

# LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



## Ten-Day Agrometeorological Bulletin

21<sup>st</sup> –31<sup>st</sup> October 2006



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

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### ***Highlights***

- ❑ Below rainfall situation during this period.
- ❑ Planting is still in progress.
- ❑ Low vegetation cover dominated.
- ❑ Wet weather condition anticipated.

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

TEL: (+266) 22324374/22324425  
FAX: (+266) 22325057/22350325  
E-mail: [agrometeorology@lesmet.org.ls](mailto:agrometeorology@lesmet.org.ls)  
<http://www.lesmet.org.ls>

**WEATHER SUMMARY**

The first half of the dekad was dominated by a Surface Ridge which resulted in mostly fine weather for most parts of the country. However, the second half of the dekad was under the influence of an Interior Trough which drew moisture from the tropics coupled with an influx of moist air from the Indian Ocean Anticyclone. This resulted in the country receiving some significant convective rainfall accompanied by thunder.

**RAINFALL SITUATION**

Isolated to scattered rainfall occurred in most parts of the country. Most of the areas recorded much below normal dekad rainfall, impeding on a continuous build up in soil moisture. The districts of Mafeteng and Mokhotlong received (see table 1).

**Cumulative percentage rainfall departure from Normal**

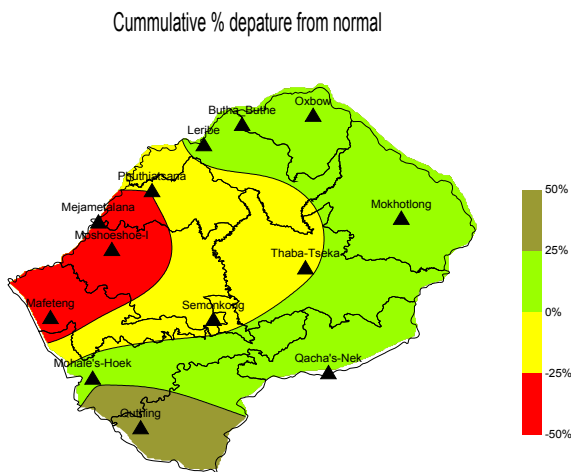


Fig.1: Cumulative rainfall departure from normal since 1<sup>st</sup> Sept to 3rd dek.Oct 06.

Cumulative percentage rainfall departure from normal plot in fig.1 shows a shortage of rainfall occurrence over the southern and central parts of the country where rainfall deficit falls within – 50% to 0% (red and yellowish shaded areas). The remainder of the country received fairly good rainfall (light and dark greenish shades). Although these regions seem to have received good rains, the temporal rainfall distribution was

poor as the total rain days ranged between 2 and 4 days which indicates that dry spells occurred during this period.

**TEMPERATURE**

High temperatures were registered during this period. This is precisely shown in table 1 where only positive temperature deviations registered throughout the country. These positive temperature deviations from normal ranged between 1.9 and 3.3 (see table 1 under temperature). However, a drop in temperature occurred on the 26<sup>th</sup> where Semonkong registered 3.7<sup>0</sup>C as lowest temperature for this dekad. And the highest temperature of 32<sup>0</sup>C was registered at Maseru on the 24<sup>th</sup>.

**CROP STAGE AND CONDITION**

During this dekad it was found that a number of farmers have already started planting summer crops, particularly maize and sorghum. These crops at certain places are at germinating stage even though planting is still in progress. Due to high moisture content in the soil, these summer crops stand a very good chance of growing successfully, even though the pests and weeds may bring some negative impacts towards crop development and growth.

**VEGETATION CONDITION**

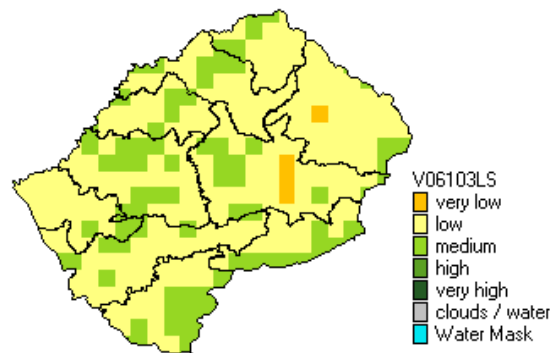


Fig.2: Normalized Difference Vegetation Index(NDVI) Image for 3<sup>rd</sup>Dekad of October 2006.

The dekad under discussion was dominated by low vegetation throughout the country with some

patches of medium vegetation scattered all over the country. This is an implication that, the pastures and rangelands have already started recovering due to improved rainfall received since the beginning of the growing season.

### **DEKADAL OUTLOOK**

01<sup>st</sup> – 10<sup>th</sup> October 2006

Generally wet weather conditions are anticipated throughout this period where scattered to widespread rainfall and thundershowers are expected. Temperatures will mainly be mild to warm at night while day-time temperatures will be warm to hot.

