

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

21st – 28th February 2007



Issue No.15/2006-07

Vol.4

*...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.
- ❑ Very hot weather conditions occurred.
- ❑ Crops in danger of collapsing

Next Dekad Preview

- ❑ Hot temperatures expected.
- ❑ Relatively moist conditions expected.

The Director
Lesotho Meteorological Services
Agrometeorological Section
mail:agrometeorology@lesmet.org.ls
P.O. Box 14515

TEL: (+266) 22324374
FAX: (+266) 22325057/22350325
E-

<http://www.lesmet.org.ls>

WEATHER SUMMARY

21st – 28th February 2007

Hot and dry weather conditions prevailed in the last dekad as the rain bearing systems continued to be diffused and thus became less active over the interior of the subcontinent. Interior Trough remained shallow and there was no moisture influx into the subcontinent. Cyclone Gamede further denied the subcontinent moisture that could have otherwise brought some rain over the country.

RAINFALL SITUATION

The last dekad of February became one of the driest dekads of the season. It also follows a series dry dekads in most parts of the country since January 2007. It was also similar to its preceding dekad where actual decadal rainfall was below 10mm in most parts of the country. Thaba-Tseka and Mokhotlong were the only areas that received above 20mm of decadal rainfall (see table 1 & fig 3).

The entire lowlands were dry and the regions in the west did not even experience a drop of rainfall. The decadal rainfall received was also far from satisfying water requirements of crops, which are presently at water demanding stages.

The month of February became the driest month of the season.

Departure from normal of Cumulative Rainfall map

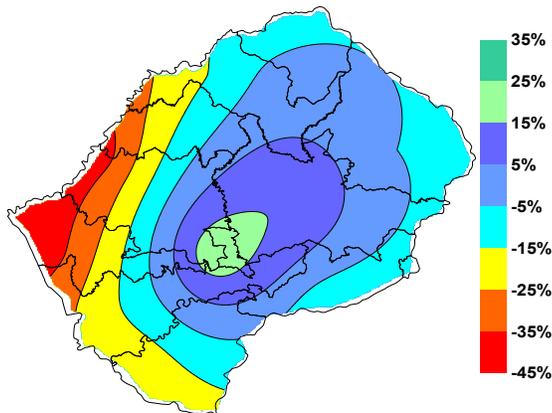


Fig.1: Cumulative rainfall departure from normal since 1st September 2006 to 28th February 2007.

Percentage departure from normal, of cumulative rainfall, continues to decrease. Thaba-Tseka and Semonkong are the only parts of the country with above normal cumulative rainfall. Otherwise, the western and southern lowlands are having huge deficits in cumulative rainfall (see fig 1 & table 1).

For Quthing and Mohale's Hoek, the cumulative rainfall since 1st January 2007 is respectively 16% and 14% of the total cumulative rainfall since September 2006, and for the rest of the country, the percentage ranges from approximately 19% to 25%.

TEMPERATURE

The temperatures during the dekad under review were far higher than normal dekadal temperatures. Only Semonkong experienced below normal dekadal mean temperature. The deviation of mean dekadal temperature from normal was highest at Quthing with 7.0°C.

The highest daily maximum of 35°C was recorded at Mohale's Hoek on the 25th. The high temperatures put enormous pressure on the crops and water resources

CROP STAGE AND CONDITION

Dekads of the month of February 2007 experienced very low rainfall, which were far below normal. The temperatures were high in all dekads of the month and promoted high rates of evapotranspiration when there was very little moisture available.

Crops in the entire country have been subjected to drought and heat stress since January 2007 and as such that has caused large fraction of the crops to abort substantial numbers of developing kernels after pollination. Most crops in the southern lowlands and Senqu valley could not develop further than vegetative stages.

The highlands are approaching frost dates (onset in March). Due to drought conditions since January, yields are expected to be reduced throughout the country.

