LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



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1st – 10th February 2006



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

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Highlights

- Improved rainfall situation during this period.
- **D** Planting in the Lowlands is in progress.
- **D** Medium to low vegetation cover dominated.
- **D** The temperatures expected be warm.

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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 8th, thundershowers also occurred in the evening. As a result, large amounts of rain were recorded on the 8th, 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 lowlands with Moshoeshoe I in the lowlands registering 144.4mm followed by Maseru Airport and Phuthiatsana with 122.7mm and 114.0mm 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 1st Sept to 1st 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.

TEMPERATURE

Below normal temperatures were experienced throughout the country. This is depicted by the negative 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

The crops and the pastures have improved during this first dekad of February 2006 due to heavy rains received recently. Moreover, the crops are at flowering and early grain filling stages. In the southern highlands wheat is at harvesting stage. Apart from that weeding is progress in the lowlands.

VEGETATION CONDITION



Fig.2: Normalized Difference Vegetation Index(NDVI) Image for 1st Dekad of February 2006.

The dekad under discussion was dominated by medium to low vegetation cover with some patches of very low vegetation (see fig.2 above). The deterioration in vegetation cover might be due to the fact that most fields have been waterlogged 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

11th - 21st 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.

| Rainfall and Temperature Summaries | | | | | | | | | | | | |
|------------------------------------|---------------|-----------------|--------|------|-------------------------------------|---------|------------------|-----------------|---------------|---------|---------|-----------|
| | Rainfall (mm) | | | | | | Temperature (°C) | | | | | |
| | | 1 - 10 Feb 2006 | | | Total From Sept05 to 1st Dek Feb 06 | | | 1 - 10 Feb 2006 | | | | |
| STATION | ALT. | Actual | Normal | Rain | Cumm | ulative | %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 | 72.8 | 42.3 | 7 | 578.9 | 521.7 | 11 | 12.3 (5) | 29.0(1) | 19.2 | 20.0 | -0.8 |
| Mafeteng | 1610 | 97.8 | 38.6 | 5 | 371.6 | 395.9 | -6 | NA | 26.4 (10) | NA | 20.7 | NA |
| Maseru Airport | 1530 | 122.7 | 36.1 | 9 | 580.1 | 408.9 | 42 | 10.5 (7) | 27.5 (1) | 19.6 | 21.4 | -1.8 |
| Mohale's hoek | 1600 | 97.0 | 38.4 | 7 | 448.4 | 417.9 | 7 | 12.5 (1) | 27.4 (5) | 19.4 | 21.2 | -1.9 |
| Mokhotlong | 2200 | 35.6 | 30.4 | 8 | 493.3 | 404.3 | 22 | 8.6 (5) | 24.4 (2) | 17.0 | 17.4 | -0.4 |
| Moshoeshoe I | 1628 | 144.4 | 40.5 | 8 | 629.8 | 448.6 | 40 | 12.9 (4) | 26.8 (5) | 19.1 | 21.3 | -2.2 |
| Ox-Bow | 2600 | 88.6 | 49.2 | 7 | 811.9 | 754.1 | 8 | 3.2 (5) | 19.0 (5) | 12.3 | 12.5 | -0.2 |
| Phuthiatsana | 1750 | 114.0 | 34 | 6 | 581.4 | 472.9 | 23 | 13.0 (4) | 27.8 (5) | 20.1 | 20.6 | -0.5 |
| Qacha's Nek | 1970 | 94.0 | 42.1 | 5 | 502.7 | 507.0 | -1 | 11.4 (4) | 25.8 (6) | 17.9 | 18.2 | -0.3 |
| Quthing | 1740 | 68.4 | 38.3 | 7 | 539.3 | 462.4 | 17 | 10.1 (5) | 27.2 (5) | 19.2 | 20.9 | -1.7 |
| Semonkong | 2458 | 81.9 | 25.4 | 9 | 506.2 | 401.0 | 26 | 7.5 (5) | 22.2 (10) | 15.0 | 16.0 | -1.0 |
| ThabaTseka | 2160 | 38.0 | 32.2 | 6 | 395.3 | 403.6 | -2 | 8.3 (4) | 23.9 (2) | 16.0 | 16.5 | -0.5 |

Table 1





Fig.4



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.