

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

01st – 10th October 2004



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

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Highlights

- ❑ No rainfall registered during this period.
- ❑ Planting in the Highlands is in progress.
- ❑ Low to very low vegetation cover dominated.
- ❑ Rainfall expected to improve in the next ten days.
- ❑ Slightly below normal rainfall expected during the period October to December 2004.

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WEATHER SUMMARY

The first dekad of October was dominated by a high-pressure cell, which resulted in subsidence of dry and warm air over the country. However, at end of this period there were some cold frontal systems associated with southwesterly winds. As a result there were some drop in temperatures in the last three days.

RAINFALL SITUATION

Dry weather condition prevailed during this period. Little rainfall (1.1mm) was registered over the southeastern sector (Qacha's Nek). Otherwise the remainder of the country registered zero rainfall (see table 1 & fig.1).

Cumulative percentage rainfall departure from Normal

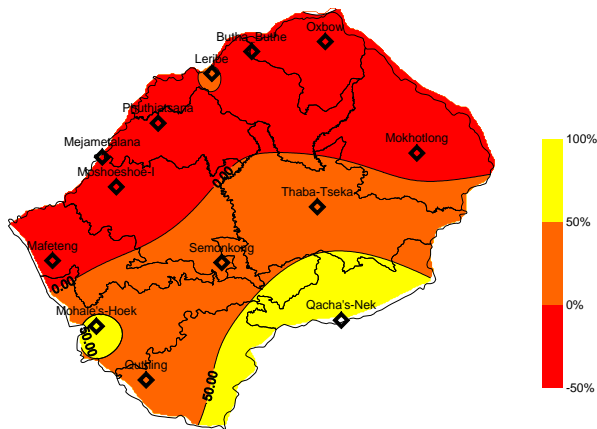


Fig.1: Cumulative rainfall departure from normal since 1st Sept to 10th Oct 04.

Cumulative percentage rainfall departure from normal plot in fig.1 shows a shortage of rainfall occurrence over the northern to northeastern and western parts of the country where percentage rainfall deficit falls within 50% to 0% (red shaded area). The remainder of the country received relatively good rainfall (brownish and yellowish shades). Although these regions seem to have received relatively good rains, the temporal rainfall distribution was poor as the total rain days averaged to 4 over a period of about 40 days, which indicates a long dry spell during this period.

TEMPERATURE

High temperatures were registered during this period. Positive temperature deviation from normal temperature ranged from 1°C to 3.2°C (see table 1 under temperature). However, a drop in temperature that reached below 0°C occurred on the 8th and 9th. Temperatures below 2°C during this time of the year can be hazardous to crops.

CROP STAGE AND CONDITION

Planting in the Highlands is in progress and it is reported that few crops are at an emerging stage. The moisture that accumulated from the snow and rains that fell in early spring facilitated planting in the Highlands. Winter wheat is still at vegetative stage in the Highlands and few fields have been planted. No major agricultural activities are taking place in the lowlands.

VEGETATION CONDITION

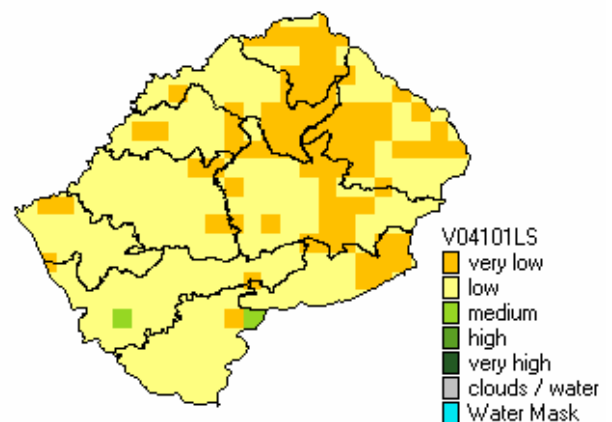


Fig.2: Normalized Difference Vegetation Index(NDVI) Image for 1st Dekad of October 2004.

