LESOTHO METEOROLOGICAL SERVICES
(LEKALA LA TSA BOLEPI)

Ten-Day Agrometeorological Bulletin

21st – 31st December 2004

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

Contents

Highlights

- **Above normal rains in most parts of the country.**
- **High temperatures prevailed during the dekad countrywide.**
- **The Lowlands have not received adequate cumulative rains.**
- **Crops badly affected by hailstorms.**
- **Weeding active countrywide.**
- **First dekad of January expected to be dry.**

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WEATHER SUMMARY

21st – 31st December 2004

The interior trough that extended from Namibia southwards and south-eastwards, was the dominant feature during the last dekad of December 2004. That caused convergence of warm moist air over the country from the tropics and the Indian Ocean, and that resulted in the development of mainly convective weather conditions. The first two days of the dekad experienced scattered thundershowers and became mainly isolated for the rest of the dekad.

RAINFALL SITUATION

The country received near normal to above normal rainfall during the third dekad of December 2004 with the exceptions of Butha-Buthe and Qacha's Nek which had below normal rainfalls of 34.2mm and 30.6mm respectively. Quthing registered the highest rainfall of 73.8mm and although Maseru Airport, Mafeteng and Mokhotlong had near normal rainfall amounts of 25.2mm, 26mm and 28.7mm respectively, those were the lowest rainfalls of the dekad.

Cumulative percentage rainfall departure from Normal

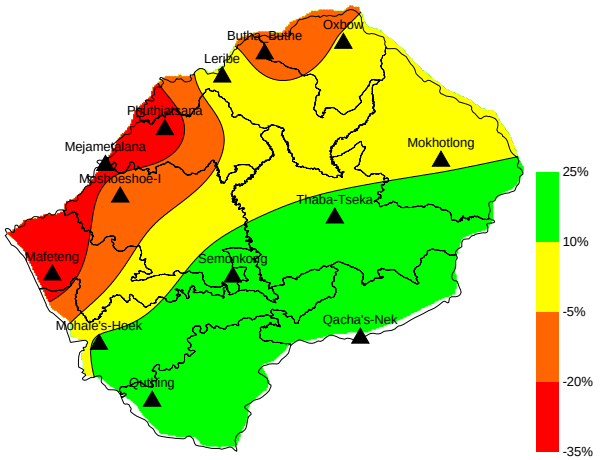


Fig.1: Cumulative rainfall departure from normal since 1st September to 31st December 2004.

Most parts of the Highlands have had about 300mm of cumulative rainfall (1st September to 20th December 2004). Ox-Bow has received the highest cumulated rainfall of 475.7mm followed by Qacha's Nek and Mohale's Hoek with 353.9mm and 302mm respectively. Maseru Airport, Phuthiatsana and Mafeteng so far had the lowest cumulated rainfall amounts below 200mm. (see table 1 & Fig 4).

TEMPERATURE

The Lowlands were very hot during the last dekad of December 2004. Maximum temperatures rose to above 30°C in some days and Maseru Airport had the highest maximum temperature of 33.7°C on the 31st. Qacha's Nek had the highest daily maximum of 29.9°C for the Highlands. Temperature deviations range from 0.5°C of Semonkong to 2.1°C of Maseru Airport. The high temperatures quickly depletes the soil water content and consequently, the vegetation is badly affected.

CROP STAGE AND CONDITION

The crops have been severely affected by hailstorms over most parts of the country, and it is feared that some crops may not easily recover and the winter wheat that had not been harvested is destroyed. The high temperatures increases the rates of evapotranspiration very significantly that the crops find it difficult to cope with. However, weeding is active countrywide.
With the current high temperatures there is a high likelihood that the hailstorms may be experienced once more.

DEKADAL OUTLOOK

01st – 10th January 2005

The first few days of the first dekad of January 2005 are likely to experience similar weather conditions as the last dekad of December as the surface trough seems to be persistent. These weather conditions are expected to change occasionally as the Atlantic ocean anticyclone is expected to progress eastwards towards the coming weekend and that would result in cool southerly winds and some thundershowers.

Table 1

Rainfall and Temperature Summaries

STATION NAME	ALT. (M)	Rainfall (mm) Actual R/Fall	Normal R/Fall	Rain Days	Total From Sept 04 to 3rd Dek Dec 04 Actual	Normal	%Dept. from Normal	Temperature (°C) 21 - 31 Dec 2004 Minimum Lowest(Day)	Maximum Highest (Day)	Dekadal Mean	Dekadal Normal	Deviation
Butha-Buthe	1770	34.2	59.2	7	271.5	314.8	-14	12.2 (29)	31.8 (31)	20.4	19.6	0.8
Leribe	1740	54.1	31.7	6	267.9	246.0	9	13.0 (25,27)	32.0 (31)	21.2	20.0	1.2
Mafeteng	1610	26.0	24.0	3	152.8	229.6	-33	11.3 (25)	32.0 (30)	21.2	20.1	1.1
Maseru Airport	1530	25.2	26.1	4	196.4	259.1	-24	11.5 (31)	33.7 (31)	22.8	20.7	2.1
Mohale's hoek	1600	51.5	33.0	4	302.0	267.3	13	13.0 (27, 29)	32.5 (30)	21.8	20.8	1.0
Mokhotlong	2200	28.7	30.4	8	267.1	244.0	9	8.9 (29)	27.6 (31)	18.0	16.3	1.7
Moshoeshoe I	1628	58.2	31.1	7	261.8	304.3	-14	10.6 (29)	32.2 (31)	22.1	N/A	N/A
Ox-Bow	2600	41.1	57.4	7	475.7	497.5	-4	5.2 (29)	22.6 (31)	13.3	11.7	1.6
Phuthiatsana	1750	41.3	33.7	5	190.1	276.9	-31	13.9 (29)	33.0 (31)	22.1	20.2	1.9
Qacha's Nek	1970	30.6	41.8	4	353.9	295.8	20	11.4 (24)	29.9 (27, 30)	19.3	17.9	1.4
Quthing	1740	73.8	27.8	7	299.8	265.4	13	12.3 (25)	31.3 (30)	21.2	19.8	1.4
Semonkong	2458	30.7	28.9	7	298.8	249.0	20	8.0 (29)	26.5 (31)	16.6	16.1	0.5

