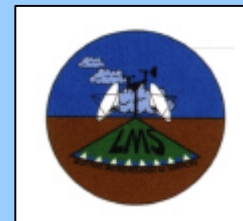


LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

11th – 20th November 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 south eastern parts.
- ❑ Cool to mild weather conditions prevailed during the dekad.
- ❑ The Lowlands have not received sufficient cumulative rains.
- ❑ Vegetation cover low over the southern Lowlands.
- ❑ The next ten days expected to be dry and hot.

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WEATHER SUMMARY

The dekad under review was relatively wet as compared to the previous one(1-10th Nov). This was due to the persistence of the trough that extended its axis from the Congo Basin coupled with influx of moist air from the Indian High Pressure Cell. As a result relatively reasonable amounts of rainfall were registered especially in the beginning of the dekad. Mild temperatures were registered except towards the end of the dekad where temperatures started shooting up.

RAINFALL SITUATION

The south eastern and the central parts of the country received above normal to normal dekadal rainfall of 39.8mm at Qacha’s Nek and 37.1mm at Semonkong (Table 1). Near normal dekadal rainfall values were registered at Butha-Buthe. Otherwise the remainder of the country had below normal rainfall. The lowest dekadal rainfall amounts were recorded at Mokhotlong which is 36.8mm (see table 1). These low rainfall amounts are not sufficient to sustain crops at any stage of their growth hence some crops were stressed due to shortage of soil moisture.

Cumulative percentage rainfall departure from Normal

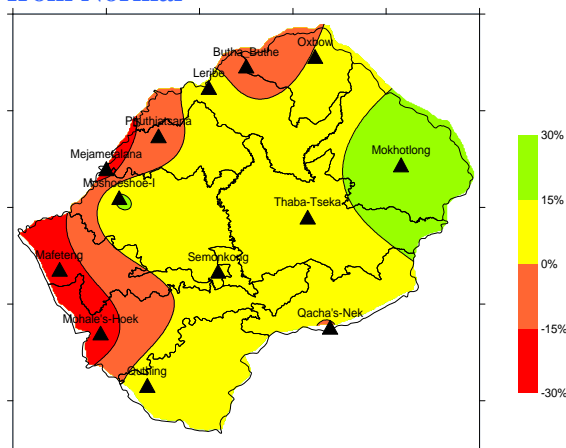


Fig.1: Cumulative rainfall departure from normal since 1st Sept to 20th November 2005.

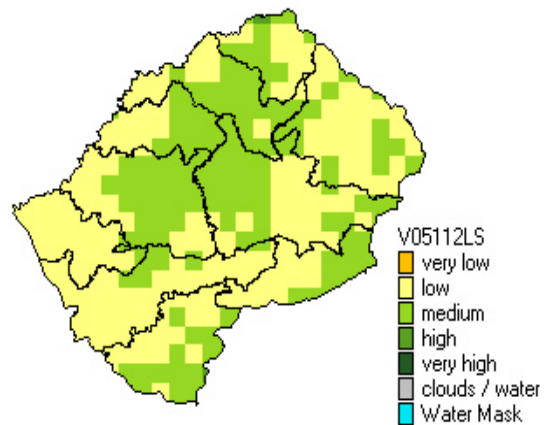
On the whole, cumulative rainfall (1st September to 20th November 2005) is above normal (Table 1 & Fig 1). However, Mafeteng, Butha-Buthe, Maseru and Mohale’s Hoek are the

only stations which recorded below normal cumulative rainfall. Mafeteng is the only district in the south which has the highest deficit of cumulative rainfall which is 69mm.

TEMPERATURE

Most areas of the country experienced above normal dekadal temperatures while the rest of the country had below normal temperatures. Negative temperature deviations were recorded at Mafeteng (-0.9°C) and Moshoeshoe I (-0.2°C). However, positive deviations were also registered in the remaining parts of the country. The highest maximum temperature was registered at Moshoeshoe I on the 19th of November whereas the lowest temperature registered at Ox-Bow on the 20th of November. The temperatures registered throughout the country are above 25^oC, so normally high temperatures are not conducive to crops because they increase the rate of evapotranspiration. As a result wilting of crops is very high.

