

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

21st –31st 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

- ❑ Improved rainfall situation during this period.
- ❑ Planting in the Lowlands is in progress.
- ❑ Medium to low vegetation cover dominated.
- ❑ Rainfall expected to improve in the next ten days.

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
<http://www.lesmet.org.ls>

WEATHER SUMMARY

The third dekad of October 2005 was mainly dominated by a shallow dry trough that oscillated over the region. This brought some partly cloudy to cloudy conditions with no precipitation. However, on the 28th and 29th the trough deepened further which then brought some wet conditions and therefore reasonable amounts of rainfall were registered throughout the country. Temperatures were mild to warm except on the 22nd and 26th where temperatures dropped significantly such that minimum temperatures were below 0°C in some highlands.

RAINFALL SITUATION

Slightly below normal rainfall was registered throughout the country except in the north (Leribe) where 34.2mm was recorded. The rains experienced are relatively good for the crops, but due to high temperatures occurring these days, the soil keeps moisture for a very short period of time as a result crops may suffer.

Cumulative percentage rainfall departure from Normal

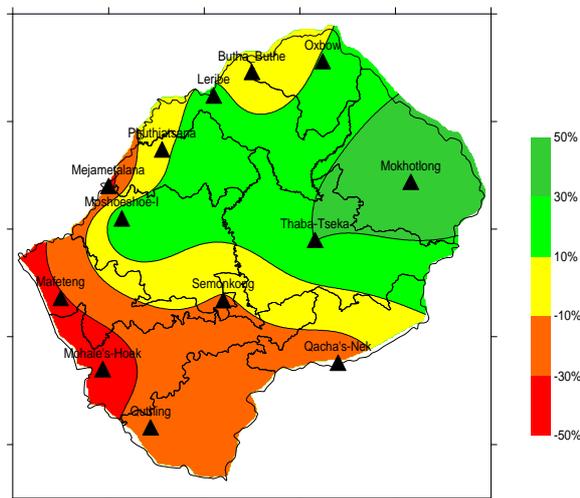


Fig.1: Cumulative rainfall departure from normal since 1st Sept to 3rd dekad.Oct 05.

Cumulative percentage rainfall departure from normal plot in fig.1 shows a shortage of rainfall occurrence over the southern and western parts of the country where rainfall deficit falls within – 50% to 10% (red and brownish shaded areas).

The remainder of the country received fairly good rainfall (greenish and yellowish shades). Although these regions seem to have received good rains, the temporal rainfall distribution was not satisfactory 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. Positive temperature deviation from normal ranged between 0°C and 1.5°C (see table 1 under temperature). However, a drop in temperature below 0°C occurred on the 24th and 26th. Temperatures above 25°C during this time of the year can be hazardous to crops as they can cause crops to wilt at very high rate.

CROP STAGE AND CONDITION

Planting in the Lowlands is in progress and it is reported that few crops are at an emerging stage and others are a few centimeters above soil. The moisture that accumulated from the rains that fell in early spring facilitated the planting in the Highlands. Winter wheat is now approaching the maturity stage in Lowlands; only few fields are planted. Even though the rain experienced was not sufficient, farmers are in full force ploughing the fields for summer crops, especially in the northern parts of the country.

VEGETATION CONDITION

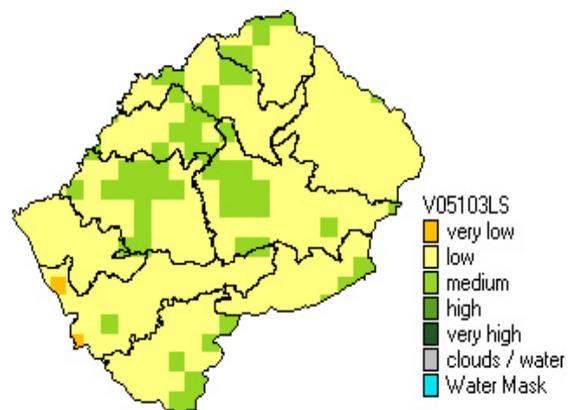


Fig.2: Normalized Difference Vegetation Index(NDVI) Image for 3rdDekad of October 2005.

