# LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



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**Ten-Day Agrometeorological Bulletin** 

11<sup>th</sup> – 20<sup>th</sup> February 2006



Vol.4

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



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#### WEATHER SUMMARY

The previous dekad was one of the wettest dekads since the summer rains resumed. This was due o the deepening of the trough which has been oscillating over the sub-region since January 2006. It drew lot of moisture from the tropics into the region. As a result, it rained continuously almost every day during this period. Apart from these conditions (stratiform) rains which were still occurring throughout the day on the 8<sup>th</sup>, thundershowers also occurred in the evening. As a result, large amounts of rain were recorded on the 8<sup>th</sup>, with Moshoeshoe I recording highest of 78.9mm in 24 hours.

## **RAINFALL SITUATION**

Above normal dekadal rainfall was received throught the country. The highest rainfall was registered in the highlands with Oxbow registering 74.7mm followed by Moshoeshoe I and Phuthiatsana with 67.1mm and 63.6mm respectively. Due to the high rainfall amounts, waterlogging has been experienced in most parts of the country and this has a negative impact on crops.

# Cumulative percentage rainfall departure from Normal



Fig.1: Cumulative rainfall departure from normal since 1<sup>st</sup> Sept to 2<sup>nd</sup> dek.Feb 06.

Cumulative percentage rainfall departure from normal plot in fig.1 shows that most parts of the country have received normal to above normal rainfall. Even figure 4 proves the point that, the cummulative rains received during this dekad are far above the normal cummulative rainfall in most parts of the country.

#### **TEMPERATURE**

Above normal temperatures were experienced throughout the country. This is depicted by the positive temperature deviations (see Table 1 under temperature). The temperatures were favourable to crop development as they did not allow for rapid soil moisture loss through evapotranspiration.

## **CROP STAGE AND CONDITION**

Weeding in the Lowlands is in progress and it is reported that most crops are at tassling and flowering stages. Winter wheat is now at the maturity stage in highlands; only few fields are planted. Farmers are in full force removing weeds from the fields, since the rains and the floods experienced recently gave them no chance to do anything in their fields. The pastures have also improved a lot due good rains received during these two months (January and February).

## **VEGETATION CONDITION**



Fig.2: Normalized Difference Vegetation Index(NDVI) Image for 2<sup>nd</sup> Dekad of February 2006.

The dekad under discussion was dominated by medium to high vegetation cover with some patches of low vegetation (see fig.2 above). The

improvement in vegetation cover might be due to the excess rains received over the last three dekads. However, as a result of the high rainfall experienced, so some crops have been destroyed and some fields have been washed away by flash floods.

## **DEKADAL OUTLOOK**

#### 21<sup>st</sup> - 28<sup>th</sup> February 2006

The trough is expected to weaken but continue oscillating over the sub-region. As a result, rains are anticipated to decrease slightly but they will continue throughout this forecast period. Due to the fact that soil is almost saturated, any small amounts of rains are likely to cause flooding and water logging. Temperatures will be generally warm.

