

# LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



## Ten-Day Agrometeorological Bulletin

11<sup>th</sup> – 20<sup>th</sup> April 2005



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

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### **Highlights**

- ❑ Normal rains experienced countrywide
- ❑ Cool temperatures experienced
- ❑ Some crops have been destroyed by frost in the high-lying areas
- ❑ Large fraction of the crops have matured
- ❑ Poor rains expected in the next dekad
- ❑ Cool temperatures expected

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**WEATHER SUMMARY**

11<sup>th</sup> – 20<sup>th</sup> April 2005

A frontal system passed over the sub-region on the 1<sup>st</sup> day of the dekad. That resulted in cloudy and cool weather conditions with scattered rains. The Atlantic Ocean high pressure system ridged inland behind the frontal system on the 2<sup>nd</sup> day and formed a separate cell of high pressure system over the interior. This cell dominated up to the 14<sup>th</sup> resulting in fine and mild conditions. On the 15<sup>th</sup>, a surface trough developed over the interior and dominated up to the 18<sup>th</sup>. Generally, partly cloudy and mild weather conditions with isolated rains occurred. The surface trough strengthened on the 19<sup>th</sup> and was supported in the upper levels by an upper air trough. The combination of that surface trough with the frontal system that traversed on the 19<sup>th</sup> resulted in widespread thundershowers.

**RAINFALL SITUATION**

11<sup>th</sup> – 20<sup>th</sup> April 2005

The second dekad of April experienced normal to above normal dekad rainfall. The highest dekad rainfall was recorded at Moshoeshoe 1 with 54.7mm, Mafeteng with 46.3mm and Thaba-Tseka with 36.6mm. The lowest dekad rainfall was measured at Semonkong and Mokhotlong with 10.7mm and 13.9mm respectively (see table 1, fig 3).

The temporal distribution of the rainfall during the dekad was poor as only three to four rainy days were observed. It is observed that 60% to 96% of the dekad rainfall came on the 19<sup>th</sup>. The only exceptions are Semonkong and Quthing where 37% and 39% of their dekad rainfall was experienced on the 19<sup>th</sup>.

**Cumulative rainfall**

The cumulative rainfall since the first dekad of September 2004 to second dekad of April 2005 is normal in most parts of the country. The regions that have low actual accumulated rainfall are Mafeteng and Quthing as they are experiencing accumulated rainfall deficits of 15.5% and 20.2% respectively. Leribe, Moshoeshoe 1 and Qacha's

Nek have the accumulated rainfall surplus of 15.2%, 13.5% and 9.3% respectively (see table 1, fig 4).

Fig. 1 is the map that shows the cumulative rainfall percentage departure from normal. The western parts of Mafeteng and the southern tip of Quthing have shown persistent accumulated rainfall deficits since November 2004.

