

# LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



## Ten-Day Agrometeorological Bulletin

11th – 20<sup>th</sup> October 2005



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

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## Highlights

- ❑ Above normal rains in the northern parts.
- ❑ Warm weather conditions prevailed through the dekad countrywide.
- ❑ Sufficient soil moisture summer cropping.
- ❑ Vegetation low over the entire country.

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**WEATHER SUMMARY**

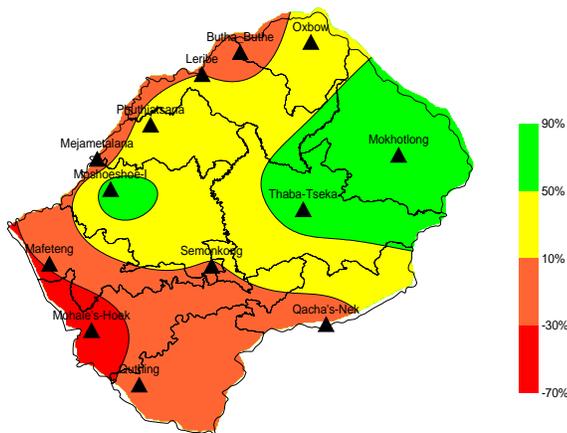
The surface trough of low pressure dominated the second dekad of October leading to a variation of isolated to scattered rainshowers and thunderstorms. From the 10<sup>th</sup> to 13<sup>th</sup> mainly light and isolated showers occurred, as compared to 2<sup>nd</sup> half of the dekad when the trough became deeper and coupled with shallow upper level troughs resulting in heavier rainshowers. Temperatures were generally cool to warm.

**RAINFALL SITUATION**

The rains received throughout the whole country are relatively good, however, there are some exceptions where below normal rainfalls were recorded. The highlands received exceptionally good rains because places like Thaba-Tseka and Mokhotlong received 67.5mm and 43.8mm respectively, hence the dekadal rain can be considered good for the farmers to do their work on the fields.

**Cumulative percentage rainfall departure from Normal**

**Fig.1: Cumulative rainfall departure from normal since 1<sup>st</sup> Sept to 20<sup>th</sup> October 2005**



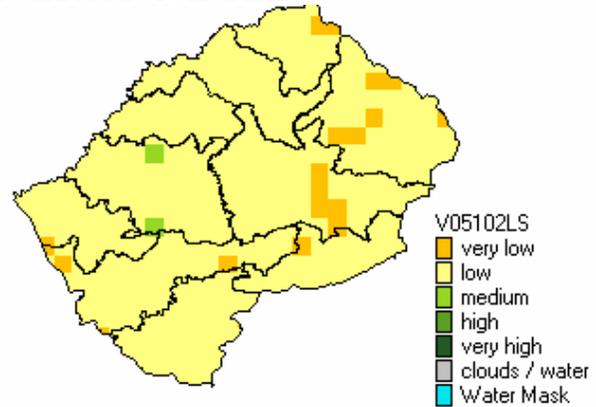
The Actual Cumulative rainfall (1<sup>st</sup> September 2005 to 20<sup>th</sup> October 2005) is above normal. (Table 1 & Fig 4). Mokhotlong, Ox-Bow in the northern parts and Moshoeshoe 1 in the central parts are 84%, 25% and 80% above the normal cumulative rainfall. This has provided adequate soil moisture for summer cropping. However, the southern parts of the country still have

negative cumulative percentage departure from normal ranging from -63% in Mohale’s Hoek and -12% in Quthing.

**TEMPERATURE**

Above normal temperatures were experienced over the entire country. Temperature deviations were positive throughout the whole country with Mafeteng and Ox-bow registering the deviations of 1.6°C and 2.8°C (Table 1). The lowest temperatures were recorded on the 13<sup>st</sup> in most places while on the other hand highest temperatures were registered on the 11<sup>th</sup>.

**VEGETATION INDEX**



**Fig.2**

The vegetation index (NOAA NDVI satellite image) for the 2<sup>nd</sup> dekad of October 2005 depicts that the degree of greenness of the vegetation is low over the entire country. Some parts of the northern highlands show very low degree of greenness. It is at its lowest in the Mokhotlong and Thaba Tseka districts.