Ŧ	11 - 20 H		Rainf	Rain	fall and Te	mperature									
T	11 - 20 I		Rainf	all (mm)											
Т	11 - 20 H			Rainfall (mm)							Temperature (°C)				
T		11 - 20 Feb 2006			Total From Sept 05 to 2nd Dek Feb 06			11 - 20 Feb 2006							
.1.	Actual	Rain	Normal			%Dept. from	Minimum	Maximum	Dekadal	Dekadal					
M)	R/Fall	Days	R/Fall	Actual	Normal	Normal	Lowest(Day)	Highest (Day)	Mean	Normal	Deviation				
70	70.2	3	42.3	649.1	564.0	15	14.0 (20)	28.0 (15)	20.7	19.4	1.3				
40	61.0	4	42.3		492.3		14.5 (20)	28.4 (15)	21.0	19.8	1.2				
510	51.2	5	38.6	422.8	434.5	-3		28.1 (17)		20.0					
30	59.0	5	36.1	639.1	445.0	44	15.5 (13)	29.3 (17)	21.8	20.8	1.0				
500	55.7	7	38.4	504.1	456.3	10	13.5 (14)	28.5 (15)	20.8	20.6	0.2				
200	53.1	7	30.4	546.4	434.7	26	10.6 (20)	26.1 (14)	18.0	16.9	1.1				
528	67.1	6	40.5	696.9	489.1	42	11.5 (12)	28.5 (15)	20.3	20.1	0.2				
600	74.7	6	49.2	886.6	803.3	10	6.0 (20)	20.2 (17)	14.0	12.1	1.9				
'50	63.6	2	34.0	645.0	506.9	27	15.1(13)	29.5 (17)	21.6	20.4	1.2				
970	29.7	6	42.1	532.4	549.1	-3	13.7 (14)	27.6 (18)	20.0	17.4	2.6				
40	57.7	5	38.3	597.0	500.7	19	14.7 (14)	28.7 (15)	20.6	20.2	0.4				
58	39.6	8	25.4	545.8	426.4	28	9.5 (14)	23.7 (15)	16.5	15.1	1.4				
60	50.4	6	32.2	445.7	435.8	2	12.0 (17)	24.6 (15)	17.3	16.4	0.9				
	T.   10   70   40   10   30   00   28   00   50   70   40   50	Actual     R/Fall     70   70.2     40   61.0     10   51.2     30   59.0     00   55.7     00   53.1     28   67.1     00   74.7     50   63.6     70   29.7     40   57.7     58   39.6     60   50.4	Actual   Rain     I)   R/Fall   Days     70   70.2   3     40   61.0   4     10   51.2   5     30   59.0   5     00   55.7   7     00   53.1   7     28   67.1   6     00   74.7   6     50   63.6   2     70   29.7   6     40   57.7   5     58   39.6   8     60   50.4   6	T.ActualRainNormalI) $R/Fall$ Days $R/Fall$ 70 $70.2$ 3 $42.3$ 40 $61.0$ 4 $42.3$ 10 $51.2$ 5 $38.6$ 30 $59.0$ 5 $36.1$ 00 $55.7$ 7 $38.4$ 00 $53.1$ 7 $30.4$ 28 $67.1$ 6 $49.2$ 50 $63.6$ 2 $34.0$ 70 $29.7$ 6 $42.1$ 40 $57.7$ 5 $38.3$ 58 $39.6$ 8 $25.4$ 60 $50.4$ 6 $32.2$	Actual   Rain   Normal     I)   R/Fall   Days   R/Fall   Actual     70   70.2   3   42.3   649.1     40   61.0   4   42.3   649.1     40   61.0   4   42.3   649.1     10   51.2   5   38.6   422.8     30   59.0   5   36.1   639.1     00   55.7   7   38.4   504.1     00   53.1   7   30.4   546.4     28   67.1   6   40.5   696.9     00   74.7   6   49.2   886.6     50   63.6   2   34.0   645.0     70   29.7   6   42.1   532.4     40   57.7   5   38.3   597.0     58   39.6   8   25.4   545.8     60   50.4   6   32.2   445.7	T.ActualRainNormalI)R/FallDaysR/FallActualNormal70 $70.2$ 3 $42.3$ $649.1$ $564.0$ 40 $61.0$ 4 $42.3$ $492.3$ 10 $51.2$ 5 $38.6$ $422.8$ $434.5$ 30 $59.0$ 5 $36.1$ $639.1$ $445.0$ 00 $55.7$ 7 $38.4$ $504.1$ $456.3$ 00 $53.1$ 7 $30.4$ $546.4$ $434.7$ 28 $67.1$ 6 $49.2$ $886.6$ $803.3$ 50 $63.6$ 2 $34.0$ $645.0$ $506.9$ 70 $29.7$ 6 $42.1$ $532.4$ $549.1$ 40 $57.7$ 5 $38.3$ $597.0$ $500.7$ 58 $39.6$ 8 $25.4$ $545.8$ $426.4$ $60$ $50.4$ 