Airport	1530	35.0	47.1	5	525.1	375.1	40	13.0 (29)	30.6 (31)	21.6	21.6	-0.1
Mohale's hoek	1600	34.7	47.9	5	579.7	383.8	51	12.5 (29)	31.4 (31)	21.3	21.2	0.1
Mokhotlong	2200	76.8	48.2	5	418	372.0	12	8.9 (29)	27.8 (31)	18.0	17.8	0.2
Moshoeshoe I	1628	20.1	55.6	5	534.3	410.3	30	12.5 (29)	30.5 (31)	21.2	21.3	-0.2
Phuthiatsana	1750	38.0	58.2	8	572	429.8	33	12.6 (29)	30.6 (31)	20.6	21.1	-0.5
Qacha's Nek	1970	11.8	62.0	2	559.3	456.2	23	10.9 (29)	27.7 (31)	19.0	18.4	0.6
Quthing	1740	2.6	51.3	1	485.5	422.3	15	13.6 (21)	32.4 (31)	21.6	21.0	0.6
Semonkong	2458	32.1	46.2	3	590.3	367.8	60	6.5 (29)	25.5 (31)	16.0	16.0	0.0
ThabaTseka	2160	14.6	45.8	5	440.4	366.0	20	9.1 (29)		17.5	17.3	0.2

**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.