

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

1st – 10th 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

- ❑ Dry weather conditions continued into this dekad.
- ❑ Hot weather conditions prevailed.
- ❑ Crops experienced large water deficits

Next Dekad Preview

- ❑ Cooler temperatures expected.
- ❑ Isolated thundershowers anticipated over the north and northeast.

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WEATHER SUMMARY

1st – 10th February 2007

Scattered to widespread rainfall was received both on the 1st and 2nd Feb. 2007. This was a result of influx of tropical moist air from the north and advection of low-level moisture induced by the Indian Ocean Anticyclone converging over our area. Temperatures were high in this period.

RAINFALL SITUATION

A series of dry dekads continued into February 2007. Low-lying areas and parts of Mokhotlong in the highlands were dry. Mohale’s Hoek with 9.5mm accumulated the lowest dekadal rainfall. Only the high-lying areas of Semonkong, Thaba-Tseka and Qacha’s Nek received dekadal rainfall greater than 25mm. Semonkong (44.7mm) remained the only area to have above normal dekadal rainfall (table 1, fig 1 & fig 4).

The rain days although they can be high in some places, cannot have any particular significance since the daily rainfall was always very low during the dekad under review.

Fig 1 is a satellite imagery that gives rainfall estimates in a dekad. It shows that southern lowlands, parts of Maseru and some regions of northeastern highlands received significantly low dekadal rainfall.

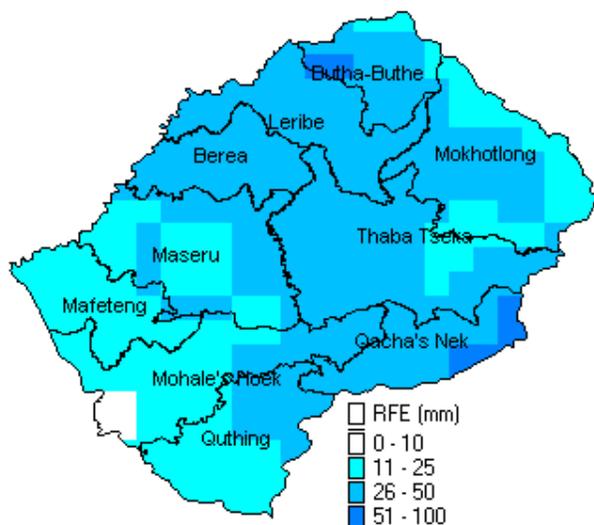


Fig 1: Dekadal Rainfall Estimates for 1st dekad of February 2007

Percentage departure from normal of cumulative rainfall continued to decrease due to very low rainfall amounts accumulated during the first dekad of February 2007. Fig 2 represents the cumulative rainfall for Maseru Airport (Mejametalana), which gives a picture of cumulative rainfall over the lowlands especially the southern lowlands. Cumulative rainfall is below normal in most parts of the country and this can affect the ground water resources in those areas.

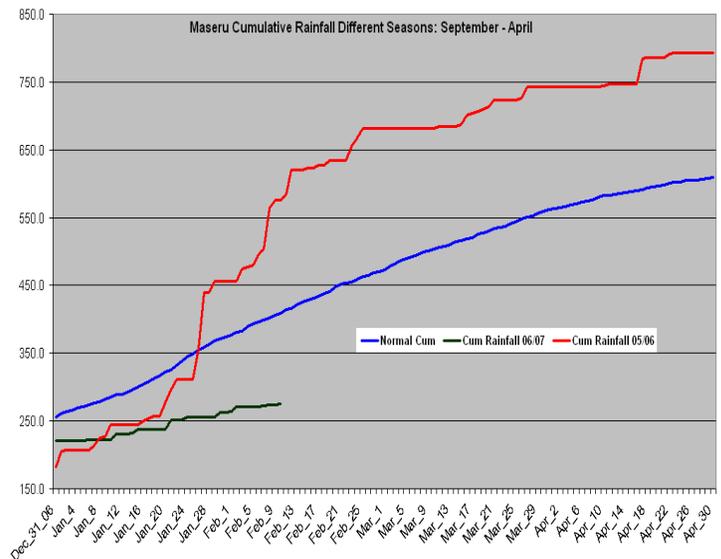


Fig 2: Maseru Cumulative Rainfall Since September 06 – February 07. Green 2006/07, Red 2005/06, Blue Normal.

TEMPERATURE

Temperatures remained hot in this dekad. Deviations of actual dekadal mean temperature from dekadal normal were high countrywide (table 1). However, precipitation experienced at Thaba-Tseka and Semonkong regulated and maintained temperatures from rising too high from normal. The high temperatures increased the rate of evapotranspiration, which depleted water that would otherwise be used by the crops. Daily maximum temperatures in the low-lying areas were high as all the lowlands had at least a day with over 30°C. Daily minimum temperatures in the high-lying areas were less than 10°C in some days (table 1).

CROP STAGE AND CONDITION

Summer crops are mostly at stages varying from tasseling, silking, and yield formation in some places in the northern lowlands. Crops are currently under severe water stress due to prevailing dry weather. Huge water deficits at these phenological stages may result in little or no grain yield due to silk drying.

It is however, reported that crops in the northern lowlands have not been severely affected by

water deficits as yet. Elsewhere, crops are undergoing severe inadequacy of water supply.

