

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

1 – 10 March 2008



Issue No.16/2007-08

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

Contents

Weather Summary
Page 1

Rainfall Situation
Page 1

Temperature
Page 1

Crop Stage and Condition
Page 1

Dekadal Outlook
Page 2

Rainfall and Temperature
Summaries
Page 3

Glossary
Page 4

Highlights

- ❑ Dry conditions still persisted during the first dekad of March.
- ❑ Cumulative rainfall continuing to decrease.
- ❑ Signs of water stress is evident on some of the crops.
- ❑ Warm conditions with scattered rain expected.

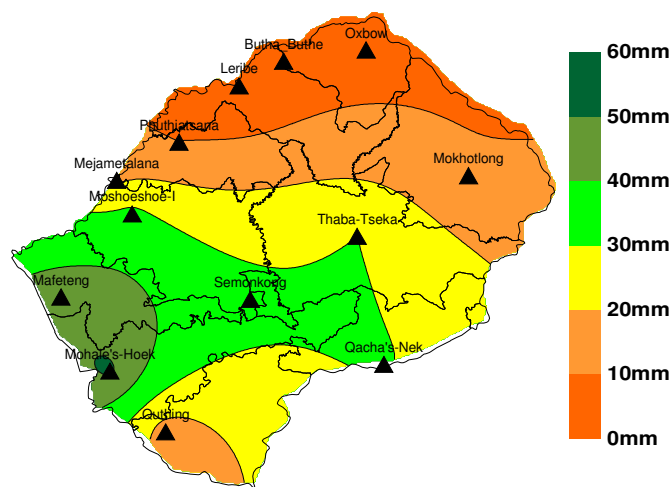
Lesotho Meteorological Services
Agrometeorological Section
P.O. Box 14515
Maseru 100, Lesotho

TEL: (+266) 22324374
FAX: (+266) 22325057/22350325
E-mail: agrometeorology@lesmet.org.ls
<http://www.lesmet.org.ls>

WEATHER SUMMARY

Scattered and significant falls were observed on the 5th especially in the southern parts due to influx of moist tropical air from the north coupled with low-level convergence and advection of moisture from the east by the Indian Ocean Anticyclone. Frequent intrusion and passage of weak cold fronts in the southern parts of the sub-region and interior trough remained shallow, inactive and confined to the west. Tropical cyclone ‘Jokwe’ developed over the Mozambique channel on Friday the 7th and its impact was to reduce rainfall activities in the southern interior of the subcontinent including our area.

RAINFALL SITUATION



Map 1: March 2008, 1st dekad Rainfall

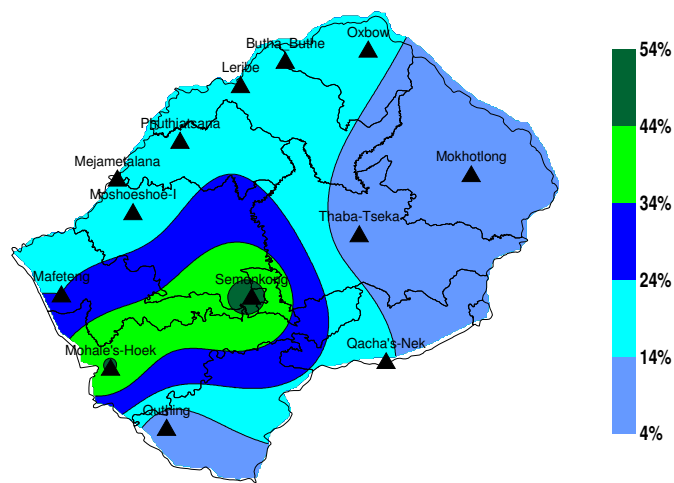
The country continued to experience dry conditions, which were observed for almost a period of five consecutive dekads in most regions of the country. However, the situation improved slightly on the 5th where some central and southern parts of the country received significant rainfall with Mohale’s Hoek and Mafeteng recording highest daily rainfall of 42mm and 41mm respectively. Light rainfalls continued to occur during the second half of the dekad. Rainfall distribution also improved as the rain days ranged from 3 to 8 days over most

places but it was very poor over Leribe and Butha-Buthe because both had only one rain day.