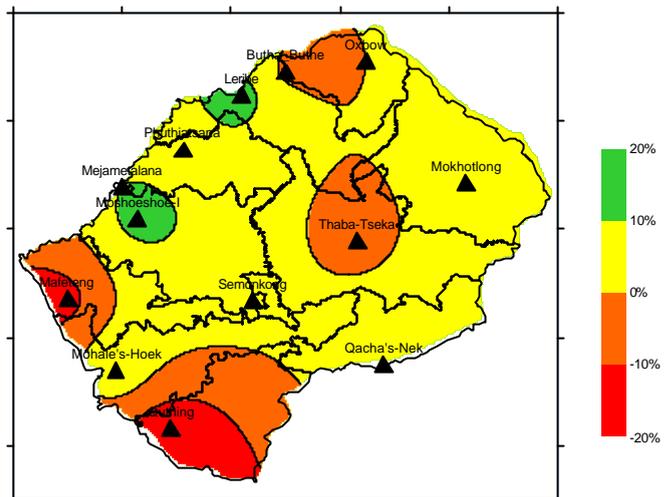


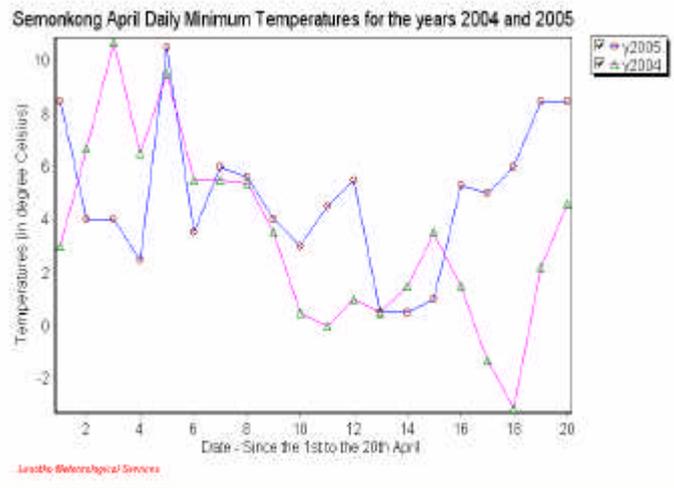
Fig.1: Cumulative rainfall percentage departure from normal since 1<sup>st</sup> September 2004 to 20<sup>th</sup> April 2005

**TEMPERATURE**

11<sup>th</sup> – 20<sup>th</sup> April 2005

Temperatures were generally cool in most days of the dekad under review. The comparison of minimum daily temperatures for the first two dekads of April in the years 2004 and 2005, shows that the present April has been warmer than the same period last year (see fig 1). It for this reason that frost onset has been delayed.

Fig. 2



The warmest day of the dekad was the 18<sup>th</sup> and the coolest days have been the 13<sup>th</sup> and the 14<sup>th</sup> as is reflected on the Table 1 below. The second dekad of April has experienced temperature deviations ranging from near normal to above normal.

### **CROP STAGE AND CONDITION**

11<sup>th</sup> – 20<sup>th</sup> April 2005

Some parts of the high-lying areas have experienced minimum temperatures that are decisive to frost occurrence. Most parts of the high-lying areas have experienced frost attack, however, it is reported that the frost has not been severe in some places of Thaba-Tseka and Qacha's Nek.

Large fraction of the cereal crops (maize, sorghum) have matured in most parts of the country. Nevertheless, there are few crops that have not matured in the Senqu River Valley and

the high-lying areas, some of which (crops in the high-lying areas) have been destroyed by the frost.

On the other hand, the crops in the low-lying areas and some parts of the Senqu River Valley have until the second week of May to mature unless the early frost is experienced in these areas.

### **DEKADAL OUTLOOK**

21<sup>st</sup> – 30<sup>th</sup> April 2005

The last dekad of April is anticipated to be generally drier than the previous dekad. It will be generally dominated by high pressure systems, however, during the first half of the dekad a shallow surface trough is expected to develop over the interior on the 23<sup>rd</sup> and a frontal system is also expected to pass over the southern coast on the same day. As a result, cold and cloudy weather conditions with isolated rains can be expected during the first half of the dekad.

Table

Rainfall and Temperature Summaries												
		Rainfall (mm)						Temperature (°C)				
				Total From Sept to nd Dek Apr		- April						
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		.	.		.	.	- .	. ( )	. ( )	.	.	.
Leribe		.	.		.	.	.	. ( )	. ( )	.	.	.
Mafeteng		.	.		.	.	- .	. ( )	. ( )	.	.	- .
Maseru Airport		.	.		.	.	.	. ( )	. ( )	.	.	.
Mohale's hoek		.	.		.	.	.	. ( )	. ( )	.	.	.
Mokhotlong		.	.		.	.	.	. ( )	. ( )	.	.	.
Moshoeshoe I		.	.		.	.	.	. ( )	. ( )	.	.	.
Phuthiatsana		.	.		.	.	.	. ( )	. ( )	.	.	.
Qacha's Nek		.	.		.	.	.	. ( )	. ( )	.	.	.
Quthing		.	.		.	.	- .	. ( )	. ( )	.	.	.
Semonkong		.	.		.	.	.	. ( , )	. ( )	.	.	.
Thaba-Tseka		.	.		.	.	- .	. ( )	. ( )	.	.	.