DEKADAL OUTLOOK

11th – 20th February 2007

The coming ten days are expected to experience relatively cooler and dryer conditions. However there is a chance of light and isolated thundershowers mainly in the northeastern parts towards the end of the period.

Table 1

Rainfall and Temperature Summaries												
STATION	ALT. (M)	Rainfall (mm)					Temperature (°C)					
		Dekadal			Total From Sept 06 to 1st Dek Feb 07		1 - 10 Feb 2007			Dekadal		
NAME	(M)	Actual R/Fall	Normal R/Fall	Rain Days	Actual	Normal	%Dept from Normal	Minimum Lowest(Day)	Maximum Highest (Day)	Mean	Normal	Deviation
Leribe	1740	20.9	39.1	4	433.5	450.0	-4	31.2(4)	11.8(4)	21.7	20.5	1.2
Maseru Airport	1530	12.6	33.8	6	275.1	408.9	-33	32.5(4)	14.5(4)	23.2	21.4	1.8
Mohale's hoek	1600	9.5	34.1	5	390.4	417.9	-7	33.5(9)	12(2)	22.8	21.2	1.6
Mokhotlong	2200	11.2	32.3	3	409.4	404.3	1	28.6(9)	8.8(9)	18.4	17.4	1.0
Moshoeshe I	1628	24.6	38.3	6	373.4	448.6	-17	32(4)	13.5(3)	22.5	21.3	1.2
Phuthiatsana	1750	11.0	43.1	5	410.2	472.9	-13	31.5(4)	12.1(9)	22.3	20.6	1.7
Qacha's Nek	1970	30.4	50.8	7	482.1	507	-5	29.6(9)	11.6(2)	19.5	18.2	1.3
Quthing	1740	22.5	40.1	4	408.4	462.4	-12	31.9(9)	12(4)	22.5	20.9	1.6
Semonkong	2458	44.7	33.2	5	550	401.0	37	25.2(9)	7(6)	16.3	16	0.3
Thaba-Tseka	2160	28.0	37.6	7	502	403.6	24	25.4(4)	9.9(2)	17.4	16.5	0.9

Fig.4

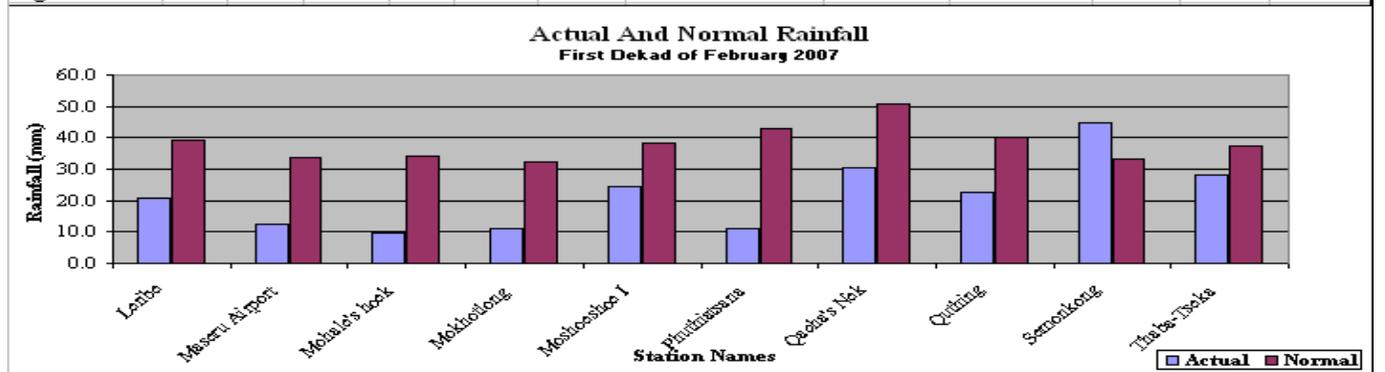
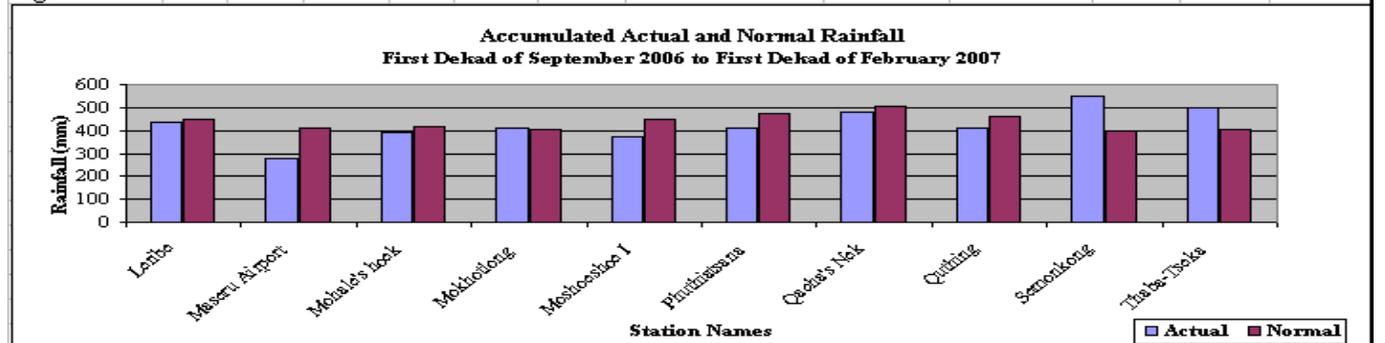


Fig.5



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.