

# LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



## Ten-Day Agrometeorological Bulletin

1<sup>st</sup> - 10<sup>th</sup> October 2003



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

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## Highlights

- ❑ Virtually no rainfall was registered for the dekad.
- ❑ Negative percentage rainfall departure from normal registered.
- ❑ Considerably high temperatures were recorded.
- ❑ Summer cropping not commenced in the lowlands.
- ❑ Crops at emergence stage in the high land areas.
- ❑ Normal rainfall anticipated mid November.

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**DROUGHT SITUATION**

Severe drought conditions started as far back as April. The months subsequent to April registered little or no rainfall, as such depletion of soil moisture became severe so that up to now, soil moisture remains unfavourable to support summer cropping. Drought conditions are expected to continue until mid November.

**Weather Summary**  
1<sup>st</sup> – 10<sup>th</sup> October 2003

The first dekad of October (1<sup>st</sup> – 10<sup>th</sup>) was generally dry and hot. A high-pressure system was dominant over the interior and as a result hot weather conditions prevailed.

**RAINFALL SITUATION**  
1<sup>st</sup> – 10<sup>th</sup> October 2003

The first dekad of October (1<sup>st</sup> - 10<sup>th</sup>) received virtually no rainfall, however, some places registered very insignificant rainfall amounts (see table1).

Total rainfall since September 2003 to date shows below normal rainfall at all reporting stations (see table 1). This is also emphasized by the negative percentage rainfall departure from normal (see fig 1), that indicates soil moisture deficit which in turn threatens preparations for summer cropping that is already at hand. The north-eastern parts are the worst hit by rainfall deficiency.

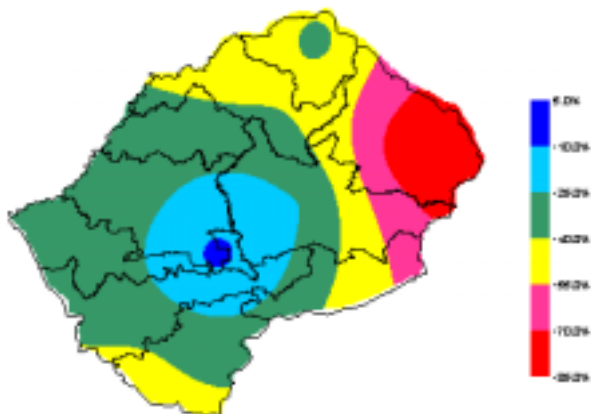


Fig.1: Cumulative rainfall departure from normal since 1<sup>st</sup> Sept to 1st dekad Oct 03

**TEMPERATURE**  
1<sup>st</sup> – 10<sup>th</sup> October 2003

Considerably high temperatures were registered throughout the country. The highest maximum temperatures registered ranged from 21 – 32°C which are remarkably high temperatures at this time of the season with high positive temperature deviations (see table 1). These temperatures also contributed to the rapid loss of soil moisture through evaporation and evapo-transpiration.

**CROP STAGE AND CONDITION**  
1<sup>st</sup> – 10<sup>th</sup> October 2003

Summer cropping in most parts of the lowland areas has not commenced as a result of the prevailing drought. Nevertheless, planting in the highland areas has started. Crops (maize, sorghum ) are at emergence stage. Winter wheat is at vegetative to milking stage with poor condition as a result of drought conditions.

