

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

1st – 10th January 2005



Issue No.08/2004-05

Vol.3

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

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Highlights

- ❑ Dry conditions in most parts of the country.
- ❑ High temperatures prevailed during the dekad countrywide.
- ❑ The Lowlands recording below normal cumulative rains.
- ❑ Crops over the lowlands in poor conditions.
- ❑ Rainfall situation to improve in the second dekad of January.

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WEATHER SUMMARY

01st – 10th January 2005

The first dekad of January was generally dominated by the interior trough during the first half and the Atlantic anticyclone, which ridged inland during the second half of the dekad. This anticyclone caused onshore flow of some moist air into the interior especially on the 4th. As a result, most parts of the country experienced dry and hot conditions with the exception of eastern parts (Qachas’nek and Mokhotlong), which received relatively high rainfall.

RAINFALL SITUATION

Rainfall for the first dekad of January 2005 ranges from 0.2mm recorded at Mafeteng to 81.4mm registered at Qacha’s Nek (Fig.3 & Table 1). Very low amounts of rainfall were mostly experienced over the lowlands with less 10mm of dekadal rainfall depicted from the satellite image and recording stations (Fig.1 and Table 1). The dry weather conditions over the lowlands is also depicted by rainy days of 1 to 3 days (Table 1). As compared to the normal, the country’s dekadal rainfall is more biased towards below normal with the exception of Butha Buthe and Oxbow with near normal rainfall while Mokhotlong and Qacha’s Nek recorded above normal dekadal rainfall.

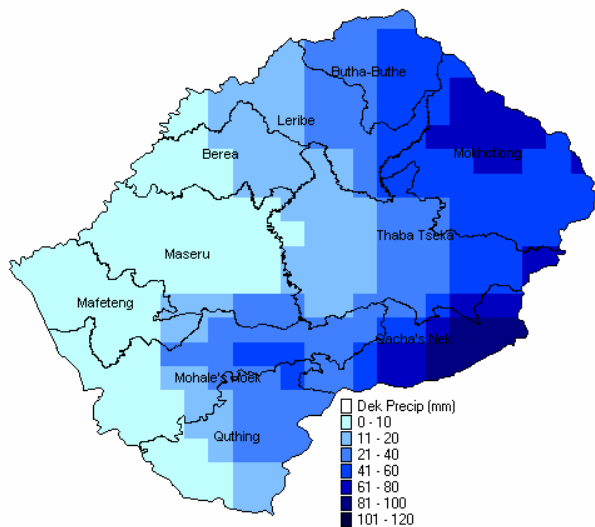


Fig 1: Satellite Image showing dekadal rainfall for the 1st dekad of January

Cumulative percentage rainfall departure from Normal

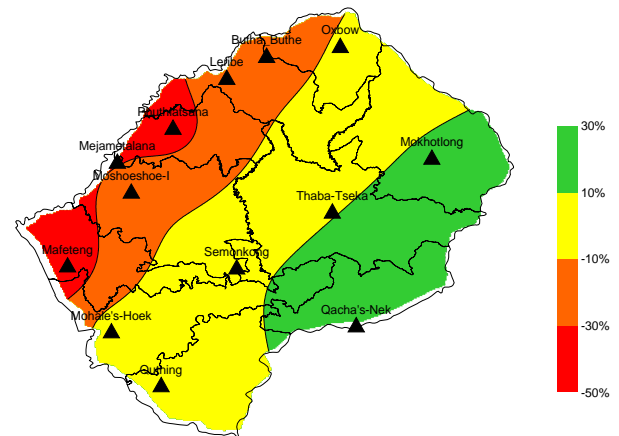


Fig.2: Cumulative rainfall departure from normal since 1st September to 10th January 2005.

Cumulative rainfall (1st September 2004 to 10th January 2005) is mostly near normal to below normal. The highest cumulative rainfall is registered at Oxbow and Qacha’s Nek with 519.6mm and 435.3mm respectively. Less than 200mm of cumulative rainfall is recorded over the lowlands districts of Mafeteng, Berea (Phuthiatsana) and Maseru (Table 1 & Fig 4).

