

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

11th – 20th March 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.
- ❑ Prospects of poor summer crops yield.

Next Dekad Preview

- ❑ Dry weather conditions expected.

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WEATHER SUMMARY

11 – 20 March 2007

The interior surface trough remained shallow with no moisture influx over the country. Therefore dry and warm to hot conditions persisted. The only significant event was a passage of a deep cold depression (front) on the 19th south of the subcontinent over the Indian Ocean. The result was an advection of moderate and cold dry southerly air over the country. Cold to very cold conditions especially in the highlands were experienced throughout the country on the 19th and 20th.

RAINFALL SITUATION

A series of dry dekads has been continuing since the beginning of January up to the dekad under review. The rest of the country experienced extremely poor rainfall except Mokhotlong (18.5mm), which received normal dekad rainfall and was the only area with above 10mm of dekad rainfall. The entire lowlands did not have a drop of rainfall (see table 1 & fig 2). Rainfall since the first dekad of January 2007 has been erratic and dry spells have dominated this season. The southern and western parts of the country have been the most affected by the drought that resulted.

Cumulative percentage rainfall departure from Normal

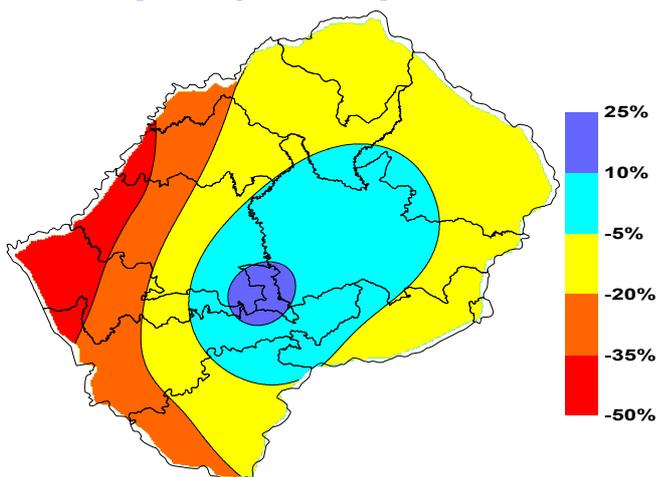


Fig.1: Cumulative rainfall departure from normal since 1st Sept to 20th March 2007.

The highest cumulative rainfall since September is 599mm at Semonkong (see table 1 & fig 3) while the lowest cumulative rainfall so far is

observed at Maseru Airport (Mejametalana). Fig1 shows that the western areas of Mafeteng, parts of Maseru and Bera are experiencing huge deficits of cumulative rainfall. The rainfall percentage departure from normal has been on the free fall since the current calendar year. Cumulative rainfall since January to date in the highlands accounts for over 50% of normal for the same period, and Semonkong (66%) has the highest contribution while on average, the northern areas of Leribe and Butha-Buthe range between 40% and 49%. Phuthiatsana (34%), Quthing (36%) and the southern lowlands have 25% of normal rainfall since January.

TEMPERATURE

Mean dekadal temperatures were below normal in the highlands and some few areas of the lowlands. The cold front that traversed over the country during the last days of the dekad reduced them. The daily minimum temperatures over the highlands were below freezing on the 19th, thus it is highly probable that frost may have destroyed some crops in those areas (see table 1). The lowest daily minimum temperature of the dekad was recorded at Ox-Bow with -3.3°C on the 19th. Daily maximum temperatures rose to as high as above 30°C in some days of the dekad.

CROP STAGE AND CONDITION

Summer crops have faced a serious water stress throughout the country since January because of dry weather that prevailed and is still continuing. Some crops have turned yellowish. Drought conditions coupled with excessive heat have had negative impacts on agriculture. According to the Agrometshell tool, summer crops in the southern lowlands including Maseru and Bera are the most affected where production ranges from poor to a complete failure. Crops in the rest of the country are at mediocre conditions. The drought conditions destroyed vegetable production.

WATER SITUATION

The water availability in the capital Maseru and probably some other areas is greatly affected by the current drought condition. In order to supplement the water supply to the capital, there will be an emergency water release from the

Lesotho Highlands Development Authority Katse dam on the 22nd March. The current drought condition poses a threat that water resources in the capital and the rest of the country in the coming season of spring (August – October 2007) will be stressed.

DEKADAL OUTLOOK

21-31 March 2007

Dry conditions are expected to continue. The period will be mostly partly cloudy and warm

becoming cooler at times with the passage of cold fronts south of the subcontinent. However, isolated thundershowers can still be expected.