Fig.4

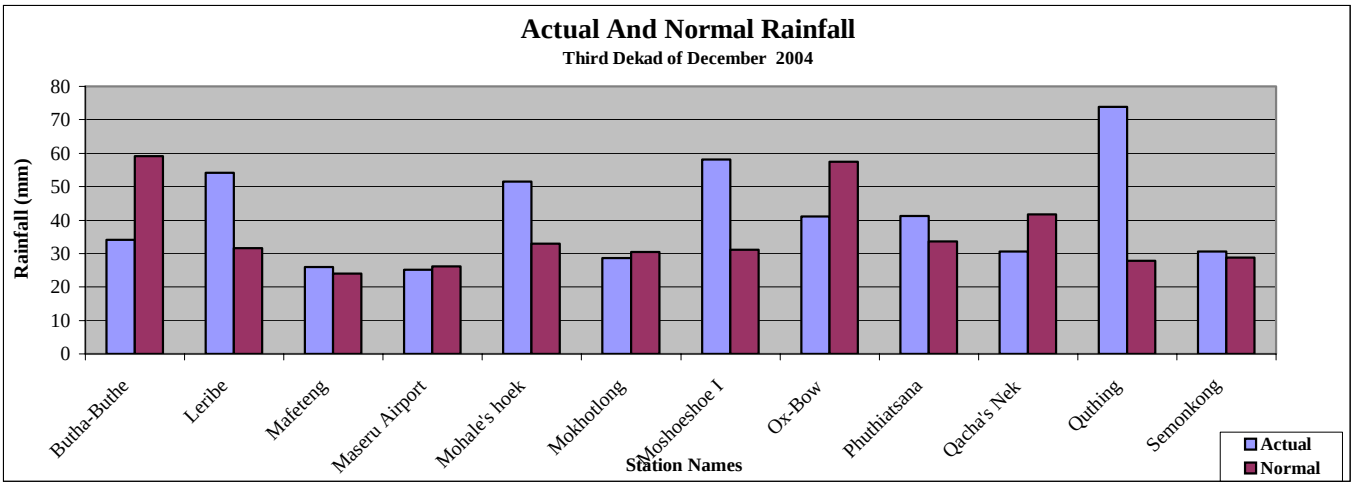
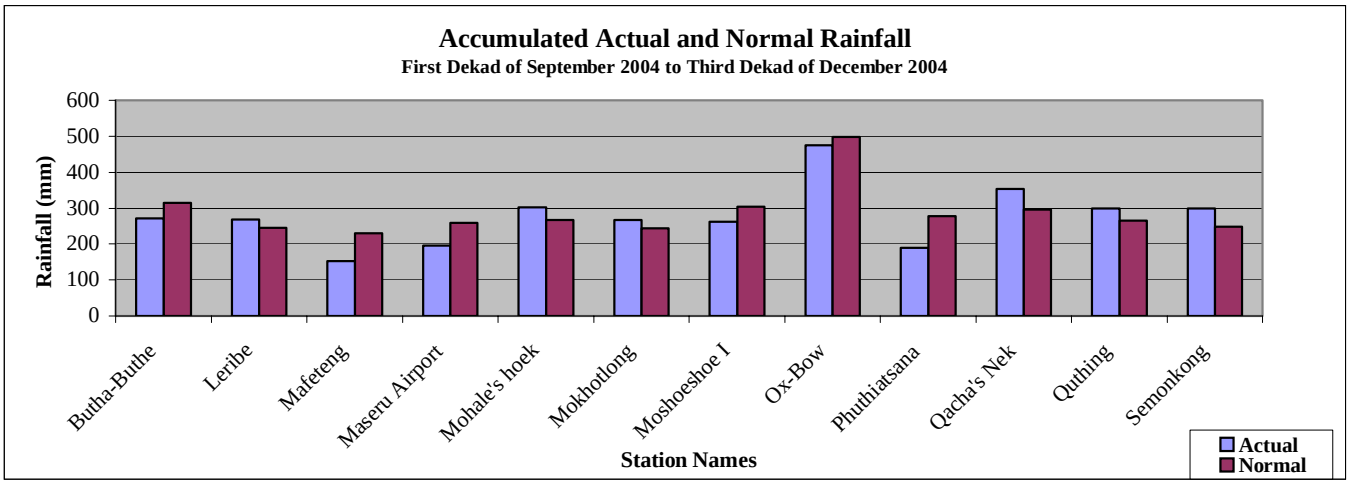


Fig.5



GLOSSARY

Dekad : Ten day period

Normal: Average figure over a specific time period.

% Rainfall Departure from Normal: (Actual Rainfall – Normal Rainfall)/ Normal Rainfall x 100

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And it is

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Comments and Contributions would be highly appreciated.