Cumulative Rainfall Percentage Departure From Normal Since September 2007.

Cumulative rainfall since September 2007 ending first dekad of March 2008 remains slightly above normal countrywide. However, rainfall departure from normal is continuously decreasing mostly over the eastern parts of the country and this indicates that this area is still receiving significantly low rainfall (Map 2). Dry spells can have a serious negative impact to crops since they are at their critical stage.

Map 2 depicts that most of the eastern parts of the country have the lowest rainfall percentage departure from normal. This indicates that these places have been drier as compared to the rest of the country.



Map 2: Rainfall % Dep. from Normal (Sept07-Mar 1st Dek 08)

TEMPERATURE

Mean temperatures continued to be warmer than normal during the first dekad of March 2008. High dekadal mean temperature deviations, which were experienced during the dekad under review continued to enhance high evapotranspiration, which resulted in great loss of soil moisture that caused water stress to some crops.

CROP STAGE AND CONDITIONS

Maize and sorghum crop are still at flowering to grain filling stages and in good conditions. However, some crops are already showing the signs of water stress due to dry conditions and high temperatures that are still persisting.

Normal dates for the onset of frost in the highlands is in March although the dates can differ from place to place. If frost can indeed occur in March, most of the crops will not have fully matured and the damage can be huge,

especially as they are already showing signs of withering.

DEKADAL OUTLOOK

11– 21 March 2008

The coming ten days are expected to continue receiving isolated to scattered rain showers and thundershowers. However scattered to widespread rain showers and thundershowers are likely on Saturday 15th. Temperatures are expected to remain relatively cool throughout the period.

Table 1

		Rainfall and Temperature Summaries											
		Rainfall (mm)					Temperature (°C)						
		1 - 10 Mar 2008			Total From Sept07 to 1st Dek Mar 08		1 - 10 Mar 2008						
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	3.5	41.3	1	759.6	629.0	21	11.8 (8)	28.5 (2)	19.9	18.7	1.2	
Leribe	1740	0.8	32.7	1	682.8	551.7	24	10.6 (8)	29.8 (2)	20.1	19.1	1.0	
Mafeteng	1610	44.2	39.1	4	618.0	499.2	24	12.5 (8)	31.5 (2)	20.8	18.8	2.0	
Maseru Airport	1530	19.0	34.6	3	597.5	502.3	19	12.3 (8)	30.5 (4)	21.2	20.0	1.2	
Mohale's hoek	1600	51.3	36.4	5	765.3	522.8	46	13.0 (8, 10)	30.0 (4)	20.7	19.6	1.1	
Mokhotlong	2200	12.1	32.5	5	526.9	487.7	8	6.7 (3)	27.3 (3)	17.1	16.5	0.6	
Moshoeshoe I	1628	32.6	39.0	3	645.3	561.2	15	12.6 (8)	29.8 (2)	20.7	19.9	0.8	
Phuthiatsana	1750	10.2	30.1	3	680.3	561.0	21	11.6 (10)	31.2 (8)	21.5	19.6	1.9	
Qacha's Nek	1970	30.6	38.5	4	709.4	615.0	15	9.9 (9)	27.9 (3)	18.3	17.3	1.0	
Quthing	1740	15.2	41.8	3	601.8	572.7	5	13.5 (7)	30.5 (4)	21.2	19.4	1.8	
Semonkong	2458	31.9	30.8	4	716.6	481.1	49	6.5 (8)	25.5 (2)	15.3	14.4	0.9	
ThabaTseka	2160	30.0	31.1	8	517.2	490.5	5	8.4 (8)	27.5 (3)	16.8	16.0	0.8	

