

LESOTHO METEOROLOGICAL SERVICES (LEKALA LA TSA BOLEPI)



Ten-Day Agrometeorological Bulletin

11th – 20th April 2004



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

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Highlights

- Further decrease in rainfall observed over some places.
- Below normal to normal cumulative rainfall reached.
- Significant drop in temperature experienced.
- Crop damage by frost experienced.
- Soil moisture content threatened as a result of dry spells experienced.
- Less rainfall anticipated.

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WEATHER SUMMARY
11st – 20th April 2004

The second dekad of April was mainly dominated by a ridge of high pressure (Indian) cell leading to mostly subsidence during many days. However, there were a few days when shallow surface troughs developed over the central interior resulting in isolated to scattered thundershowers. Temperatures were generally mild during the day and cool at night.

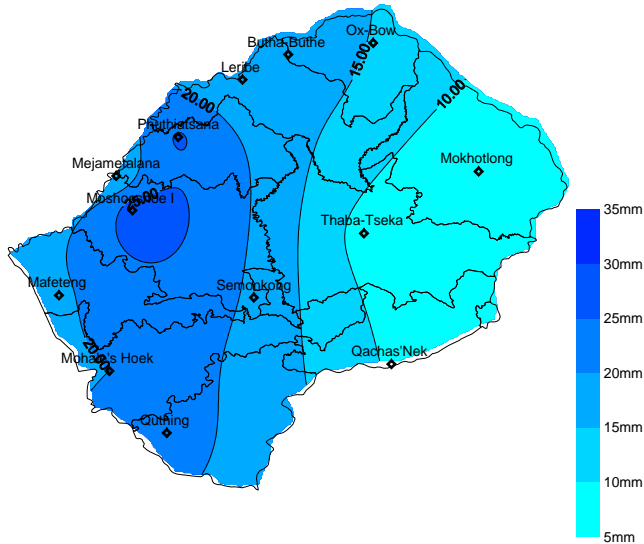


Fig.1: Actual rainfall distribution for the 2nd dekad of April 2004

A further decrease in rainfall was experienced over some areas around the country during the dekad under discussion. Nevertheless, few areas in the southern to western region received relatively fair to good rains, where Moshoeshoe 1 registered 28.5mm, Phuthiatsana 25.7mm, Quthing 22.1mm, Semokong 19.0mm, Butha- Buthe 19.4mm and Mohale's hoek 20.0mm. The remainder of the country received rainfall not exceeding 15.5mm and the least rainfall were registered in Mokhotlong and Thaba-Tseka (see table 1 & fig.3).

CUMULATIVE RAINFALL FROM 1ST SEPT 03 TO 20TH APRIL. 04

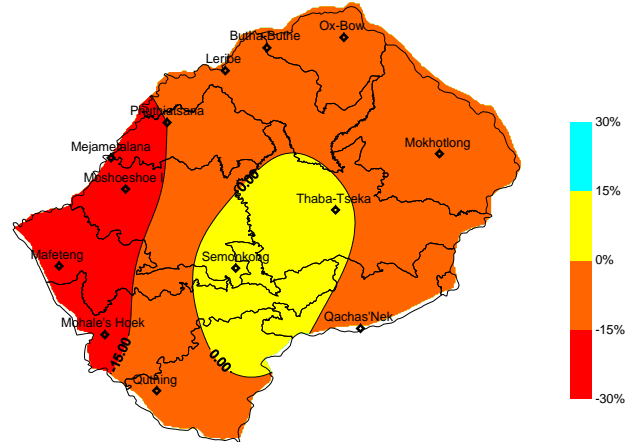


Fig.2: Cumulative rainfall departure from normal since 1stSept 03 to 20th April 2004

Cumulative rainfall since September 03 to 2nd dekad April 04 at some places especially over the south western is still below the expected rainfall (see fig.4). The remainder of the country registered near normal to normal cumulative rains.

Due to decrease in rainfall during the previous two dekads, soil moisture content present is threatened as a result of the dry spells experienced. The percentage rainfall departure from long term mean plot (fig.2) remains similar to that of the previous dekad, which implies no improvement in soil moisture.

TEMPERATURE
11th – 20th April 2004

Day time temperatures were generally normal during the dekad except for a significant drop that occurred on the 17th/18th (see table 1- lowest minimum temperatures). Temperatures at some places plummeted to 2.0°C and below which is the threshold temperature at which frost forms.