VEGETATION



The vegetation index (NOAA NDVI satellite image) for the 2nd dekad of November 2005 depicts that the degree of greenness of the vegetation is low over the lowlands and some parts of the Senqu river valley. It is at its lowest in Mafeteng and Mohale’s Hoek districts and some areas in the Thaba-Tseka district. Some parts of Qacha’s Nek show a very high degree of

greenness. The low greenness may imply that the land is bare and that the crops are still young.

CROP STAGE AND CONDITION

Crops (maize and sorghum) in the western and northern lowlands are at emergence stage to early vegetative stage. At some places in the low-lying areas planting is in progress. Due to the high temperatures and the low rainfall crops are at risk of rapid moisture loss due to evapotranspiration.

DEKADAL OUTLOOK

21st – 30th November 2005

The period is expected to observe moist weather conditions as the trough is still expected to dominate the region. As a result, isolated to widespread rains are expected. Warm to hot

weather conditions are expected during this forecast period.

SEASONAL OUTLOOK-NOVEMBER TO DECEMBER 2005

Rainfall situation during this period (November-December) is anticipated to be slightly above average. There, this season (November-December 2005) is expected to improve as compared to the same period last year. Water resources and agriculture activities are not expected to be stressed and hampered as much as in the previous two years.

Temperatures are slightly above average and they are anticipated to remain so throughout this forecast period.

Table 1

Rainfall and Temperature												
Summaries		Rainfall (mm)						Temperature (°C)				
		11 - 20 Nov 2005			Total From Sept 05 to 2nd Dek Nov 05			11 - 20 Nov 2005				
STATION	ALT.	Actual	Rain	Normal			%Dept. from	Minimum	Maximum	Dekadal	Dekadal	
NAME	(M)	R/Fall	Days	R/Fall	Actual	Normal	Normal	Lowest(Day)	Highest (Day)	Mean	Normal	Deviation
Butha-Buthe	1770	45.0	4	45.1	172.1	193.4	-11	8.0 (14)	27.6 (20)	17.7	17.6	0.1
Leribe	1740	52.1	5	34.5	176.0	160.5	10	7.6 (14)	28.8 (19)	18.1	17.9	0.2
Mafeteng	1610	41.1	2	30.8	110.1	141.4	-22	5.1 (13)	28.4 (20)	17.2	18.1	-0.9
Maseru Airport	1530	52.3	4	28	108.3	148.4	-27	8.4 (14)	29.4 (19)	19.1	18.8	0.3
Mohale's hoek	1600	47.5	4	26.3	109.0	145.8	-25	7.5 (14)	28.5 (19)	18.8	18.8	0.0
Mokhotlong	2200	36.8	4	25.7	181.7	144.5	26	5.8 (15)	25.4 (20)	15.7	14.7	1.0
Moshoeshoe I	1628	39.9	4	31.7	198.4	166.7	19	7.9 (14)	29.0 (19)	18.7	18.9	-0.2
Ox-Bow	2600	61.6	5	56.1	297.5	295.1	1	0.4 (20)	19.2 (20)	11.2	10.1	1.1
Phuthiatsana	1750	40.1	4	30.3	156.8	172.1	-9	8.2 (14)	29.3 (20)	19.0	18.4	0.6
Qacha's Nek	1970	39.8	6	26.1	160.5	161.9	-1	6.4 (17)	27.8 (20)	16.1	15.9	0.2
Quthing	1740	85.4	4	30.1	194.2	173.5	12	8.8 (14)	28.6 (20)	18.4	18.1	0.3
Semonkong	2458	37.1	4	20.8	154.6	153.3	1	3.1 (14)	23.7 (19)	13.9	13.4	0.5
ThabaTseka	2160			22.2	145.2	144.0					14.9	