**CROP STAGE AND CONDITION**

In the highlands, summer crops are already planted although most of them are at germination stage. Some crops were reported to have been badly affected by frost at Mokhotlong a few weeks after germination as a result, the farmers had to re-plough their fields. In the lowlands, no major Agricultural Activities are taking place, except that the fields are being followed as to prepare them for the summer

crops. However, in some places like Maseru on some fields maize is seen even though it is in its early stage of vegetation. Apart from that the wheat planted in Winter is approaching maturity stage in the lowlands.

warm with showery days being cooler and windy.

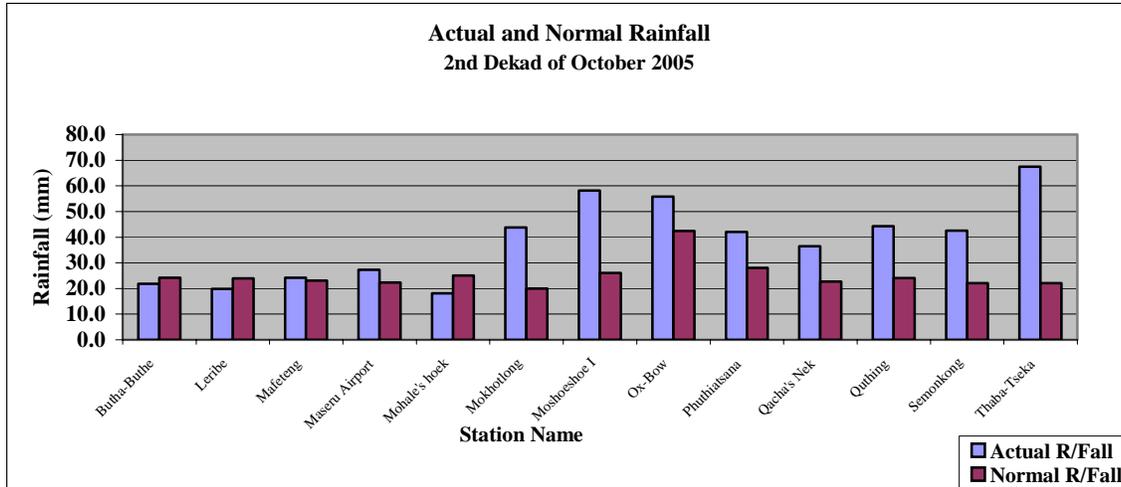
### **DEKADAL OUTLOOK**

21<sup>st</sup> – 31<sup>st</sup> October 2005

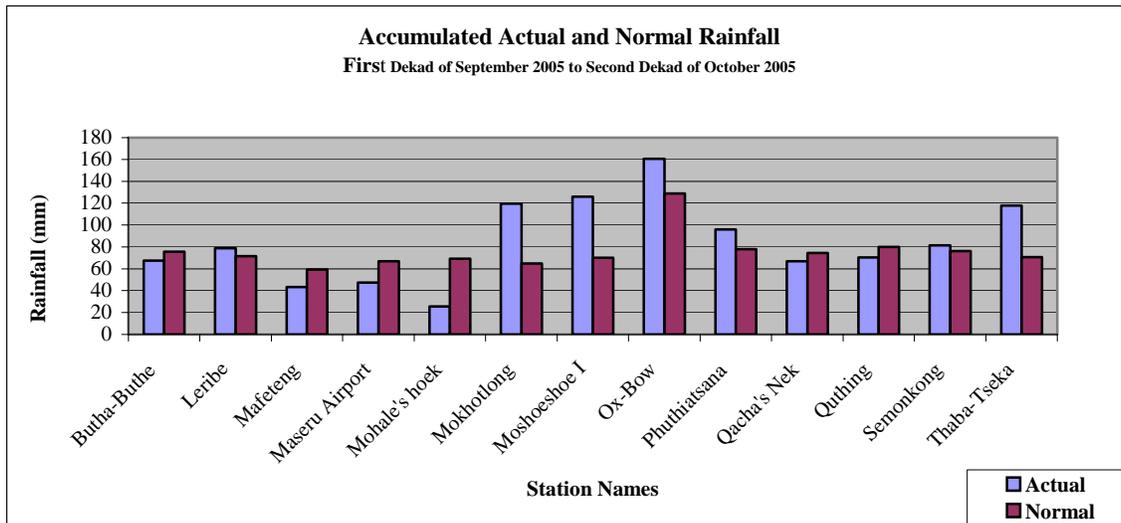
The third dekad is expected to be more or less like the second. Partly cloudy and cool to warm weather conditions are expected with isolated to scattered showers and thunder showers, otherwise it will be fine to partly cloudy and

