

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

1st – 10th January 2007



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

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Highlights

Last Dekad Review

- ❑ Very dry weather conditions experienced.
- ❑ Temperatures were cool.
- ❑ Normal vegetation cover.

Next Dekad Preview

- ❑ Temperatures expected to be warm to hot
- ❑ Isolated to scattered rains expected.

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WEATHER SUMMARY

1st – 10th January 2007

A cold front passed south of the country on 31st December 2006 bringing cooler conditions on the 1st January 2007. Another cold front brushed over the southern parts of the country on 7th January 2007 and temperatures again dropped slightly on the 8th. For the rest of the period the surface trough and the semi-permanent low over Eastern Cape remained shallow and less active. Light isolated to scattered thundershowers occurred during that active period.

RAINFALL SITUATION

Unlike the third dekad of December 2006, which was wet, the first dekad of January 2007 was very dry. The country experienced below normal dekadal rainfall. The highest dekadal rainfall of 20.3mm was accumulated at Mokhotlong. The lowest dekadal rainfall of 1.9mm was recorded at Maseru Airport (see table 1).

The temporal distribution of the rainfall was poor as the rain days were very low. The rainy days were four or less.

Cumulative percentage rainfall departure from Normal

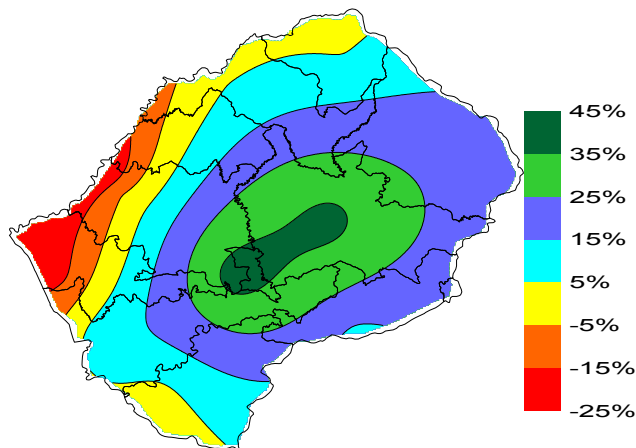


Fig.1: Cumulative rainfall departure from normal since 1st Sept to 10th January 2006.

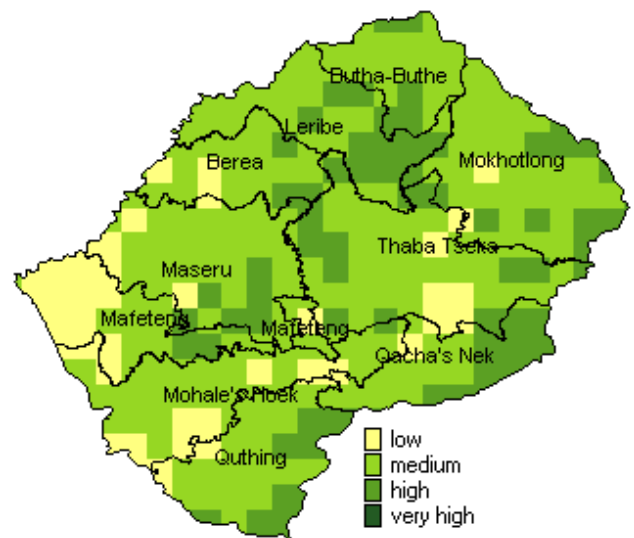
The cumulative rainfall since the first dekad of September 2006 to the first dekad of January 2007 is normal to above normal in most areas of the country. Maseru Airport and Mafeteng are the regions that have shown large deficit. The cumulative rainfall percentage departure from normal has decreased when compared with the values for the third dekad of December 2006.

Some parts of Maseru and Berea, and large parts of Mafeteng have consistently shown deficits of cumulative rainfall this season.

TEMPERATURE

The negative deviations of mean temperature from normal show that the dekad was cooler than normal. The highest daily maximum temperature of 32.2°C was recorded at Maseru Airport on the 6th while the lowest daily minimum temperature of 0.6°C was experienced at Semonkong on the 8th (see table 1). The highest daily temperatures of the dekad occurred in the western to the southern areas of the country. The high temperatures increased the rate of evapotranspiration and thus water loss by plants was high in the dekad under review.