**VEGETATION CONDITION**  
1<sup>st</sup> – 10<sup>th</sup> October 2003

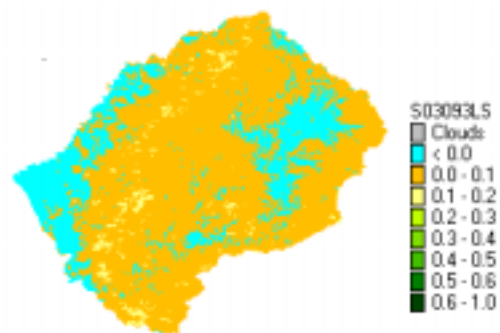


Fig.2: Vegetation Index for 3<sup>rd</sup> dekad Sept 2003

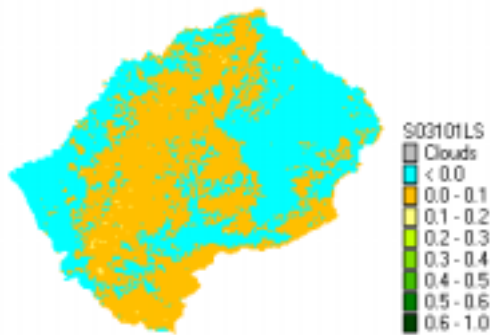


Fig.3: Vegetation Index for 1<sup>st</sup> dek Oct. 2003

Figures 1 & 2 show vegetation index which in other words, is vegetation situation around the country. *The lower the index the poorer the vegetation cover and the higher the index the better the vegetation cover.* Fig 2 shows a little greenness with small portion of bare soil. However, fig 3 depicts reduced vegetation from that of the previous dekad. This reversed situation could have been caused by burning of the rangeland, which is a common practice especially in the highland areas. Otherwise, the dekad in discussion should have gone for further

improvement due the little rains received from the last two months.

### DEKADAL OUTLOOK

11<sup>th</sup> – 20<sup>th</sup> October 2003

Rainfall situation is expected to improve slightly as compared to the previous dekad. Light thundershowers are expected over a few places during this period. Temperatures will remain warm.

### SEASONAL OUTLOOK

(October – December 2003)

The country is currently experiencing drought condition, however, the situation is expected to improve towards mid November onwards to December whereby normal rainfall is anticipated.

Table 1

Rainfall and Temperature Summaries												
		Rainfall (mm)					TEMPERATURE (°C)					
		Total From Sept 03 to 1st Dek Oct 03										
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	0.0	16.3	0	22.1	45.7	-52	9.2(3)	30.6(5)	19.8	15.0	4.8
Mafeteng	1610	0.0	11.2	0	26.9	42.1	-36	6.4(2,9)	30.0(5)	18.2	15.2	3.0
Maseru Airport	1530	1.3	19.4	1	30.1	45.8	-34	8.8(9)	31.8(4)	20.6	15.0	5.6
Mohale's hoek	1600	0.0	15.0	0	28.5	44.8	-36	7.0(7)	32.0(5)	20.3	15.7	4.6
Mokhotlong	2200	0.6	13.5	1	6.2	38.4	-85	6.3(1)	27.0(3)	17.1	12.6	4.5
Ox-Bow	2600	6.5	31.8	2	54.8	85.7	-36	4.8(1)	21.5(3)	14.1	8.3	5.8
Qacha's Nek	1970	0.4	14.4	1	30.3	53.3	-43	6.8(9)	28.9(5)	18.2	14.1	4.1
Quthing	1740	1.5	14.8	1	29.6	53.5	-45	9.4(8)	30.6(5)	20.2	15.0	5.2
Semonkong	2458	1.0	13.7	1	47.7	50.8	-6	0.5(7,8)	25.9(3)	13.9	9.7	4.2
Moshoeshoe I	1628	0.2	19.3	1	29.5	47	-37	9.0(2)	32.0(6)	20.5	N/A	N/A
Thaba-Tseka	2160	0.0	14.6	0	30.4	41.7	-27	5.5(7)	26.1(4)	17.2	12.9	4.3
Leribe	1740	0.0	14.9	0	25.5	46	-45	6.6(9)	31.0(5)	20.0	15.7	4.3