6 $32.2$ $445.7$ $435.8$	T.ActualRainNormal%Dept. fromI)R/FallDaysR/FallActualNormalNormal7070.2342.3649.1564.0154061.0442.3492.3101051.2538.6422.8434.5-33059.0536.1639.1445.0440055.7738.4504.1456.3100053.1730.4546.4434.7262867.1640.5696.9489.1420074.7649.2886.6803.3105063.6234.0645.0506.9277029.7642.1532.4549.1-34057.7538.3597.0500.7195839.6825.4545.8426.4286050.4632.2445.7435.82	T.ActualRainNormal%Dept. fromMinimum1) $R/Fall$ Days $R/Fall$ ActualNormalNormalLowest(Day)7070.2342.3649.1564.01514.0 (20)4061.0442.3492.314.5 (20)1051.2538.6422.8434.5-33059.0536.1639.1445.04415.5 (13)0055.7738.4504.1456.31013.5 (14)0053.1730.4546.4434.72610.6 (20)2867.1640.5696.9489.14211.5 (12)0074.7649.2886.6803.3106.0 (20)5063.6234.0645.0506.92715.1(13)7029.7642.1532.4549.1-313.7 (14)4057.7538.3597.0500.71914.7 (14)5839.6825.4545.8426.4289.5 (14)6050.4632.2445.7435.8212.0 (17)	T.ActualRainNormal%Dept. fromMinimumMaximum1) $R/Fall$ Days $R/Fall$ ActualNormalNormalLowest(Day)Highest (Day)7070.2342.3649.1564.01514.0 (20)28.0 (15)4061.0442.3492.314.5 (20)28.4 (15)1051.2538.6422.8434.5-328.1 (17)3059.0536.1639.1445.04415.5 (13)29.3 (17)0055.7738.4504.1456.31013.5 (14)28.5 (15)0053.1730.4546.4434.72610.6 (20)26.1 (14)2867.1640.5696.9489.14211.5 (12)28.5 (15)0074.7649.2886.6803.3106.0 (20)20.2 (17)5063.6234.0645.0506.92715.1(13)29.5 (17)7029.7642.1532.4549.1-313.7 (14)27.6 (18)4057.7538.3597.0500.71914.7 (14)28.7 (15)5839.6825.4545.8426.4289.5 (14)23.7 (15)6050.4632.2445.7435.8212.0 (17)24.6 (15)	T.ActualRainNormal%Dept. fromMinimumMaximumDekadal1)R/FallDaysR/FallActualNormalNormalLowest(Day)Highest (Day)Mean7070.2342.3649.1564.01514.0 (20)28.0 (15)20.74061.0442.3492.314.5 (20)28.4 (15)21.01051.2538.6422.8434.5-328.1 (17)3059.0536.1639.1445.04415.5 (13)29.3 (17)21.80055.7738.4504.1456.31013.5 (14)28.5 (15)20.80053.1730.4546.4434.72610.6 (20)26.1 (14)18.02867.1640.5696.9489.14211.5 (12)28.5 (15)20.30074.7649.2886.6803.3106.0 (20)20.2 (17)14.05063.6234.0645.0506.92715.1 (13)29.5 (17)21.67029.7642.1532.4549.1-313.7 (14)27.6 (18)20.04057.7538.3597.0500.71914.7 (14)28.7 (15)20.65839.6825.4545.8426.4289.5 (14)23.7 (15)16.56050.4632.2445.7435.	Actual   Rain   Normal   %Dept. from   Minimum   Maximum   Dekadal   Dekadal     N   R/Fall   Days   R/Fall   Actual   Normal   Normal   Lowest(Day)   Highest (Day)   Mean   Normal     70   70.2   3   42.3   649.1   564.0   15   14.0 (20)   28.0 (15)   20.7   19.4     40   61.0   4   42.3   492.3   14.5 (20)   28.1 (17)   20.0   30.5     10   51.2   5   38.6   422.8   434.5   -3   28.1 (17)   21.8   20.0     30   59.0   5   36.1   639.1   445.0   44   15.5 (13)   29.3 (17)   21.8   20.8     00   55.7   7   38.4   504.1   456.3   10   13.5 (14)   28.5 (15)   20.8   20.6     00   53.1   7   30.4   546.4   434.7   26   10.6 (20)   20.1 (14)   18.0   16.9				



Fig.4



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# 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

NDVI: Normalized Difference Vegetation Index

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.