**Table 1**

		Rainfall and Temperature Summaries										
		Rainfall (mm)				Total From Sept06 to 3rd Dek Oct06		Temperature (°C)				
		21 - 31 Oct 2006					21 - 31 October 2006					
STATION	ALT.	Actual	Normal	Rain			%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	31.4	34.2	4	113.1	109.8	3	8.5 (22)	30 (25)	19.0	16.6	2.4
Leribe	1740	22.7	25.6	3	104.8	97.1	8	8.0 (22)	30.5 (25)	18.9	17.0	1.9
Mafeteng	1610	2.0	28.1	1	46.6	87.4	-47	8.0 (22)			16.5	
Maseru Airport	1530	9.4	27.0	3	68.6	94	-27	8.8 (22)	32.0 (24)	20.0	17.8	2.2
Mohale's hoek	1600	17.1	25.7	3	116.0	95	22	9.5 (22, 23)	30.0 (24)	19.0	17.2	1.8
Mokhotlong	2200	1.9	26.4	3	95.0	91.3	4	7.0 (23)	29.2 (25)	17.4	14.1	3.3
Moshoeshoe I	1628	14.1	35.7	4	55.8	105.8	-47	9.5 (22)	31.4 (24)	19.8	17.5	2.3
Ox-Bow	2600		54.8			183.6					9.3	
Phuthiatsana	1750	25.7	30.4	3	81.8	108.4	-25	9.9 (23)	31.5 (24)	20.1	17.5	2.6
Qacha's Nek	1970		31.4			105.9					14.9	
Quthing	1740	23.6	30.7	3	158.1	110.8	43	9.5 (24)	30.5 (24)	19.5	17.0	2.5
Semonkong	2458	21.7	31.8	4	101.3	107.9	-6	3.7 (26)	25.6 (24)	14.2	12.0	2.2
ThabaTseka	2160	13.5	29.7	4	98.9	100.3	-1	4.5 (23)	26.8 (24)	16.4	13.7	2.7

Fig.3

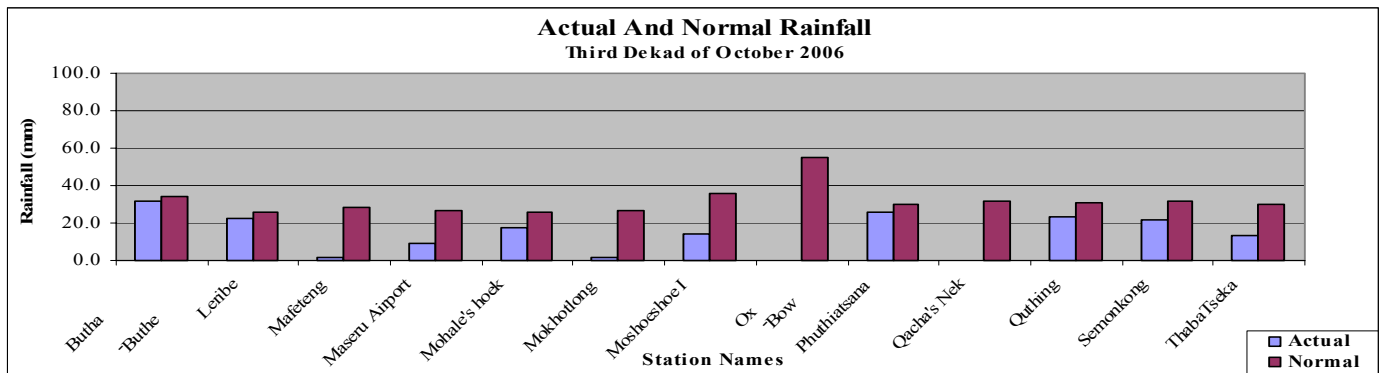
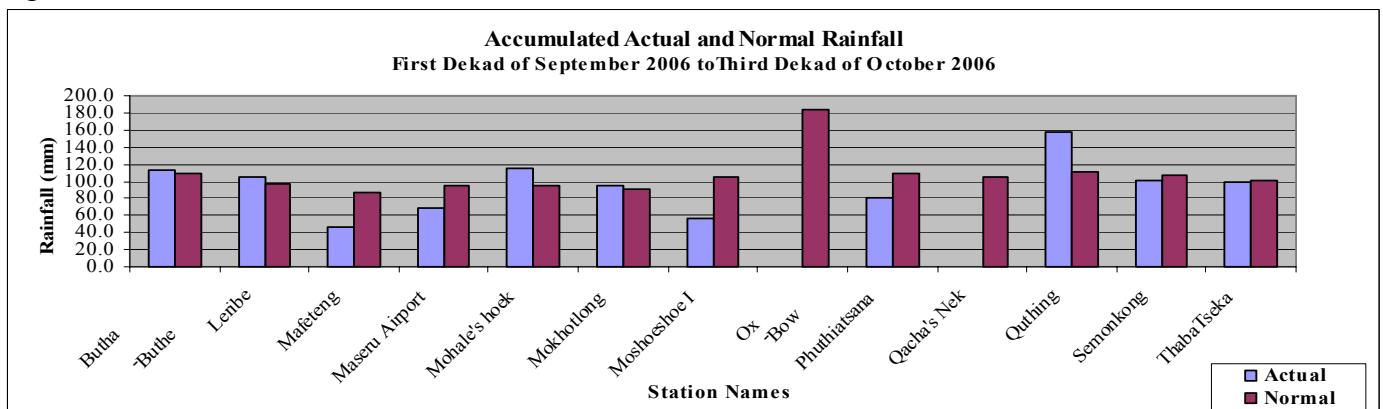


Fig.4



Glossary

Dekad : Ten day period

Normal: Average figure over a specific time period.

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

NDVI: Normalized Difference Vegetation Index -

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And it is

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Comments and Contributions would be highly appreciated.