Fig.4

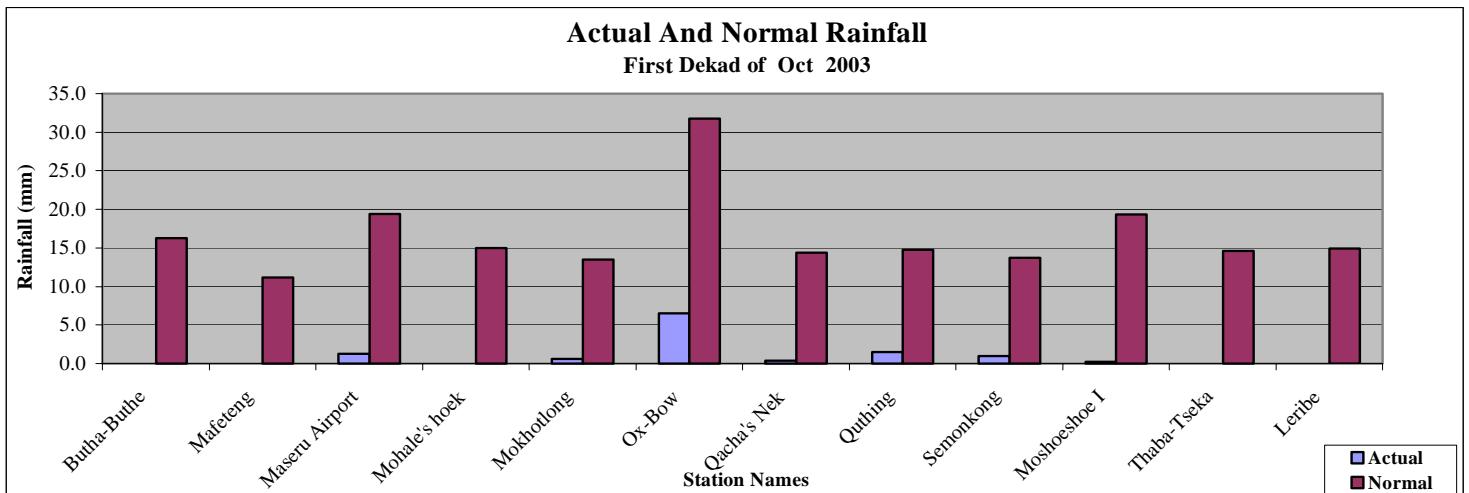
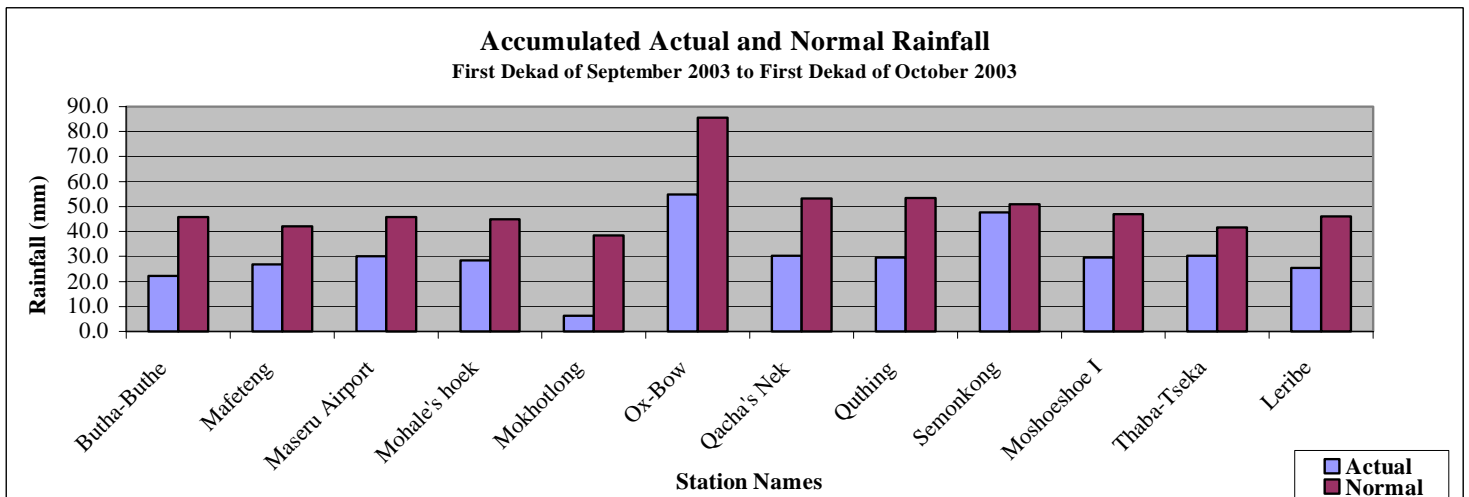


Fig.5



## **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.