Table 1

Rainfall and Temperature Summaries												
STATION NAME	ALT. (M)	Rainfall (mm)						Temperature (°C)				
		Actual R/Fall	Normal R/Fall	Rain Days	Total From Sept 06 to 2nd Dek Mar 07			11 - 20 Mar 2007				
					Actual	Normal	%Dept. from Normal	Minimum Lowest(Day)	Maximum Highest (Day)	Dekadal Mean	Dekadal Normal	Deviation
Butha-Buthe	1770	0	41	0	562.2	670	-16	4.9(20)	30.5(14,15)	19.0	18.1	0.9
Lenbe	1740	0	29.9	0	467.8	581.6	-20	2(19)	31.6(14)	18.7	18.2	0.5
Mafeteng	1610	0	31.5	0	296.9	530.7	-44	3(19)	33(11)	17.9	18.0	-0.1
Maseru Airport	1530	0	28.9	0	284.0	531.2	-47	3.5(19)	32.5(14)	19.3	19.2	0.1
Mohale's hoek	1600	0	29.2	0	408.3	552	-26	3(19)	32(13)	17.7	18.7	-1.0
Mokhotlong	2200	18.5	21	1	470.8	508.7	-7	-1(19)	25.7(14)	14.6	15.6	-1.0
Moshoeshoe I	1628	0	34.5	0	387.7	595.7	-35	4(19)	32.2(14)	19.1	19	0.1
Ox-Bow	2600	1	48.6	1	-	942.2	-	-3.3(19)	20.6(16)	10.6	10.6	0.0
Phuthiatsana	1750	0	35.5	0	417.3	596.5	-30	3(19)	32(15)	19.2	18.9	0.3
Qacha's Nek	1970	7.2	28.8	2	550.2	643.8	-15	2.9(19)	28(13)	15.9	16.6	-0.8
Quthing	1740	2	38.6	1	454.3	611.3	-26	3(19)	30.5(13)	18.5	18.6	-0.1
Semonkong	2458	0	24.8	0	599.0	505.9	18	-2.1(20)	26(14)	11.9	13.7	-1.8
Thaba-Tseka		0.5	25.8	1	536.8	516.3	4	0.5(19)	26(14)	14.7	15.4	-0.7

Fig.2

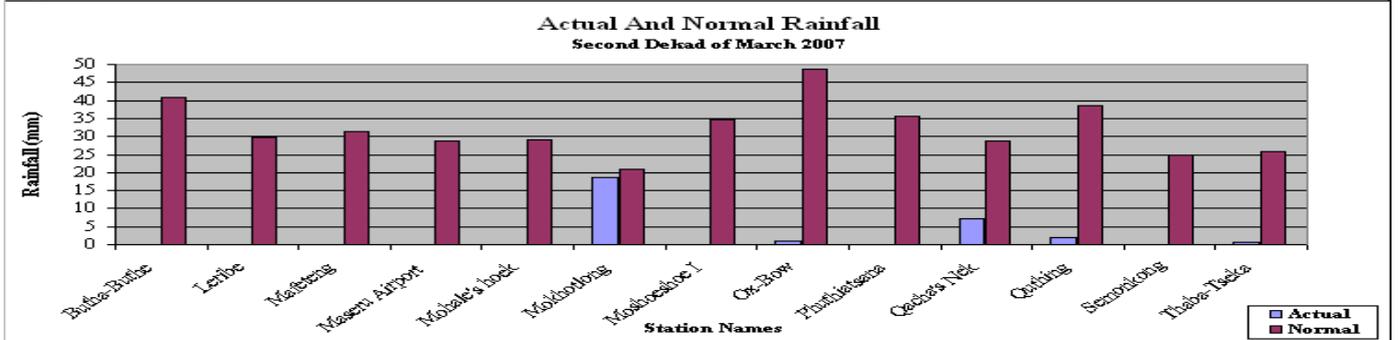
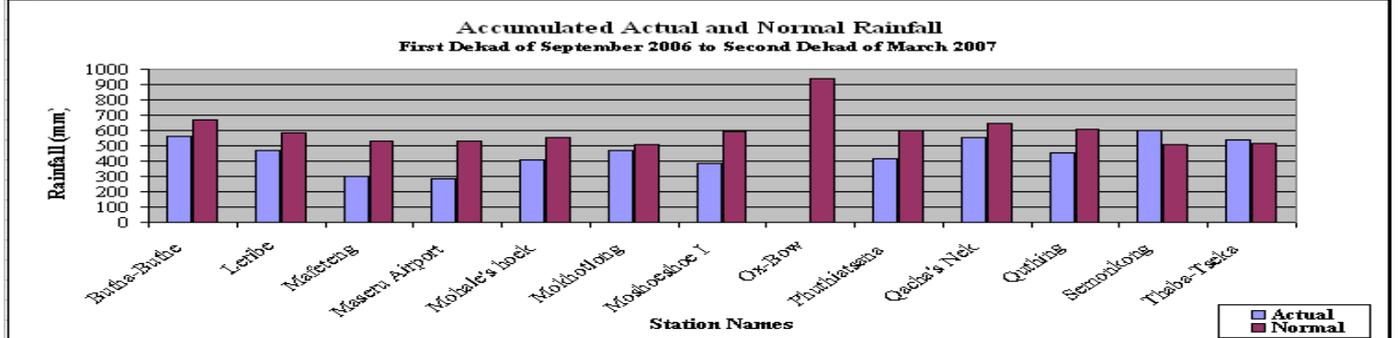


Fig.3



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

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

And it is

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Comments and Contributions would be highly appreciated.