

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

01st – 10th 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 registered during this period.
- ❑ Planting in the Highlands is in progress.
- ❑ Low vegetation cover dominated.
- ❑ Rainfall expected to improve in the next ten days.
- ❑ Slightly below normal rainfall expected during the period October to December 2005.

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WEATHER SUMMARY

The first dekad of October had good rainfall since in most parts of the country, rains above normal were recieved. The rain days varied from three to five. However Mohale’s Hoek had a relatively poor rainfall registered in only one day.

RAINFALL SITUATION

The northern parts of the country received above normal dekadal rainfalls of 71.1mm in Ox-Bow, 30.8mm in Butha-Buthe, Phutiatsana received 42mm and in Leribe 35.5mm recorded. Even Mokhotlong received 60.9mm which is the good rainfall to summer crops. Mafeteng is the only district in which near dekadal normal rainfalls were registered. The rest of the country had below normal rainfall. The lowest dekadal rainfall amount was recorded in Mohale’s Hoek with 6.4mm. This low amount is not sufficient to sustain crops at any stage of their growth.

Cumulative percentage rainfall departure from Normal

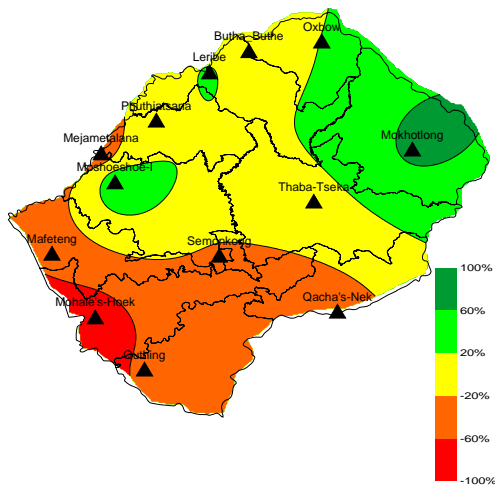


Fig.1: Cumulative rainfall departure from normal since 1st Sept to 10th Oct 05.

Cumulative percentage rainfall departure from normal plot in fig.1 shows a shortage of rainfall occurrence over the southern parts of the country where it falls within 100% to 20%(Brownish and red shaded areas). The remainder of the country received relatively good

rainfall (yellowish and geensh shades). Although these regions seem to have received relatively good rains, the temporal rainfall distribution was poor in some northern and the eastern parts of the country which indicates some dry spells some time coming.

TEMPERATURE

High temperatures were registered during this period of which Leribe had 30.5 °C. On average the temparetures were still above the normal. These high temperatures contribute to the increase of the rate evapotranspiration; as a result soil moisture loss is enhanced. Positive temperature deviation from normal temperature ranged from 0.1°C to 1.9°C (see table 1 under temperature). However, a drop in temperature that reached below 0°C occurred on the 3th at Ox-Bow. Temperatures above 2°C during this time of the year can be can be very good 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 little showers of 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. As for the wheat in the Lowlands, very little harvest is expected since only a few number of fields was grown wheat. No major agricultural activities are taking place in the lowlands for summer crops.

VEGETATION CONDITION

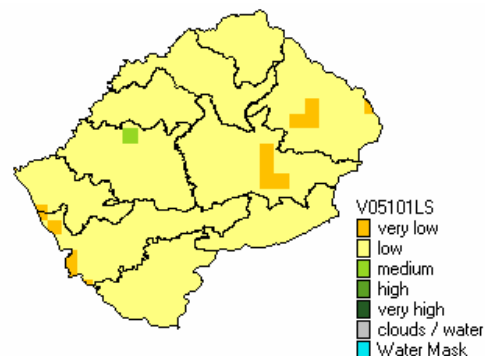


Fig.2: Normalized Difference Vegetation Index(NDVI) Image for 1st Dekad of October 2005.

The dekad under discussion was dominated by 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 month; that is September.