VEGETATION



The NOAA NDVI satellite image shows that the vegetation cover was mainly at medium level. The western tip of Mafeteng and some parts of Senqu River Valley, as well as few areas of Maseru, Berea and Mohale's Hoek have low vegetation cover. However, vegetation cover is normal throughout the country. The surfaces with low vegetation are characterized by high temperatures – as is the case with western to southern parts of the country.

CROP STAGE AND CONDITION

Maize and sorghum crops conditions are ranging from vegetative to flowering stages in most areas

of the lowlands. The crops in the western tip of Mafeteng, where it has been very dry and hot since the beginning of the current year, show that they need rainfall to further develop.

In the northern highlands the maize crop is at flowering and grain-filling stages. It is reported to be at good conditions.

Summer wheat has matured and its harvesting is currently in progress

DEKADAL OUTLOOK

11th – 20th January 2007

The coming ten days are expected to be mostly warm to hot. Isolated to scattered thundershowers especially in the eastern highlands are however anticipated with a possibility of localized hailstorms.

Table 1

Rainfall and Temperature Summaries												
		Rainfall (mm)					Temperature (°C)					
		Total From Sept 06 to 1st Dek Jan 07					1 - 10 Jan 2007					
STATION	ALT.	Actual	Normal	Rain			%Dept. from	Minimum	Maximum	Dekadal	Dekadal	
NAME	(M)	R/Fall	R/Fall	Days	Actual	Normal	Normal	Lowest(Day)	Highest (Day)	Mean	Normal	Deviation
Leribe	1740	8.3	31.3	3	334.8	321.6	4	9.2(8)	30(6)	20.4	20.7	-0.3
Mafeteng	1610	2.1	27.7	1	229.2	281.1	-18	6(8)	31(6,10)	20.4	20.5	-0.1
Maseru Airport	1530	1.9	28.7	2	222.6	291.9	-24	8.9(1)	32.2(6)	21.5	21.8	-0.3
Mohale's hoek	1600	5.7	31.7	3	343.7	302.8	14	6.5(1,8)	31(6,10)	20.5	19.9	0.6
Mokhotlong	2200	20.3	34.0	4	360.6	293.7	23	6.5(8)	27.1(6)	17.1	17.6	-0.5
Moshoeshoe I	1628	7.6	28.0	2	310.2	317.7	-2	8.2(8)	30.8(6)	20.8	21.4	-0.6
Ox-Bow	2600	11.7	52.7	4	589.6	567.6	4	-	21.8(6)	-	12.6	-
Phuthiatsana	1750	3.3	31.0	1	322.2	332.6	-3	9.1(8)	31(6)	21.0	21.3	-0.3
Qacha's Nek	1970	12	43.7	5	398.2	355.8	12	7.9(8)	29.4(6)	18.7	18.4	0.3
Quthing	1740	8.3	32.4	3	341.8	341.6	0	10(8)	30.5(6)	20.9	21.1	-0.2
Semonkong	2458	2.5	24.6	2	406.9	292.0	39	0.6(8)	25.6(6,10)	15.0	15.8	-0.8
Thaba-Tseka	2160	9.6	27.3	4	400.0	290.4	38	5.6(8)	26.2(6)	16.7	17.1	-0.4

