LESOTHO METEOROLOGICAL SERVICES

(LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

20th - 31st December 2005



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

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Highlights

- □ Below normal rains throughout the country.
- □ Dry weather conditions observed.
- □ Insufficient cumulative rains received.
- Vegetation cover very low over the southern Lowlands.
- □ The next ten days expected to be warm and wet.

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WEATHER SUMMARY

A high-pressure cell dominated the southern part of the sub-continent and redged inland. This resulted in dry weather conditions observed over our region during this period. The ridge weakened towards the end of the month and thus allowing influx of moisture as the interior trough. which was north of our region filled up and south-eastwards. **Temperatures** progressed remained relativey warm with maximum temperatures ranging between 21°C and 31°C for the lowlands and between 16°C and 29°C for the highlands. Lowest minimum temperature of 10.7°C was recorded at Moshoeshoe I on the 10th while 3.0°C was reported at Semonkong on the 28th.

RAINFALL SITUATION

The rainfall received throughout the country was far below the dekadal normal rainfall with Maseru I as an exception where 31.5mm amount of rainfall was registered which is slightly above normal. The rain days range between 1 to 4 days and the distribution was very poor. Apart from that the lowest dekadal amount of rainfall of 5.2mm was registered at Oxbow (see table 1). These low rainfall amounts are not sufficient to sustain crops at any stage of their growth hence some crops were stressed due to shortage of soil moisture. The temperatures also bring more harm to crops because they are very high and they (temperatures) are expected to remain so throughout the forecast period.

Cumulative percentage rainfall departure from Normal

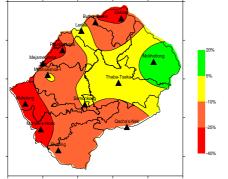


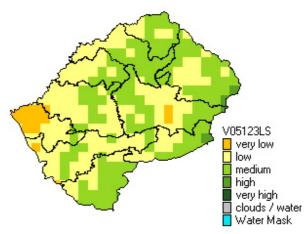
Fig.1: Cumulative rainfall departure from normal since 1st Sept to 31st December 2005.

Cumulative rainfall (1st September to 31st 2005) Mokhotlong December in Moshoeshoe I was above normal cumulative rainfall (Table 1 & Fig 1). And the rest of the country registered below normal cumulative rainfall. The deficit of cumulative rainfall ranges between 7 to 36. This indicates that the country has experienced dry spells and it is likely to experience even more. As a result the agricultural activities might be stressed and harmered

TEMPERATURE

The temperatures experienced during the last dekad of December were slightly below the normal in most parts of the country. This implies that the rest of the country experienced below dekadal normal temperature. The highest maximum temperature of 32.8°C was registered on the 24th at Moshoeshoe I and lowest minimum temperature of 3.0°C was recorded Semonkong on the 28th. The temperatures registered throughout the country are above 25°C except Oxbow where the maximum temperature was 23^oC (see table 1). Normally high temperatures are not conducive to crops because they increase the rate of evapotranspiration. As a result wilting of crops is very high due to ripid loss of soil moisture.

VEGETATION



The vegetation index (NOAA NDVI satellite image) for the 3rd dekad of December 2005 depicts that the degree of greenness of the vegetation is low over the lowlands and some parts of the Senqu river valley. It is very low in Mafeteng district. This very low and low greeness may indicate that the land is bare or the crops are very young. The eastern parts of the highlands show high degree of greeness.

CROP STAGE AND CONDITION

Crops (maize and sorghum) in the southern, western and northern lowlands are at vegetative stage. At some places in the low-lying areas weeding is in progress. Due to the high

temperatures and the low rainfall crops are at risk of rapid moisture loss due to evapotranspiration.

DEKADAL OUTLOOK

1st - 10th January 2005

Generally warm and wet weather conditions are expected to continue almost throughout this period with scattered to isolated rain and thundershowers; during which drop in temperatures is expected.

Table	1
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Rainfall and Temperature Summaries													
Rainfall (mm)									Temperature (°C)				
21			21 - 31 Dec 2005			om Sept 05 : 05		21 - 31 Dec 2005					
STATION	ALT.	Actual	Normal	Rain		ı	%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	9.0	36.3	2	258.7	340.7	-24	9.5 (26)	31.2 (24)	19.8	19.7	0.1	
Leribe	1740	18.3	33.1	2	297.4	290.3	2				20.2	N/A	
Mafeteng	1610	18.8	28.3	3	155.1	253.4	-39	8.2 (26)	31.3 (24)	19.7	20.3	-0.6	
Maseru Airport	1530	31.5	29.5	2	182.8	263.2	-31	12.4 (26)	32.7 (24)	21.8	21.2	0.6	
									31.0 (23,				
Mohale's hoek	1600	11.0	30.5	1	174.3	271.1	-36	10.0 (26)	24)	20.3	20.8	-0.5	
Mokhotlong	2200	10.9	31.9	4	300.6	259.7	16	7.6 (23)	28.8 (24)	18.2	17.1	1.1	
Moshoeshoe I	1628	18.1	41.6	2	269.5	289.7	-7	10.7 (23)	32.8 (24)	21.1	20.7	0.4	
Ox-Bow	2600	5.2	56.4	4	369.2	514.9	-28		23.0 (22)	9.6	11.9	-2.3	
Phuthiatsana	1750	12.6	23.5	2	212.4	301.6	-30	10.8 (26)	32.5 (24)	21.2	21	0.1	
Qacha's Nek	1970	22.5	40.3	3	239.2	312.1	-23	7.4 (26)	28.7 (24)	17.8	18	-0.2	
Quthing	1740	8.4	38.9	2	257.9	309.2	-17	11.0 (26)	30.5 (24)	20.7	20.4	0.3	
Semonkong	2458	16.5	30.4	4	242.8	267.4	-9	3.0 (28)	26.0 (24)	15.2	15.6	-0.4	
ThabaTseka	2160		34.2			263.1					16.7	N/A	

Fig.1

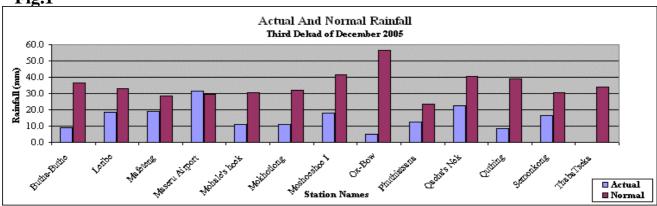
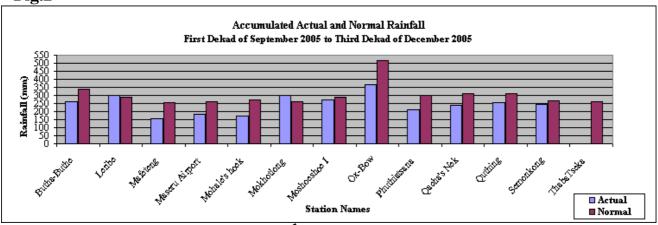


Fig.2



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.