The dekad under discussion was dominated by medium to low vegetation cover (see fig.2 above), which is an implication of improved pasture or rangelands condition. However, there has been a little improvement in greenness as compared to the previous dekad (2nd dekad of October).

DEKADAL OUTLOOK

21st – 21st October 2005

Generally cool to warm weather conditions are expected during this period with dry to moderate conditions in the beginning of the dekad. However, relatively wet weather conditions are anticipated during the middle of the dekad as rain and isolated to scattered thundershowers are highly possible. Wind is expected to be light too.

Table 1

Summaries		Rainfall and Temperature										
		Rainfall (mm)						TEMPERATURE (°C)				
		21-31st Oct 2005			Total From 1st Sept. 05 to 31st Oct. 05			21-31st Oct 2005				
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	De
Butha-Buthe	1770	30.4	3	34.2	97.9	109.8	-11	6.4(21)	27.8(24)	17.3	16.6	0.
Leribe	1740	35.5	4	25.6	114.3	97.1	18	5.5(21)	29.9(24)	17	17	0.
Mafeteng	1610	16.4	4	28.1	60.6	87.4	-31	2.5(26)	28(24)	16.2	16.5	-0.
Maseru Airport	1530	8.5	3	27.0	55.0	94	-41	6.5(21)	30(25)	18.3	17.8	0.
Mohale's hoek	1600	23	4	25.7	48.5	95	-49	4.5(21)	29.5(23,24)	17.6	17.2	0.
Mokhotlong	2200	11.4	3	26.4	131.0	91.3	43	4(26)	28.6(24)	15.2	14.1	1.
Moshoeshoe I	1628	13.9	4	35.7	139.8	105.8	32	6(26)	28.5(24)	17.9	17.5	0.
Ox-Bow	2600	44.3	4	54.8	204.9	183.6	12	-4(21)	20(24)	9.8	9.3	0.
Phuthiatsana	1750	19.5	4	30.4	115.5	108.4	7	7.4(26)	29.1(24)	17.9	17.5	0.
Qacha's Nek	1970	13.9	2	31.4	80.8	105.9	-24	4.9(26)	28(23)	16.4	14.9	1.
Quthing	1740	24	2	30.7	94.4	110.8	-15	4.7(21)	28.8(23)	17.1	17	0.
Semonkong	2458	13.1	5	31.8	94.4	107.9	-13	-1.9(26)	23.5(23)	12.5	12	0.
Thaba-Tseka	2160	12.8	4	29.7	130.6	100.3	30	4.2(26)	24.6(24)	14.3	13.7	0.

