

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

21th – 30th 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.

The Director
Lesotho Meteorological Services
Agrometeorological Section
P.O. Box 14515
Maseru 100, Lesotho

TEL: (+266) 22324374
FAX: (+266) 22325057/22350325
E-mail: agrometeorology@lesmet.org.ls
<http://www.lesmet.org.ls>

WEATHER SUMMARY

A fairly shallow trough has been dominated over the area with the atlantic Ocea Antcyclone occasionally extending a weak ridge over the southern interior. Maximum temperatures were warm with little rainfall. Scattered rain was reported on the 22nd. Highest temperature of 30.0^oC was recorded at Quthing on the 24th. Leribe reported highest rainfall of 22.6mm on the 27th. Lowest minimum temperature of 3.8^oC was observed at Oxbow on the 23rd.

RAINFALL SITUATION

The whole country received good dekadal rainfalls except Mafeteng and Phuthiatsana whereby slightly below normal dekadal rainfalls were registered. The lowest dekadal rainfall was registered at Mafeteng which was 26.2mm. These low rainfall amounts are not sufficient to sustain crops at any stage of their growth especially when the temperatures are higher than normal and expected to remain so throughout the forecast period.

Cumulative percentage rainfall departure from Normal

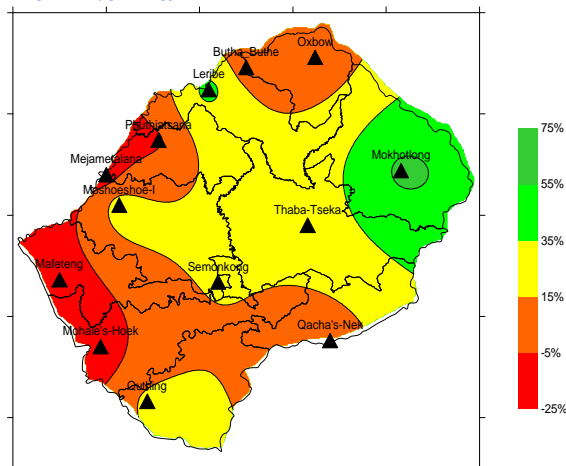


Fig.1: Cumulative rainfall departure from normal since 1st Sept to 20th November 2005.

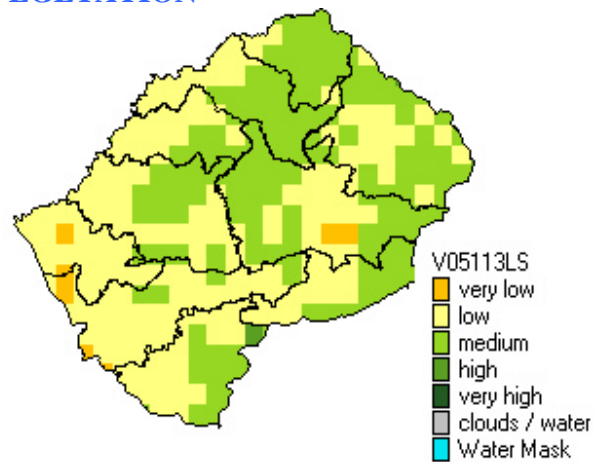
On the whole, cumulative rainfall (1st September to 30th November 2005) is above normal (Table 1 & Fig 1). However, Mafeteng, Phuthiatsana, Moshoshoel I and Mohale’s Hoek are the only stations which recorded below normal cumulative rainfall. Mafeteng and

Mohale’s Hoek are the only districts in the south which have the high deficit of cummulative rainfall which is 19mm and 21mm repectively.

TEMPERATURE

Most areas of the country experienced above normal dekadal temperatures while the rest of the country had below normal temperatures. The positive deviations registered through the entire country simply indicate that the crops may be stressed in the near future due to high temperatures. The highest maximum temperature was registered at Mohale’s Hoek on the 24th of November whereas the lowest temperature registered at Ox-Bow on the 23rd 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 3rd 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. However, in some southern and central parts of the country, the farmers have started weeding. Due to the high temperatures and the low rainfall crops are at risk of rapid moisture loss due to evapotranspiration.

DEKADAL OUTLOOK

1st – 10th December 2005

In this period the weather is expected to be partly cloudy, warm and hot with rain and thundershowers at some places.

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.