Table 1												
		Rainfall (mm)						TEMPERATURE (°C)				
		11 -20th Oct 2005			Total From Sept. 05 to 2nd Dek Oct. 05			11 -20th Oct 2005				
STATION	ALT.	Actual	Rain	Normal	Cum.Act & Nor. Rainfall			Minimum	Maximum	Dekadal	Dekadal	
NAME	(M)	R/Fall	Days	R/Fall	Actual	Normal	Normal	Lowest(Day)	Highest (Day)	Mean	Normal	Dev.
Butha-Buthe	1770	21.8	4	24.2	67.5	75.6	-11	9.6 (13)	28.6 (11)	19.0	16.3	2.7
Leribe	1740	19.9	7	24.0	78.8	71.5	10	6.2 (13)	29.1 (11)	19.0	16.5	2.5
Mafeteng	1610	24.2	4	23.1	43.2	59.3	-27	4.9 (13)	27.5 (11)	17.7	16.1	1.6
Maseru Airport	1530	27.3	5	22.3	47.5	67.0	-29	7.6 (13)	30.1 (11)	19.8	17.1	2.7
Mohale's hoek	1600	18.1	5	25.0	25.5	69.3	-63	5.3 (13)	30.6 (11)	19.4	16.7	2.7
Mokhotlong	2200	43.8	5	20.0	119.6	64.9	84	7.0 (13)	27.0 (20)	16.1	13.6	2.5
Moshoeshoe I	1628	58.2	5	26.1	125.9	70.1	80	6.5 (13)	29.4 (11)	19.0	17.1	1.9
Ox-Bow	2600	55.8	6	42.4	160.6	128.8	25	3.5 (13)	20.5 (11)	11.7	8.9	2.8
Phuthiatsana	1750	42.0	6	28.0	96.0	78.0	23	7.4 (13)	-	-	16.8	-
Qacha's Nek	1970	36.5	5	22.7	66.9	74.5	-10	7.0 (13)	28.2(11)	17.6	14.6	3.0
Quthing	1740	44.3	3	24.1	70.4	80.1	-12	8.2 (13)	30.0 (11)	19.0	16.5	2.5
Semonkong	2458	42.6	7	22.1	81.3	76.1	7	-2.4 (13)	25.0 (11)	14.1	11.7	2.4
Thaba-Tseka	2160	67.5	5	22.1	117.8	70.6	67	7.5 (13)	25.4 (11)	15.5	13.4	2.1

