

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

11th – 20th February 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 prevailed.
- ❑ Cool weather conditions occurred.
- ❑ Crops in danger of collapsing

Next Dekad Preview

- ❑ Hot temperatures expected.
- ❑ Isolated thundershowers anticipated over northeast.

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WEATHER SUMMARY

11th – 20th February 2007

Dry conditions continued to dominate as the rain-bearing systems remained shallow and confined to the north. The period was characterized by two extreme weather conditions. In the beginning of the period, a strong cold front brushed the southern tip of the subcontinent resulting in very cold weather conditions over the southern parts. Temperatures began to rise steadily thereafter.

RAINFALL SITUATION

The second dekad of February 2007 was the driest period since the commencement of the current agricultural season. It also follows a series of consecutive dry dekads since the beginning of January 2007. The dekadal rainfall was below 10mm (way below dekadal normal rainfall) in all parts of the country, and most parts of the country did not receive even a drop of rainfall in this dekad under review.

The dekadal rainfall received was also far from satisfying water requirements of crops, which are presently at water demanding stages (see table 1 & fig 4).

Departure from normal of Cumulative Rainfall map

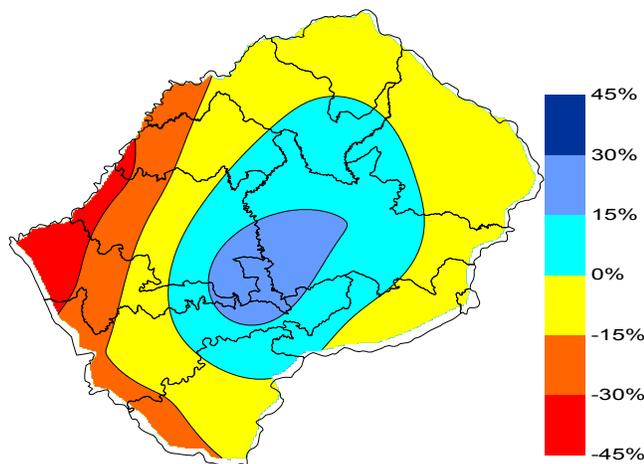


Fig.1: Cumulative rainfall departure from normal since 1st September to 20th February 2007.

Percentage departure from normal, of cumulative rainfall, is rapidly decreasing and presently all areas of the country except Thaba-Tseka and Semonkong are under cumulative rainfall deficits

(see fig 1 & table 1). Huge deficits are observed in Maseru and Mafeteng.

The cumulative rainfall since January contributes less than 25% of the total amount since beginning of September. Semonkong, Leribe, Thaba-Tseka and Qacha's Nek are the only parts of the country to receive greater than 100mm but less than 130mm of cumulative rainfall since January, while the western and southwestern regions only accumulated average of 54mm of rainfall since January.

TEMPERATURE

The temperatures cooled significantly at the beginning of the dekad due to the passing of a frontal system. The lowest minimum temperature of the dekad that had potential to damage some crops was 0.5°C on the 13th at Semonkong. Minimum temperatures were lowered to below 10°C all over the country during the first days of the dekad under review. Due to those low temperatures in the beginning of the dekad, dekadal mean temperature deviations lowered to below freezing temperature in most parts of the country.

However, temperatures increased with the progress of the dekad. Highest maximum temperature of the dekad was 33.5°C on the 20th (see table 1). The low-lying areas experienced at least two to six days with above 30°C, and the most days (6) were at Maseru and Mohale's Hoek.

CROP STAGE AND CONDITION

Due to the prevailing dry weather conditions, plant development is at stagnant stage. Crops are at tasseling, silking, and yield formation stages. Crops are continuing to be under severe water deficits. Crops in the northern lowlands which are mostly at grain filling stages have been subjected to drought and heat stress; and this can often abort substantial numbers of developing kernels after pollination. The crops in the other

parts of the country cannot make a significant progress beyond vegetative stages. The highlands are approaching the frost dates (onset in March). Therefore, this season yields are expected to be affected negatively by weather conditions.

DEKADAL OUTLOOK

21st – 28th February 2007

The first ten days are expected to be dry and relatively hot. Isolated* thundershowers are anticipated mainly over the northern and northeastern parts of the country.

(* See Glossary)