The dekad under discussion was dominated by low to very low vegetation cover (see fig.2 above), which is an implication of poor pasture condition. However, there has been a little improvement in greenness as compared to the previous dekad (3rd dekad of September).

DEKADAL OUTLOOK**11th – 20th October 2004**

Rainfall situation is expected to improve slightly as compared to the first dekad. Light isolated thundershowers are expected during this period. Temperatures will remain warm.

SEASONAL OUTLOOK**(October – December 2004)**

Rainfall is expected to improve as compared to last year during October-December. However slightly below normal rainfall is still expected during this forecast period (October – December 2004). Normal rainfall is expected to improve during January – March 2005.

Temperatures are expected to be generally above normal during the whole summer growing season (October 2004 – March 2005).

Table 1

Rainfall and Temperature Summaries												
		Rainfall (mm)						TEMPERATURE (°C)				
		01 -10th Oct 2004			Total From Sept. 04 to 1st Dek Oct. 04					01 -10th Oct 2004		
STATION NAME	ALT. (M)	Actual R/Fall	Rain Days	Normal R/Fall	Cum.Act & Nor. Rainfall		%Dept. from Normal	Minimum Lowest(Day)	Maximum Highest (Day)	Dekadal Mean	Dekadal Normal	Deviation
					Actual	Normal						
Butha-Buthe	1770	0.0	0	16.3	25.7	44.8	-43	2.5(9)	29.6(5,6)	17.3	15	2.3
Leribe	1740	0.0	0	14.9	42.9	40	8	1.5(-)	30.5(6)	17.2	15.7	1.5
Mafeteng	1610	0.0	0	11.2	26.1	38.1	-32	1.2(9)	28.6(6)	18.7	16.4	2.3
Maseru Airport	1530	0.0	0	19.4	30.8	50.8	-39	3.4(8)	31.3(5)	18.2	15.0	3.2
Mohale's hoek	1600	0.0	0	15.0	72.7	44.4	64	2.0(8)	29.0(4,6)	16.7	15.7	1
Mokhotlong	2200	0.0	0	13.5	34.4	41.3	-17	-0.5(9)	28.3(7)	15.3	12.6	2.7
Ox-Bow	2600	0.0	0	31.8	46.8	88.3	-47	-5.5(9)	21.6(6)	9.9	8.3	1.6
Phuthiatsana	1750	0.0	0	18.2	33.6	46.0	-30	3.0(9)	30.6(5)	17.7	15.8	1.9
Qacha's Nek	1970	1.1	1	14.4	86.1	45.1	91	22(8)	29.0(5)	16.3	14.1	2.2
Quthing	1740	0.0	0	14.8	66.7	51.4	30	3.8(9)	27.2(5,6)	17.3	15.0	2.3
Semonkong	2458	0.0	0	13.7	58.1	45.7	27	-4.5(10)	24.0(5)	11.4	9.7	1.7
Moshoeshoe I	1628	0.0	0	19.3	42.4	71.3	-41	2.5(9,10)	30.5(4,5)	17.3	N/A	N/A
Thaba-Tseka	2160	0.0	0	14.6	62.2	48.5	28	0.0(9)	25.3(6)	14.2	12.9	1.3

