

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

21st – 31st December 2006



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

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Highlights

- ❑ Above normal dekadal rains recorded.
- ❑ Warm temperatures prevailed during the dekad countrywide.
- ❑ Normal to above normal cumulative rainfall in the highlands.
- ❑ Weeding of crops in progress.
- ❑ The next ten days expected to be dry and hot.

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WEATHER SUMMARY

The surface interior trough coupled with a semi permanent low over Eastern Cape was fairly active and as a result there was moisture influx over the sub continent from the north. There was also low-level moisture convergence from the east induced by the Indian Ocean Anticyclone (IOA). Scattered to widespread rain with thundershowers occurred. At upper levels the flow was either zonal or anticyclonic. Temperatures were generally warm.

RAINFALL SITUATION

The preceding dekad mainly had below normal rainfall, but the last dekad of December 2006 experienced normal to above normal dekad rainfall. Butha-Buthe with 46.5mm on the 21st and Semonkong with 35mm on the 23rd had highest daily rainfall in this dekad, and Butha-Buthe accumulated the highest dekad rainfall of 131.1mm (see table 1 & fig 2).

The temporal distribution of the rain was good as there are not less-than five rainy days. The good temporal distribution of the rain in the dekad has helped the water to infiltrate into the soil and thus improve soil moisture content.

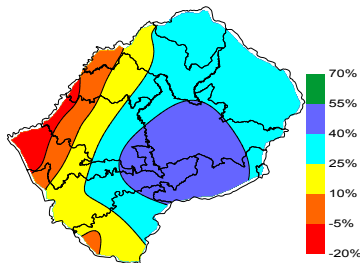


Fig.1: Cumulative rainfall departure from normal since 1st September to 31st December 2006.

Cumulative rainfall since the first dekad of September 2006 to the third dekad of December 2006 is normal to above normal. It is only Mafeteng and Maseru Airport that have actual cumulative rainfall less than normal. The highlands have so far obtained above normal cumulative rainfall (see fig 1, fig 3 & table 1).

TEMPERATURE

The temperatures were slightly warmer than normal during the dekad under review. Mafeteng is the only area to have registered below normal dekadal temperature. There have been chilly days when daily minimum temperatures dropped to as low as 10°C in the highlands with Semonkong cooling to as low as 3°C on the 31st. Mafeteng in the lowlands had 6.1°C on the 31st. The highest daily maximum temperature 31.2°C was obtained at Quthing on the 25th (see table 1).

CROP STAGE AND CONDITION

Summer crops (maize and sorghum) are currently at vegetation stage in most parts of the country. Furthermore, weeding of these crops is in progress. The harvesting of Winter wheat is in progress.

DEKADAL OUTLOOK

1st – 10th January 2007

The coming dekad is expected to be dry and hot. Isolated thundershowers are however anticipated especially in the northeastern parts of the country.

Table 1

		Rainfall and Temperature Summaries										
		Rainfall (mm)				Total From Sept to 3rd Dek Dec 06		Temperature (°C)				
		Dekadal		Rain Days			%Dept. from Normal	21 - 31 December 2006		Dekadal Mean	Dekadal Normal	Deviation
STATION NAME	ALT. (M)	Actual R/Fall	Normal R/Fall		Actual	Normal		Minimum Lowest(Day)	Maximum Highest (Day)			
Butha-Buthe	1770	131.1	36.3	6	433.2	340.7	27	14.2(22)	27.4(26,27,28)	20.5	19.7	0.8
Leribe	1740	47.9	33.1	5	326.5	290.3	12	10.5(31)	29.4(28)	20.7	20.2	0.5
Mafeteng	1610	46.1	28.3	5	227.1	253.4	-10	6.1(31)	29.5(26)	20.1	20.3	-0.2
Maseru Airport	1530	46.9	29.5	6	220.7	263.2	-16	14.6(22)	30.6(28)	21.9	21.2	0.7
Mohale's hoek	1600	59.9	30.5	5	338	271.1	25	13.6(22)	29(23)	21.4	20.8	0.6
Mokhotlong	2200	59.7	31.9	8	340.3	259.7	31	8.5(31)	26.7(28)	17.6	17.1	0.5
Moshoeshoe I	1628	75.5	41.6	7	302.6	289.7	4	10.5(31)	29.9(28)	21.2	20.7	0.5
Phuthiatsana	1750	85.2	23.5	5	318.9	301.6	6	10.9(31)	29.3(28)	21.1	21	0.1
Quthing	1740	37.6	38.9	5	333.5	309.2	8	11(31)	31.2(25)	20.8	20.4	0.4
Semonkong	2458	93.4	30.4	7	404.4	267.4	51	3(31)	25(26)	15.9	15.6	0.3
Thaba-Tseka	2160	78.7	34.2	10	390.4	263.1	48	8.2(31)	25.1(28)	17.0	16.7	0.3