Table 1

Rainfall and Temperature Summaries												
		Rainfall (mm)					Temperature (°C)					
		Dekadal			Total From Sept 06 to 2nd Dek Feb 07		11 - 20 Feb 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
Butha_Buthe	1770	6.0	42.3	1	533.1	564.0	-5	6.8 (12)	31.0 (19)	18.9	19.4	-0.5
Leribe	1740	1.5	42.3	1	435	492.3	-12	7.2 (12)	31.7 (20)	19.4	19.8	-0.4
Mafeteng	1610	0.0	38.6	0	283.1	434.5	-35	6.1 (11)	33.5 (20)	19.5	20	-0.5
Maseru Airport	1530	0.0	36.1	0	275.1	445.0	-38	8.3 (13)	33.3 (19)	20.9	20.8	0.1
Mohale's hoek	1600	0.0	38.4	0	390.4	456.3	-14	5.0 (13)	33.0 (18)	19.7	20.6	-0.9
Mokhotlong	2200	0.0	30.4	0	409.4	434.7	-6	4.8 (13)	29.7 (18)	17.3	16.9	0.4
Moshoeshe I	1628	0.0	40.5	0	373.4	489.1	-24	6.5 (12)	32.5 (19)	20.1	20.1	0.0
Phuthuatsana	1750	0.0	34.0	0	410.2	506.9	-19	7.6 (12)	31.9 (19)	20.6	20.4	0.2
Qacha's Nek	1970	9.1	42.1	1	491.2	549.1	-11	6.9 (13)	30.4 (18)	17.9	17.4	-2.5
Quthing	1740	0.0	38.3	0	408.4	500.7	-18	7.5 (12, 13)	32.0 (18)	19.9	20.2	2.5
Semonkong	2458	0.1	25.4	1	550.1	426.4	29	0.5 (13)	26.6 (18)	13.6	15.1	-6.6
Thaba-Tseka	2160	1.4	32.2	1	503.4	435.8	16	5.0 (13)	27.8 (18)	16.5	16.4	1.4

Fig.4

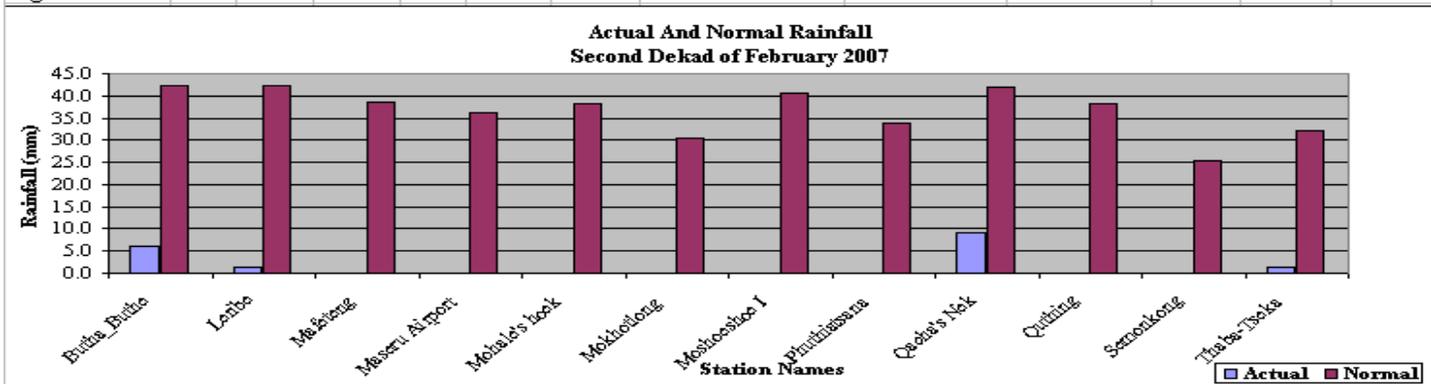
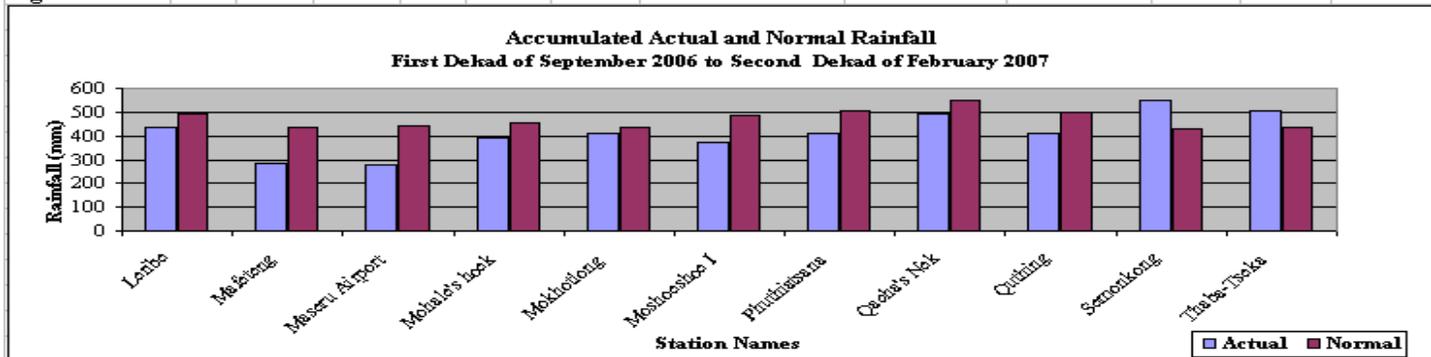


Fig.5



Glossary

Dekad: Ten-Day period

Normal: Average figure over a specific time period.

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

*Isolated Thundershowers: Thundershowers at few places

Scattered Thundershowers: Thundershowers at many places

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And it is

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Comments and Contributions would be highly appreciated.