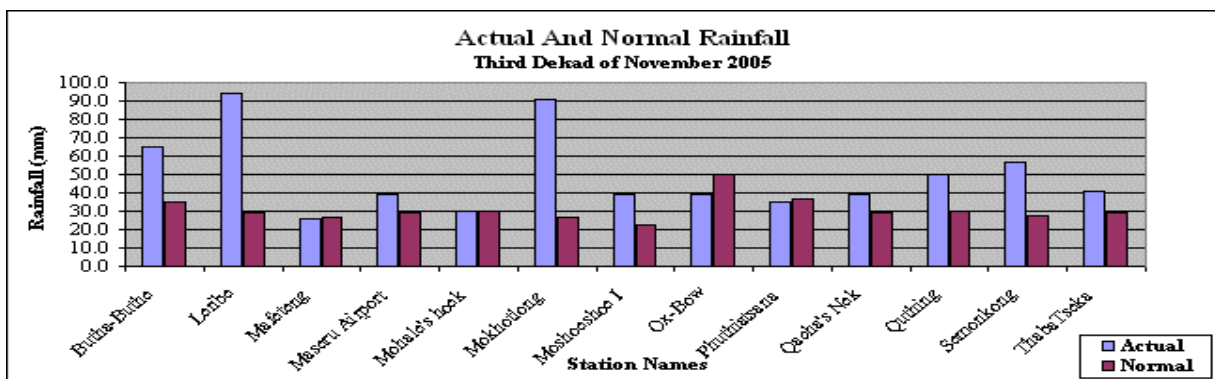


Fig.3

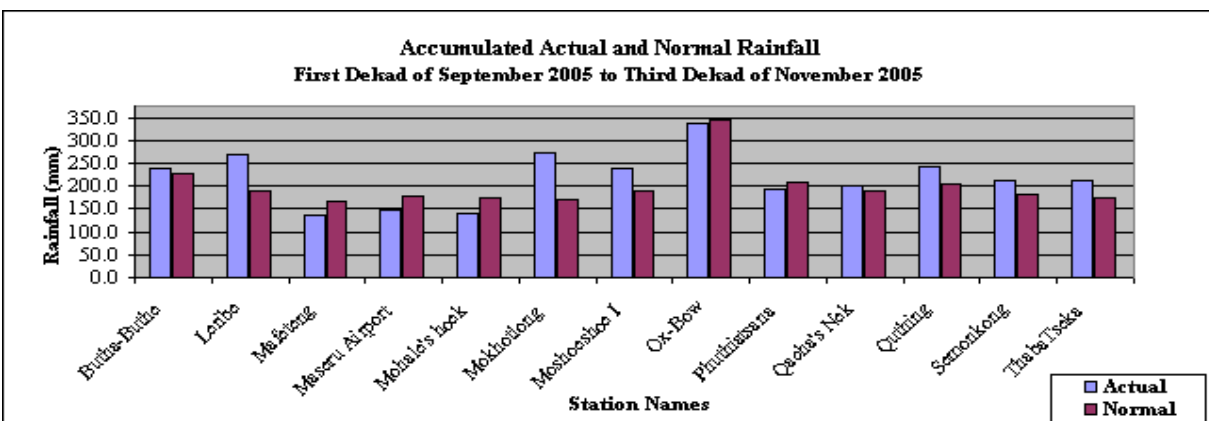


Fig 4.

Table 1

Rainfall and Temperature												
Summaries		Rainfall (mm)						Temperature (°C)				
		21 - 30 Nov 2005			Total From Sept 05 to 3rd Dek Nov 05			21 - 30 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	64.8	4	35.4	236.9	228.8	4	12.0(21,28)	28.8(23)	20.0	18.3	1.7
Leribe	1740	93.9	6	29.0	269.9	189.5	42	12.6(27)	29.8(24)	20.5	18.6	1.9
Mafeteng	1610	26.2	3	26.6	136.3	168.0	-19	11.5(23)	31.0(24)	20.2	18.2	2.0
Maseru Airport	1530	39.3	4	28.8	147.6	177.2	-17	13.6(27)	31.0(24)	22.2	19.4	2.8
Mohale's hoek	1600	29.8	3	29.7	138.8	175.5	-21	12.0(23)	32.0(24)	21.6	18.8	2.8
Mokhotlong	2200	91.0	8	26.5	272.7	171.0	59	8.2(27)	26.2(21)	17.1	15.1	2.0
Moshoeshoe I	1628	39.3	4	22.9	237.7	189.6	25	12.4(23, 27)	31.0(24)	20.8	18.8	2.0
Ox-Bow	2600	38.9	7	50.1	336.4	345.2	-3	3.8(23)	22.8(24)	12.6	10.6	2.0
Phuthiatsana	1750	35.1	3	36.8	191.9	208.9	-8	13.3(27)	30.8(24)	21.3	19.5	1.8
Qacha's Nek	1970	39.4	5	29.2	199.9	191.1	5	10.2(27)	29.9(27)	19.7	16.1	3.6
Quthing	1740	49.7	4	30.3	243.9	203.8	20	12.5(28)	30.7(24)	21.3	18.3	3.0
Semonkong	2458	56.6	5	27.9	211.2	181.2	17	6.5(23, 27)	25.0(21)	16.2		
ThabaTseka	2160	40.5	4	29.4	211.8	173.4	22	9.4(27)	25.3(25)	16.9	15.2	1.7

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.