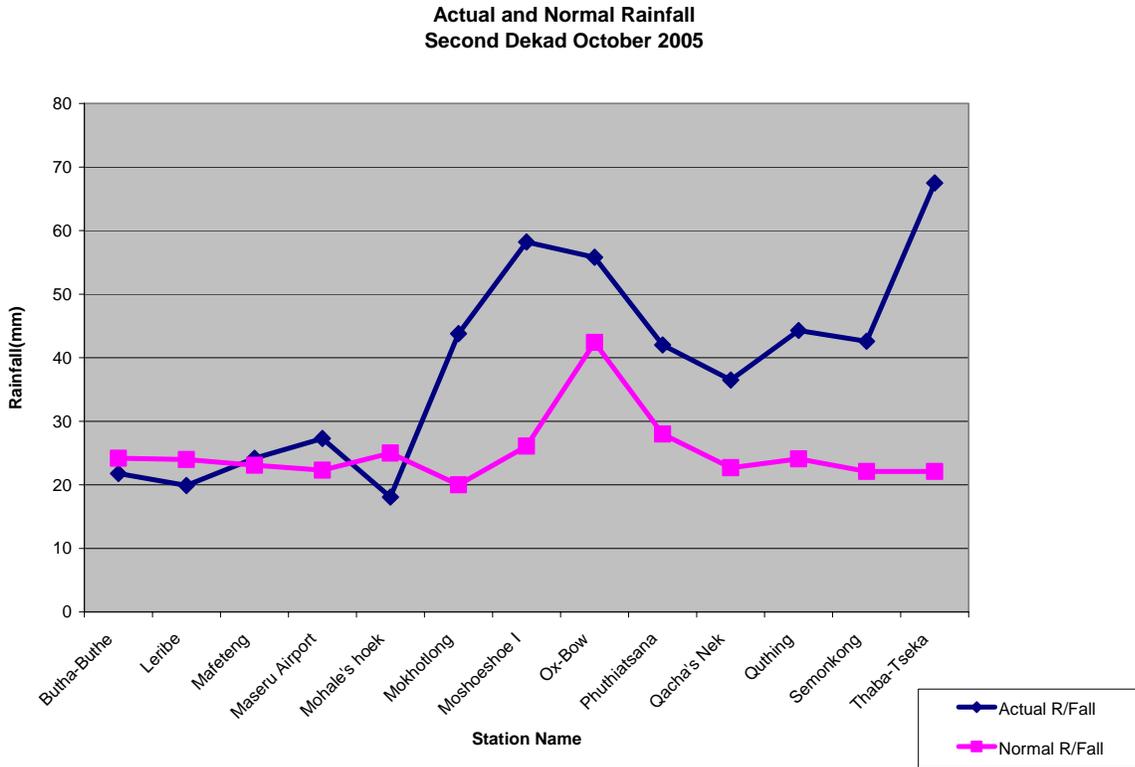
**Fig. 1**



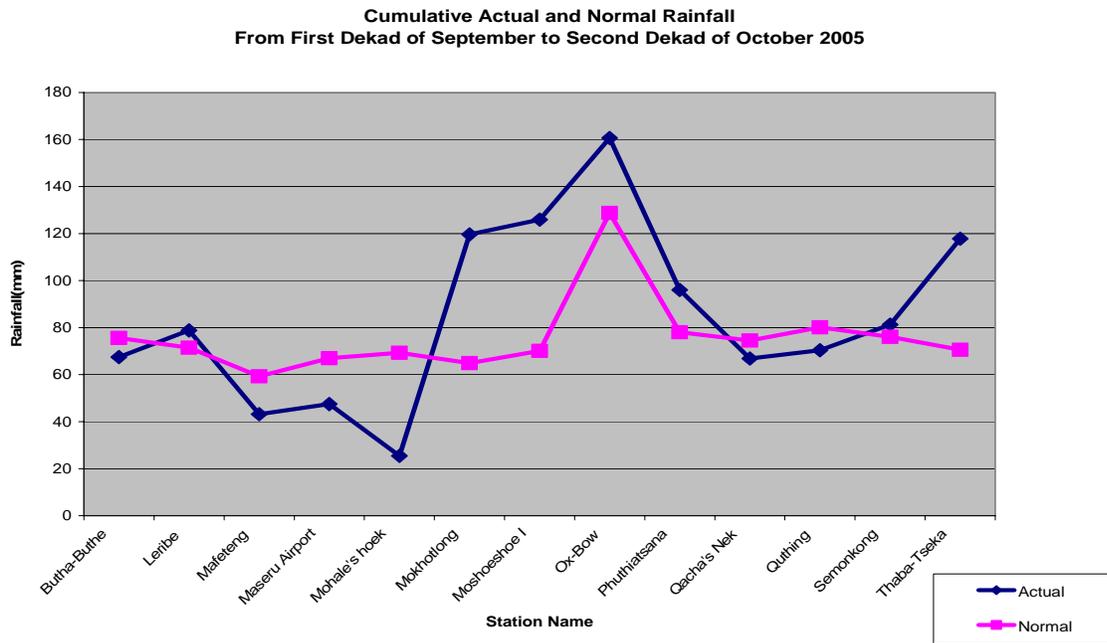
**Fig. 2**



**Fig. 3**



**Fig. 4**



## Glossary

Dekad : Ten day period

Normal: Average figure over a specific time period.

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

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

And it is

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Comments and Contributions would be highly appreciated.