DEKADAL OUTLOOK

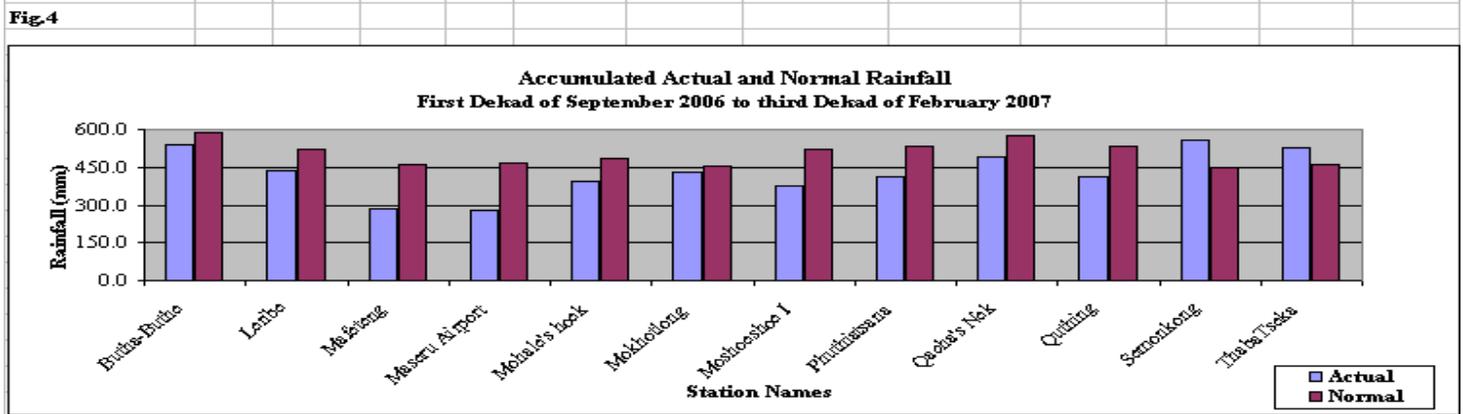
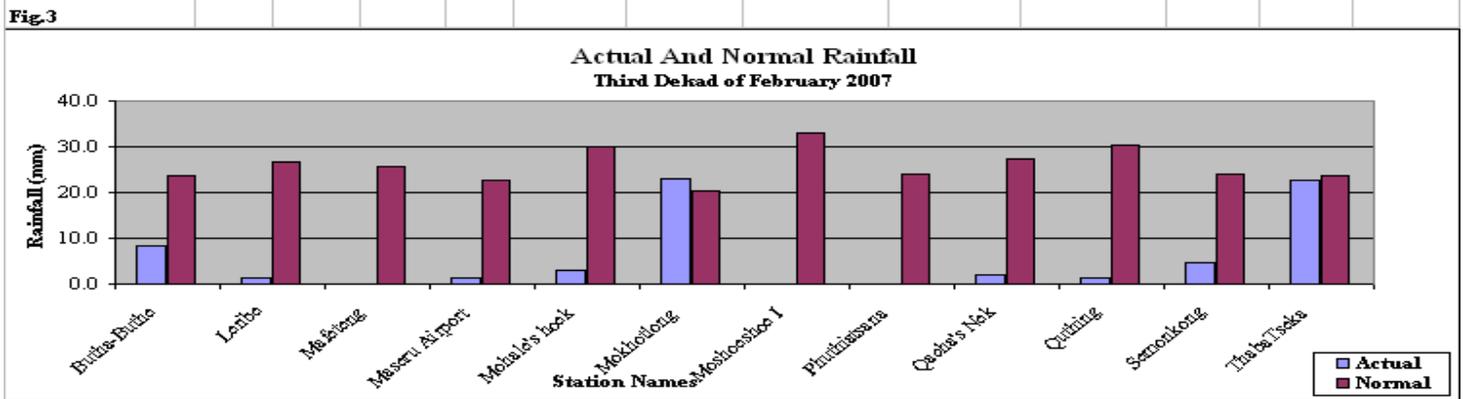
1st - 10th March 2007

The first few days of the dekad are expected to be relatively moist, and isolated to scattered

thundershowers mainly in the southern parts of the country can be expected. Otherwise, the period is expected to be generally partly cloudy and hot.

Table 1

Rainfall and Temperature Summaries												
STATION	ALT. (M)	Rainfall (mm)						Temperature (°C)				
		21 - 28 Feb 2007			Total From Sept06 to 3rd Dek Feb 07			21 - 28 Feb 2007				
		Actual	Normal	Rain Days	Actual	Normal	%Dept. from Normal	Minimum Lowest(Day)	Maximum Highest (Day)	Dekadal Mean	Dekadal Normal	Deviation
NAME	(M)	R/Fall	R/Fall	Days	Actual	Normal	Normal	Lowest(Day)	Highest (Day)	Mean	Normal	Deviation
Butha-Buthe	1770	8.2	23.7	1	541.3	587.7	-8	13.0 (27)	32.2 (22)	22.6	17.8	4.8
Leribe	1740	1.2	26.7	1	436.2	519	-16	12.5 (27)	32.6 (25)	23.0	19.8	3.2
Mafeteng	1610	0.0	25.6	0	283.1	480.1	-38	12.5 (28)	33.5 (25)	23.5	19.8	3.7
Maseru Airport	1530	1.3	22.7	2	276.4	487.7	-41	14.5 (27)	34.7 (22)	24.6	20.7	3.9
Mohale's hoek	1600	3.0	30.1	1	393.4	486.4	-19	13.5 (23)	35.0 (25)	24.4	20.2	4.2
Mokhotlong	2200	23.0	20.5	6	432.4	455.2	-5	8.5 (24)	29.1 (24)	19.1	17.0	2.1
Moshoeshoe I	1628	0.0	33.1	0	373.4	522.2	-28	14.0 (27)	34.0 (25)	24.2	20.1	4.1
Phuthiatsana	1750	0.0	24	0	410.2	530.9	-23	13.4 (21)	33.3 (24)	24.0	20.2	3.8
Qacha's Nek	1970	1.9	27.4	1	493.1	576.5	-14	11.9 (26)	30.5 (21)	21.4	17.5	1.2
Quthing	1740	1.5	30.2	1	409.9	530.9	-23	16.4 (26)	33.5 (25)	24.5	20.0	7.0
Semonkong	2458	4.6	23.9	1	554.7	450.3	23	5.8 (27)	28.5 (22)	18.2	15.1	-1.8
ThabaTseka	2160	22.8	23.6	5	526.2	459.4	15	10.2 (24)	29.0 (22)	19.4	16.6	4.3



Glossary

Dekad: Ten-Day period

Normal: Average figure over a specific time period.

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

Isolated Thundershowers: Thundershowers at few places

Scattered Thundershowers: Thundershowers at many places

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.