Fig.2

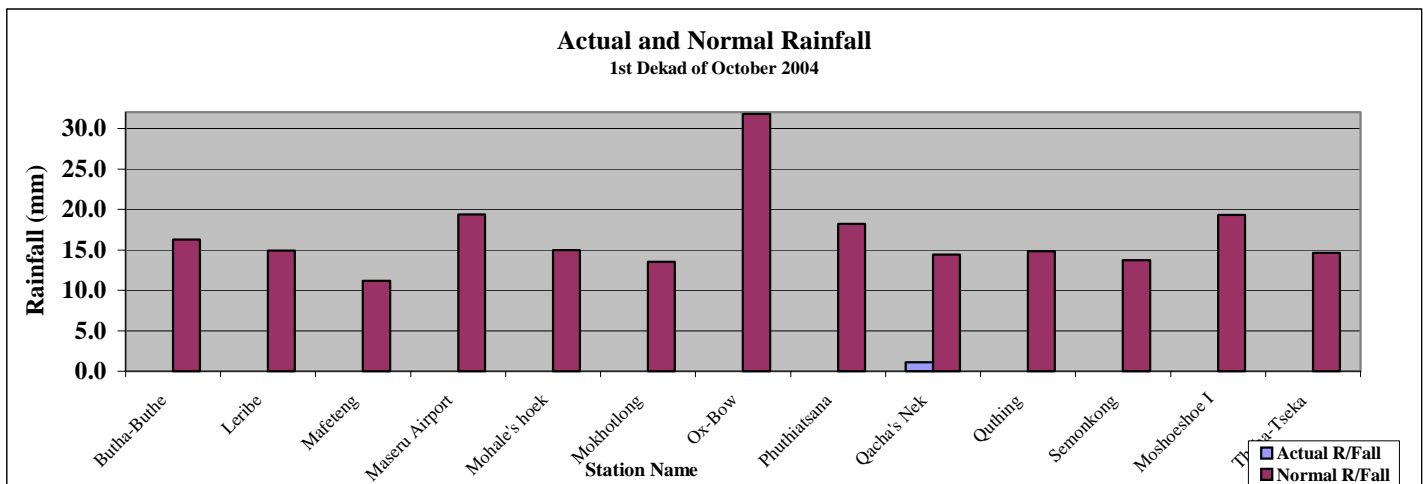
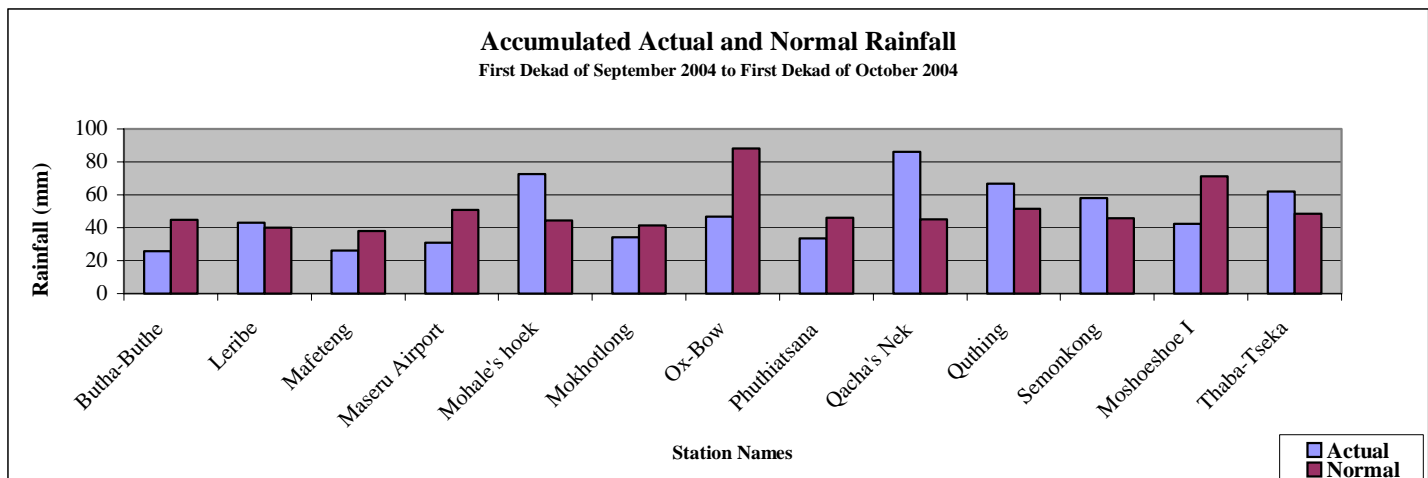


Fig.3



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.

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.