TEMPERATURE

The temperatures were very high during the first dekad of January. Most stations in the low-lying areas experienced maximum temperatures exceeding 30°C on each day of the dekad. On the 7th they were extremely high and the low-lying areas had over 34°C with Maseru Airport recording the highest 36.4°C. Qacha’s Nek in the high-lying areas recorded 31.0°C. The temperature deviations reflect how high the temperatures were as compared to normal (Table 1).

CROP STAGE AND CONDITION

The crops in the low-lying areas experienced unfavourable conditions throughout the dekad. The temperatures were very high and very little rainfall was recorded resulting to high evapotranspiration and thus most plants

suffered from severe water stress. The progress of the crops that were affected by hailstorms especially over the lowlands was further hampered by the dry conditions experienced. Crop conditions over the high-lying areas in places like Mokhotlong are reported to be in good conditions.

DEKADAL OUTLOOK

11th – 20th January 2005

The interior trough is anticipated to redevelop and deepen during the second dekad. As a result rainfall situation is expected to improve as compared to the previous one. Temperatures are expected to drop slightly during this period, whereby it will be mild to warm.

Table 1

Rainfall and Temperature Summaries												
		Rainfall (mm)						Temperature (°C)				
		Total From Sept 04 to 1st Dek Jan 05						01 - 10 Jan 2005				
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
Butha-Buthe	1770	30	34.1	3	301.5	374.8	-20	13.2(4)	33.5(7)	23	20.3	2.7
Leribe	1740	6	31.3	2	273.9	321.6	-15	14.3(8,10)	34.0(7)	23.6	20.7	2.9
Mafeteng	1610	0.2	27.7	1	153.0	281.1	-46	13.2(14)	35.0(7)	24.0	20.5	3.5
Maseru Airport	1530	3.3	28.7	2	199.7	291.9	-32	15.0(10)	36.4(7)	25.3	21.8	3.5
Mohale's hoek	1600	0.6	31.7	1	302.6	302.8	0	14.0(4)	36.0(7)	24.1	21.2	2.9
Mokhotlong	2200	66	34.0	6	333.1	293.7	13	10.0(10)	30.2(7)	18.9	17.6	1.3
Moshoeshoe I	1628	4.5	28.0	2	266.3	317.7	-16	15.0(4)	34.5(7)	24.4	21.4	3.0
Ox-Bow	2600	43.9	52.7	6	519.6	567.6	-8	6.0(4)	27.6(2)	14.8	12.6	2.2
Phuthiatsana	1750	7.2	31.0	3	197.3	332.6	-41	15.0(10)	35.0(7)	24.6	21.3	3.3
Qacha's Nek	1970	81.4	43.7	8	435.3	355.8	22	10.1(10)	31.0(7)	19.6	18.4	1.2
Quthing	1740	8.4	32.4	3	308.2	341.6	-10	14.4(10)	34.1(7)	23.9	21.1	2.8
Semonkong	2458	9.4	24.6	5	308.2	292.0	6	6.5(1)	28.9(7)	17.8	15.8	2.0