Fig. 2

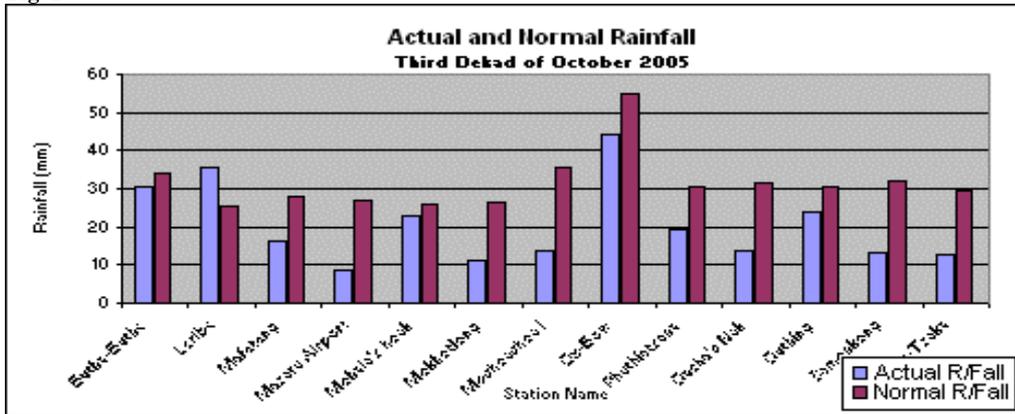


Fig.3

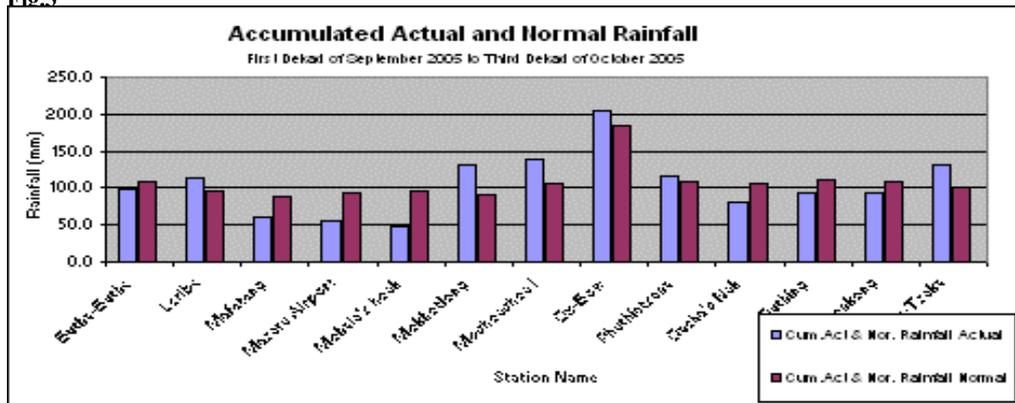
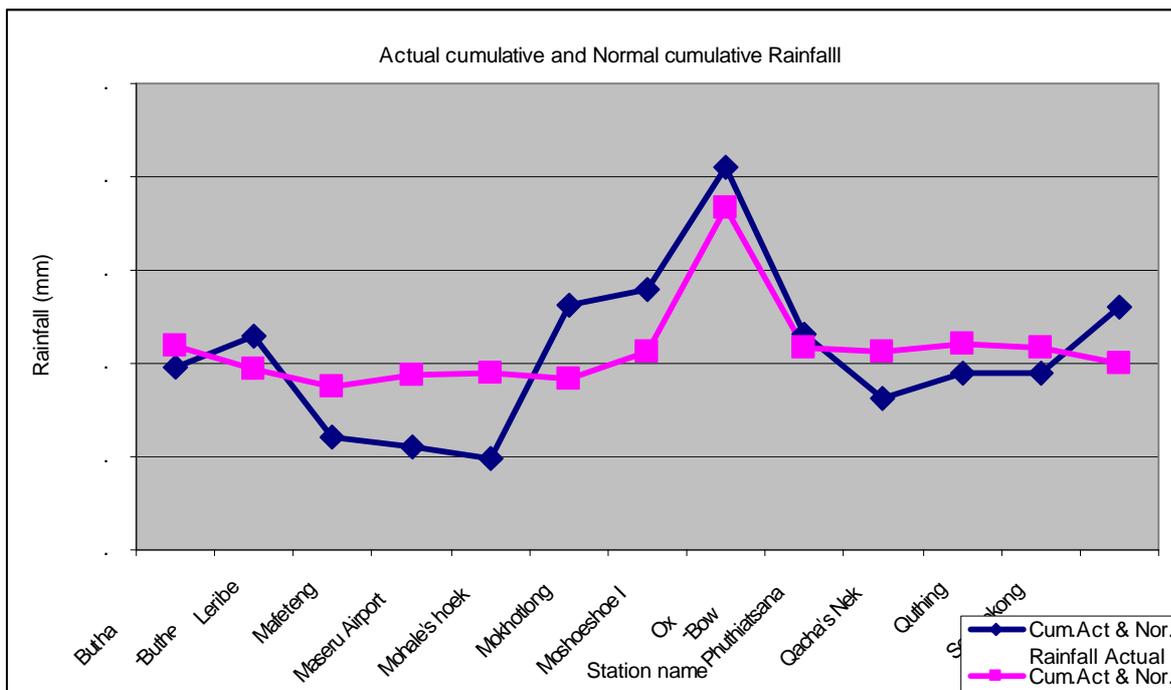