Fig.

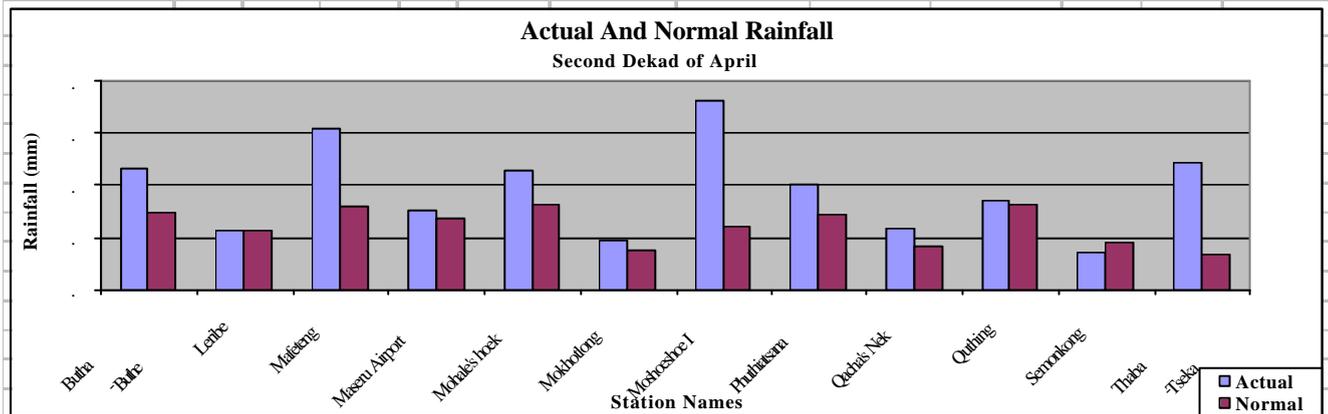
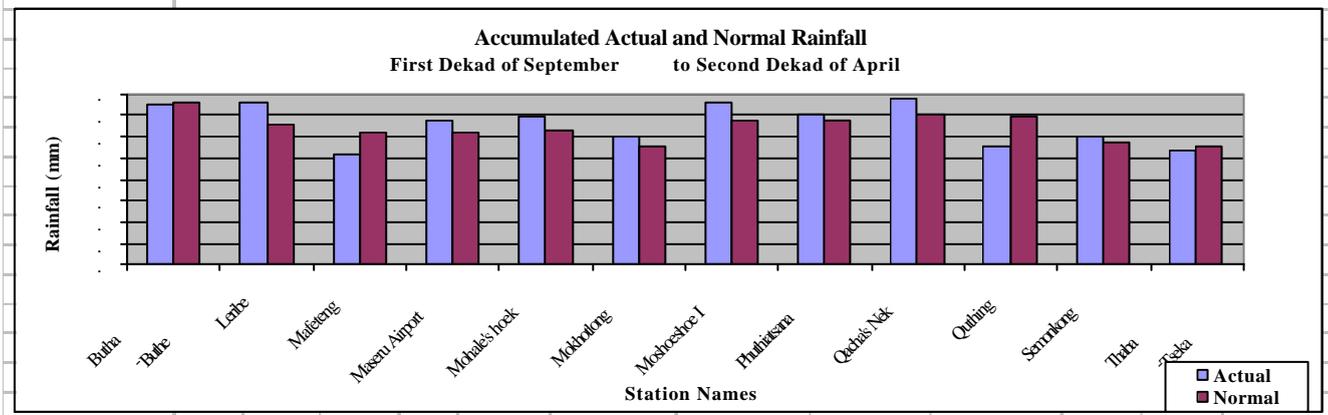


Fig.



## **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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**Prime Minister's Office.**

**Comments and Contributions would be highly appreciated.**