Fig.2

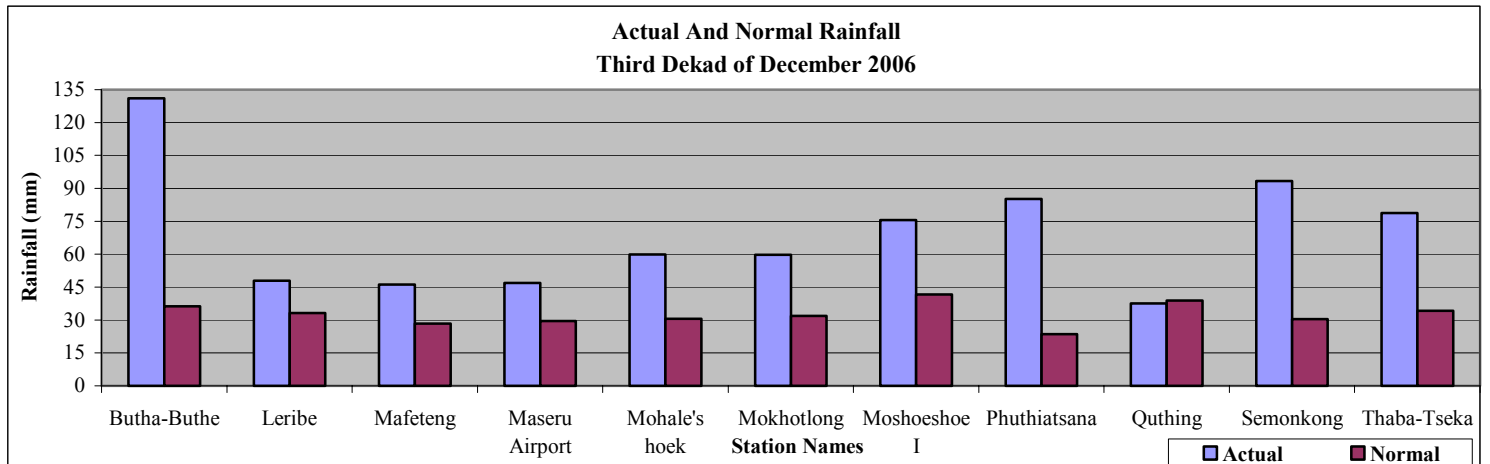
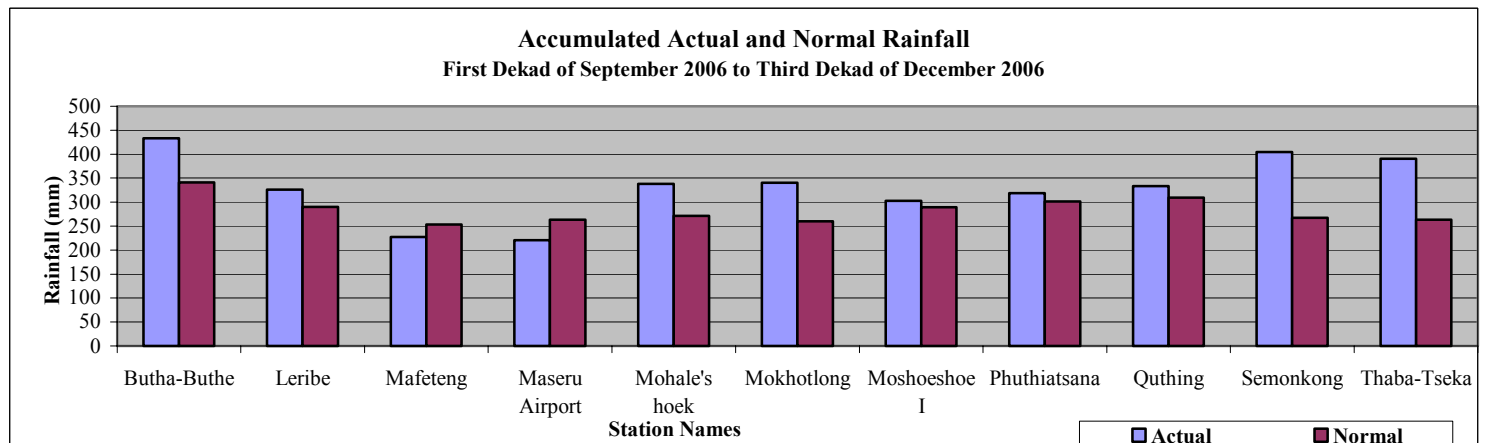


Fig.3



Glossary

Dekad: Ten-day period

Normal: Average figure over a specific time period.

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

NDVI: Normalized Difference Vegetation Index -

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And it is

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Comments and Contributions would be highly appreciated.