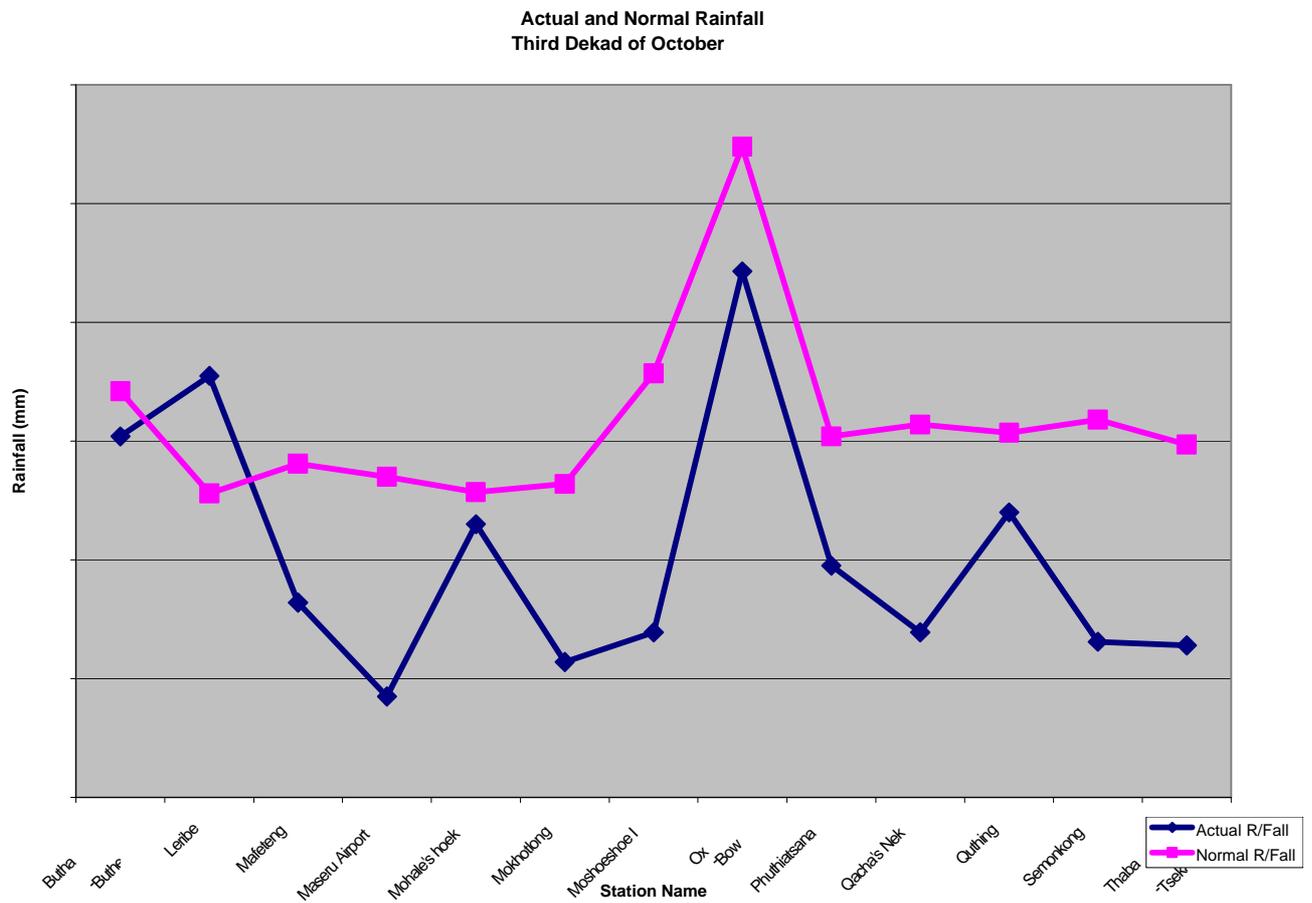


Fig.4



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.