Fig.4

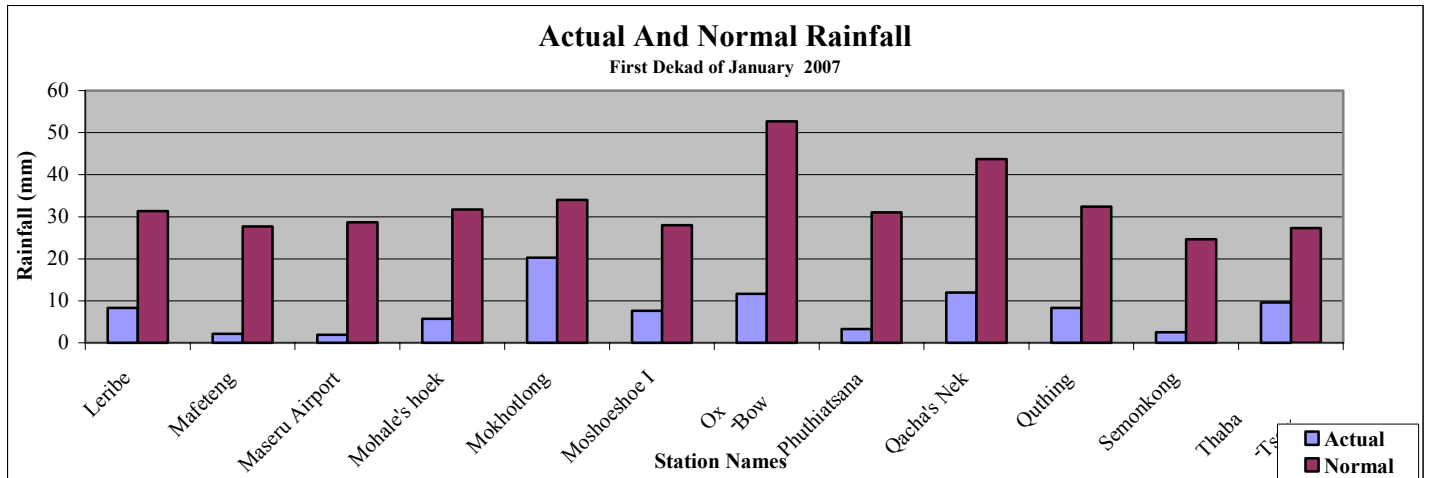
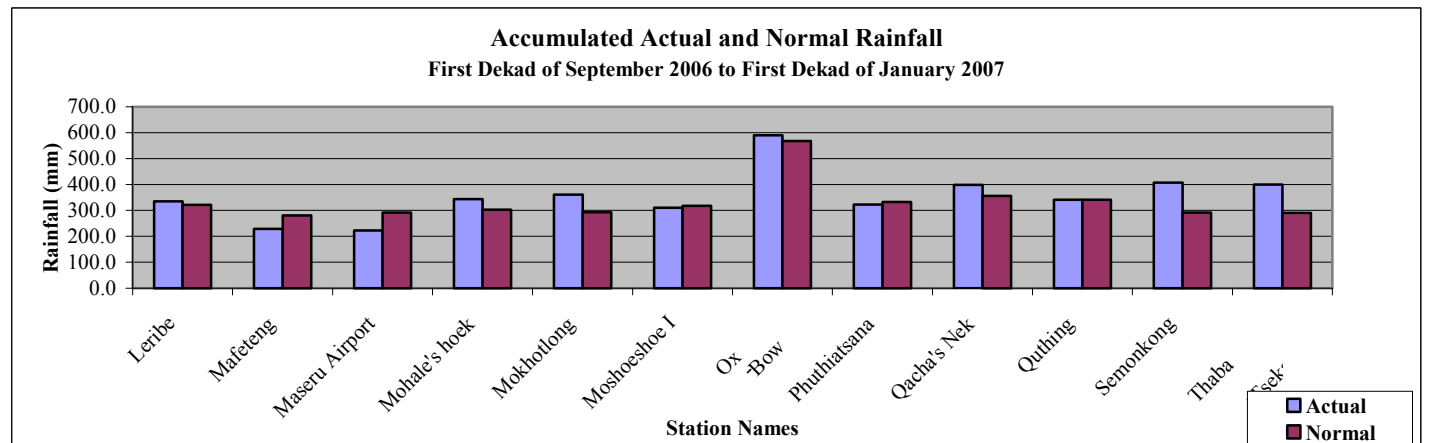


Fig.5



Glossary

Dekad : Ten day period

Normal: Average figure over a specific time period.

% Rainfall Departure from Normal: $(\text{Actual Rainfall} - \text{Normal Rainfall}) / \text{Normal Rainfall} \times 100$

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And it is

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Comments and Contributions would be highly appreciated.