DEKADAL OUTLOOK

11th – 20th October 2005

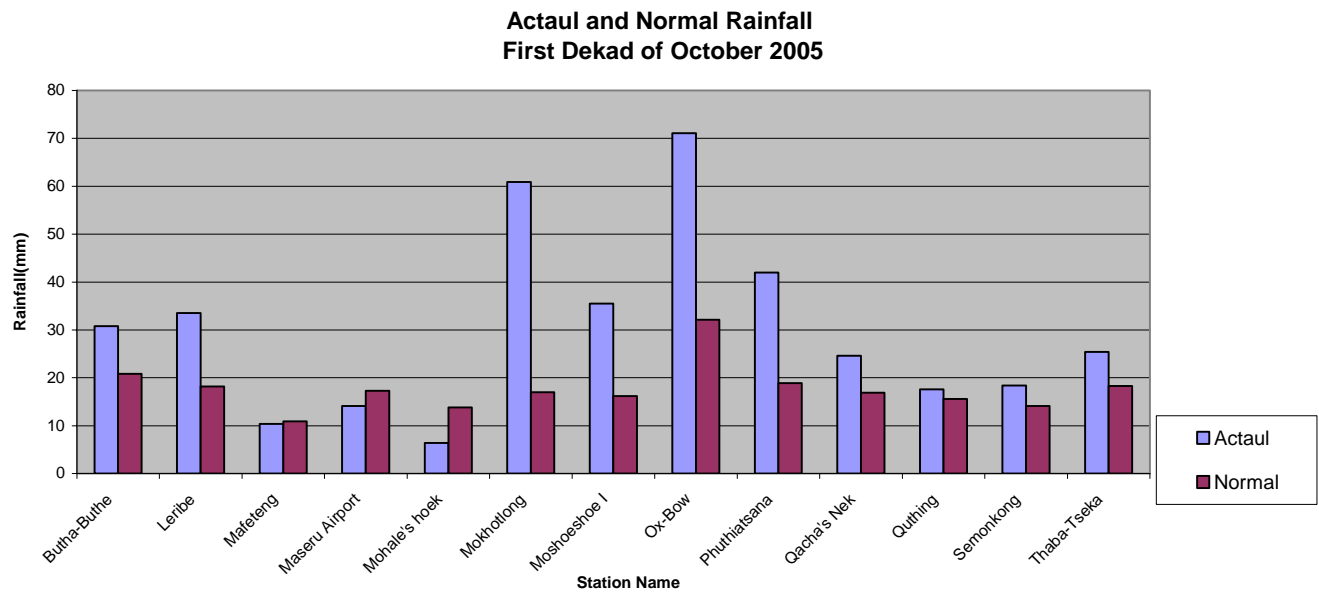
The coming dekad is expected to remain mainly partly cloudy and cool to warm with isolated to scattered showers and thundershower, otherwise it will be fine to partly cloudy and warm with showery days being cooler. However, most of the showery days are expected to be windy.