Fig.3

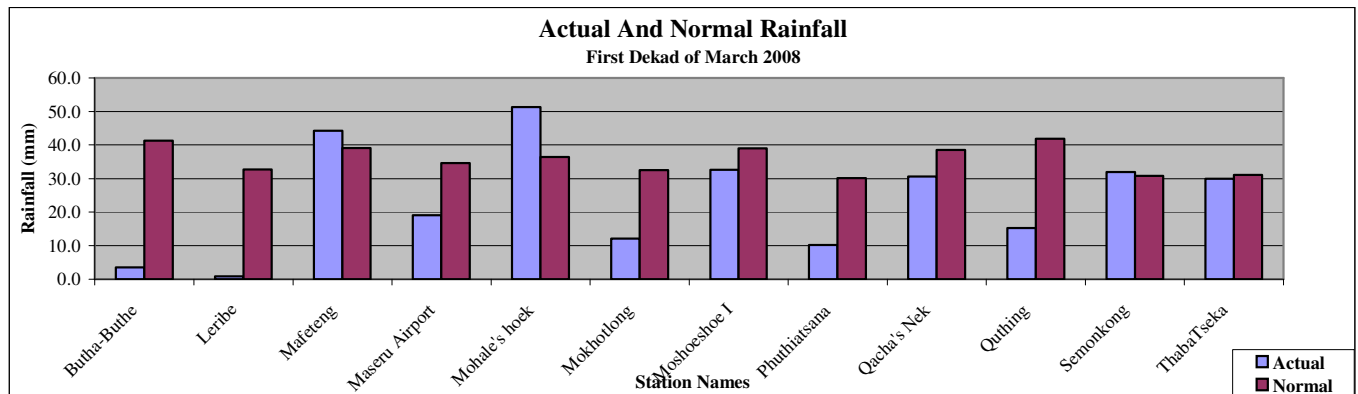
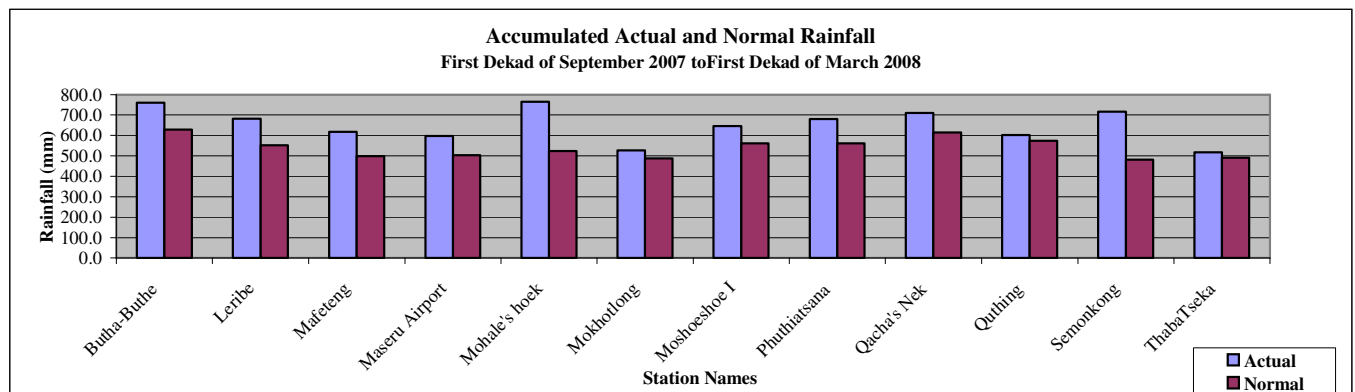


Fig.4



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 – simply implies how good or bad the vegetation is for the specific period.

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

And it is

Produced by the

Lesotho Meteorological Services as a contribution to the

National Early Warning Unit for Food Security.

The Unit is coordinated by the Disaster Management Authority in the

Prime Minister's Office.

Comments and Contributions would be highly appreciated.