Fig.3

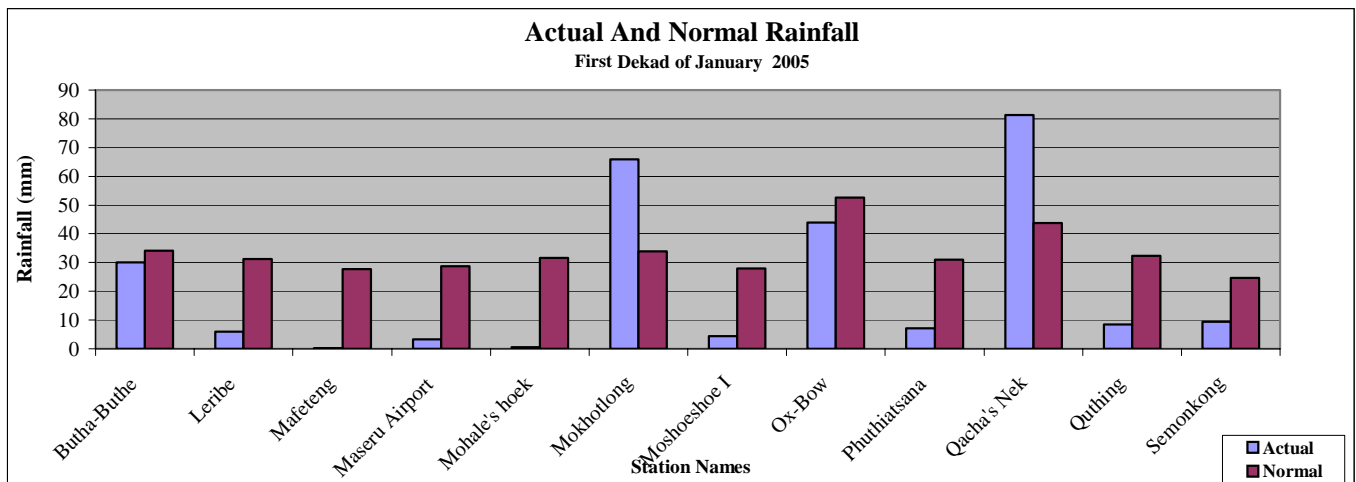
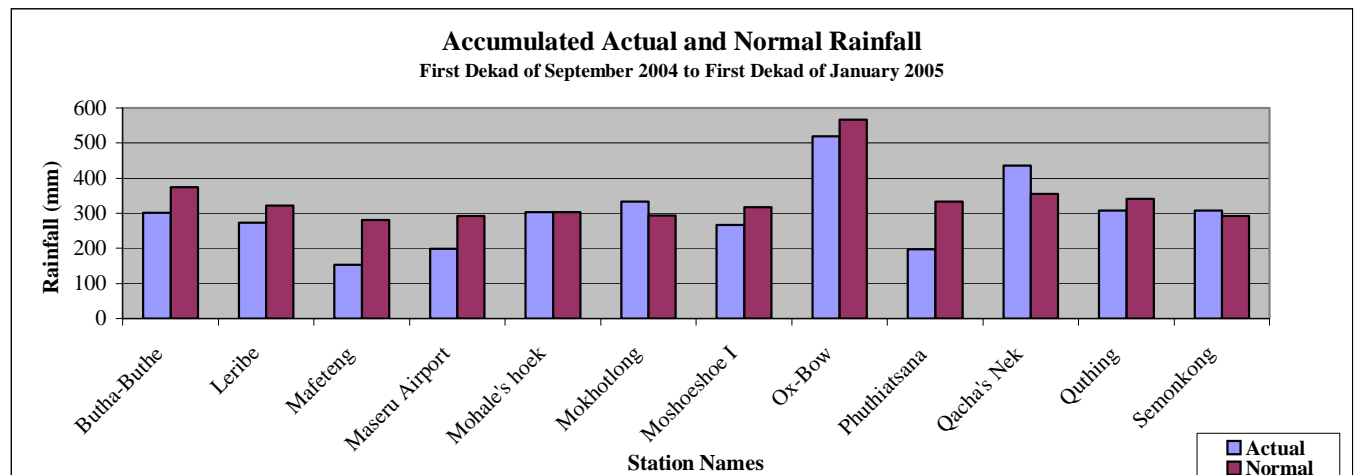


Fig.4



GLOSSARY

Dekad : Ten day period

Normal: Average figure over a specific time period.

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

This Bulletin is issued during the Summer Cropping Season (October – April).

And it is

Produced by the

Lesotho Meteorological Services as a contribution to the

National Early Warning Unit for Food Security.

The Unit is coordinated by the Disaster Management Authority in the

Prime Minister's Office.

Comments and Contributions would be highly appreciated.