Table 1

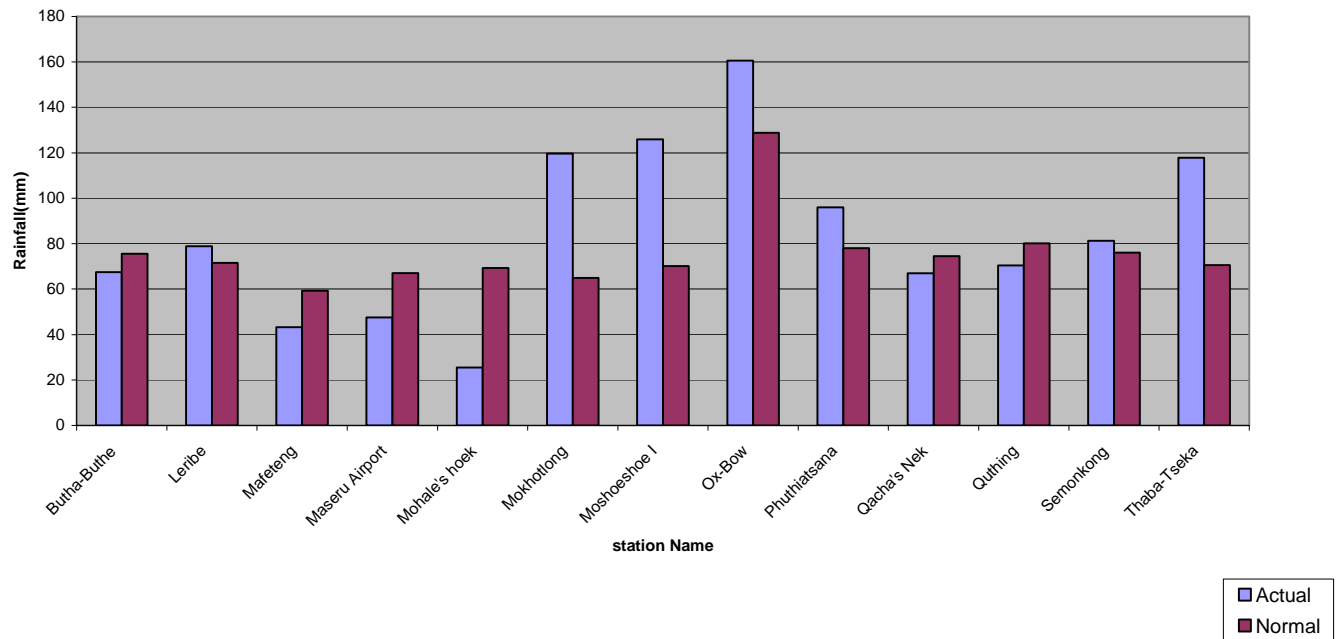
		Rainfall and Temperature Summaries										
		Rainfall (mm)				Total From Sept. 05 to 1st Dek Oct. 05		TEMPERATURE (°C)				
		01 -10th Oct 2005					01 -10th Oct 2005					
STATION	ALT.	Actual	Rain	Normal	Cum.Act & Nor. Rainfall		%Dept. from	Minimum	Maximum	Dekadal	Dekadal	
NAME	(M)	R/Fall	Days	R/Fall	Actual	Normal	Normal	Lowest(Day)	Highest (Day)	Mean	Normal	Dev. ¹
Butha-Buthe	1770	30.8	5	20.8	45.7	51.4	-11	3.8(1)	28.4(10)	15.7	15	0.7
Leribe	1740	33.5	4	18.2	58.9	47.5	24	3.5(3)	30.5(4)	15.9	15.7	0.2
Mafeteng	1610	10.4	2	10.9	19	36.2	-48	2.4(9)	25.6(10)	14.4	16.4	-2.0
Maseru Airport	1530	14.1	3	17.3	20.2	44.7	-55	4.9(3)	28.8(10)	16.4	15.0	1.4
Mohale's hoek	1600	6.4	1	13.8	7.4	44.3	-83	4.5(9)	28.5(10)	16.0	15.7	0.3
Mokhotlong	2200	60.9	4	17.0	75.8	44.9	69	2.0(3)	26.4(4)	13.9	12.6	1.3
Moshoeshoe I	1628	35.5	3	16.2	67.7	44.0	54	5.0(3)	27.5(4, 10)	16.1	N/A	N/A
Ox-Bow	2600	71.1	5	32.1	104.8	86.4	21	-2.8(3)	19.1(3, 10)	10.2	8.3	1.9
Phuthiatsana	1750	42.0	4	18.9	54.0	50.0	8	5.0(3)	29.0(4)	16.8	15.8	0.9
Qacha's Nek	1970	24.6	4	16.9	30.4	51.8	-41	0.6(6)	26.8(4)	14.2	14.1	0.1
Quthing	1740	17.6	4	15.6	26.1	56.0	-53	5.5(6)	26.7(3)	15.5	15.0	0.5
Semonkong	2458	18.4	4	14.1	38.7	54.0	-28	1.0(1)	23.2(3)	12.7	9.7	3.0
Thaba-Tseka	2160	25.4	4	18.3	50.3	48.5	4	1.9(6)	24.8(4)	14.0	12.9	1.1

Fig.2

¹ 1. Deviation



Cumulative Actual and Normal Rainfall



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.