Fig.1

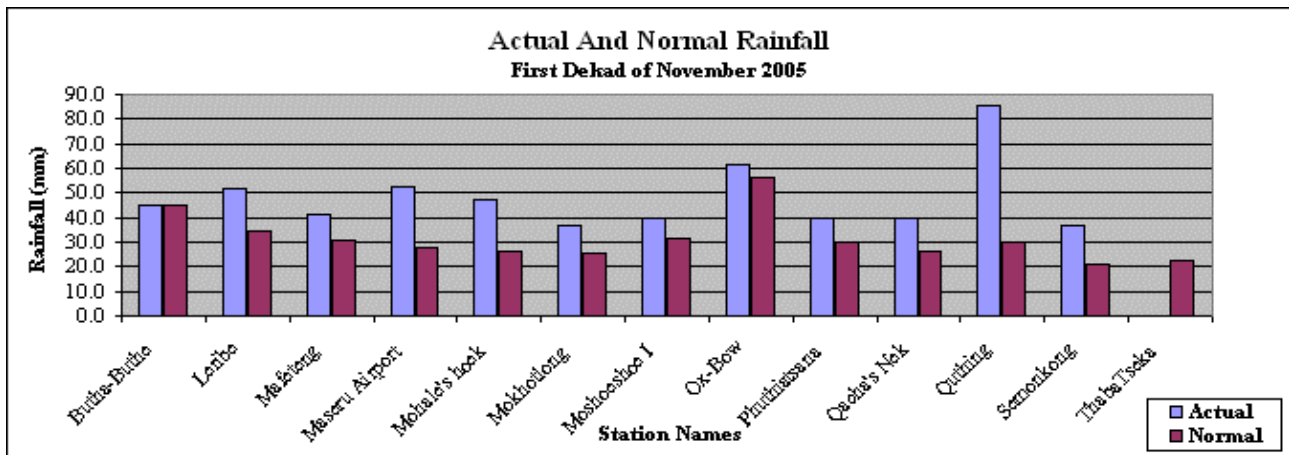
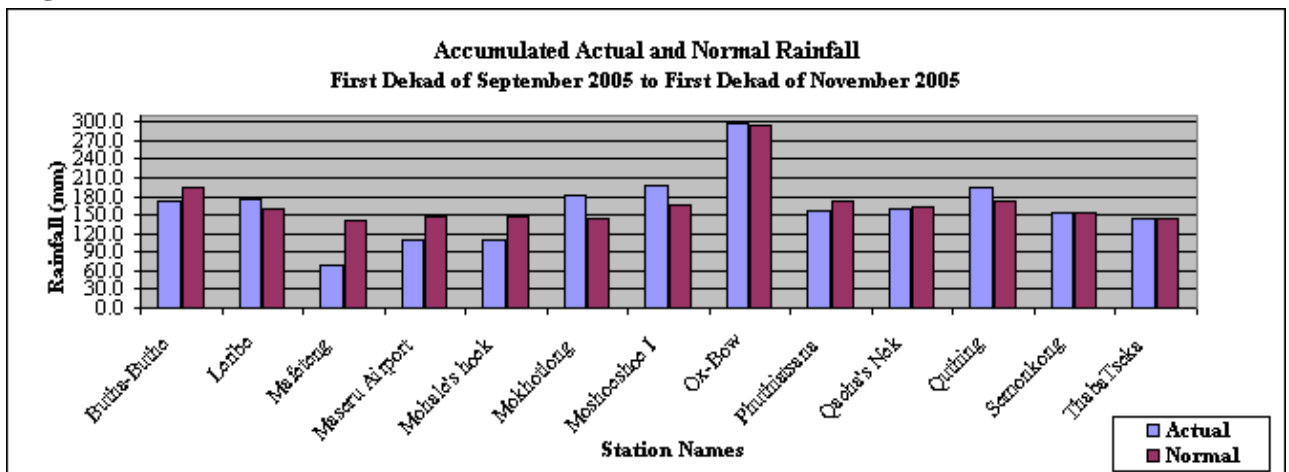


Fig.2



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.