As a result, frost was reported at several places including the lowland areas.

CROP STAGE AND CONDITION

11th – 20th April 2004

Due to the drop in temperatures that resulted in frost occurrence at some places, crops (maize, sorghum) were affected in the Thaba-Tseka, Quthing and Semonkong areas especially those that were still at tender stages, else where, crop damage was mainly seen on horticultural crops such as beans and pumpkin. Otherwise, low temperatures experienced do not favour the development of such crops as maize and sorghum, therefore, the late ones are not expected to develop further.

DEKADAL OUTLOOK

21st – 30th April 2004

The Indian Ocean high pressure system is still expected to dominate the eastern parts of the sub-region and frontal systems are also expected to pass more frequently over the southern coast of the Sub-region. As a result light isolated thundershowers are expected during this forecast period. However, this dekad is anticipated to receive less rainfall as compared to the previous dekad. Temperatures are expected to remain the same as in the previous dekad over the lowlands but slightly lower over the highlands where an increase in frost patches is being anticipated.

Table 1

| Rainfall and Temperature Summaries | | | | | | | | | | | | |
|------------------------------------|---------------|---------------|-----------|---------------|--|-------|--------------------------|----------------------|-----------------------|--------------|----------------|-----------|
| | Rainfall (mm) | | | | | | | TEMPERATURE (°C) | | | | |
| | 11 - 20 April | | | | Total From Sept.03 to 2nd Dek April 04 | | | 11 - 20 April | | | | |
| STATION NAME | ALT. (M) | Actual R/Fall | Rain days | Normal R/Fall | Cum. Act. & Nor. R/f | | Cum. % Dept. from Normal | Minimum Lowest (day) | Maximum Highest (day) | Dekadal Mean | Dekadal Normal | Deviation |
| Butha-Buthe | 1770 | 19.4 | 1 | 18.8 | 653.4 | 682.7 | -4 | 2.0(18) | 24.8(19) | 14.0 | 14.6 | -0.6 |
| Leribe | 1740 | 15.1 | 2 | 16.8 | 582.3 | 593.8 | -2 | 1.2(18) | 25.2(19) | 14.2 | 14.4 | -0.2 |
| Mafeteng | 1610 | 19 | 2 | 22.9 | 437.4 | 588.2 | -26 | 1.5(18) | 24.1(19) | 14.1 | 14.4 | -0.3 |
| Maseru Airpor | 1530 | 14.1 | 2 | 23.1 | 454.9 | 591.0 | -23 | 4.3(17) | 26.1(19) | 15.3 | 14.7 | 0.6 |
| Mohaleshoek | 1600 | 20 | 2 | 25.1 | 504.1 | 637.7 | -21 | 2.5(18) | 24.5(19) | 14.4 | 14.9 | -0.5 |
| Mokhotlong | 2200 | 6.6 | 2 | 11.2 | 480.8 | 536.6 | -10 | 0.5(18) | 23.6(14) | 13.0 | 11.6 | 1.4 |
| Moshoeshoe I | 1628 | 28.5 | 2 | 25.1 | 497.8 | 651.8 | -24 | 3.0(18) | 25.0(19) | 14.8 | N/A | N/A |
| Phuthiatsana | 1750 | 25.7 | 3 | 18.5 | 543.8 | 643.1 | -15 | 2.4(18) | 25.6(19) | 14.7 | 14.7 | 0.0 |
| Qacha's Nek | 1970 | 9.4 | 1 | 13.2 | 646.5 | 687.6 | -6 | 4.3(17) | 23.6(19) | 13.8 | 13.9 | -0.1 |
| Semonkong | 2458 | 19 | 2 | 16 | 638.2 | 570.9 | 12 | -3.1(18) | 20.0(15,16) | 9.4 | 10.2 | -0.8 |
| Thaba-Tseka | 2160 | 7.9 | 1 | 9.2 | 525.7 | 515.5 | 2 | N/A | N/A | 11.8 | 11.8 | 0.0 |
| Quthing | 1740 | 22.1 | 3 | 21.3 | 582.6 | 615.3 | -5 | 4.1(18) | 24.1(19) | 14.8 | 13.9 | 0.9 |

Fig.3

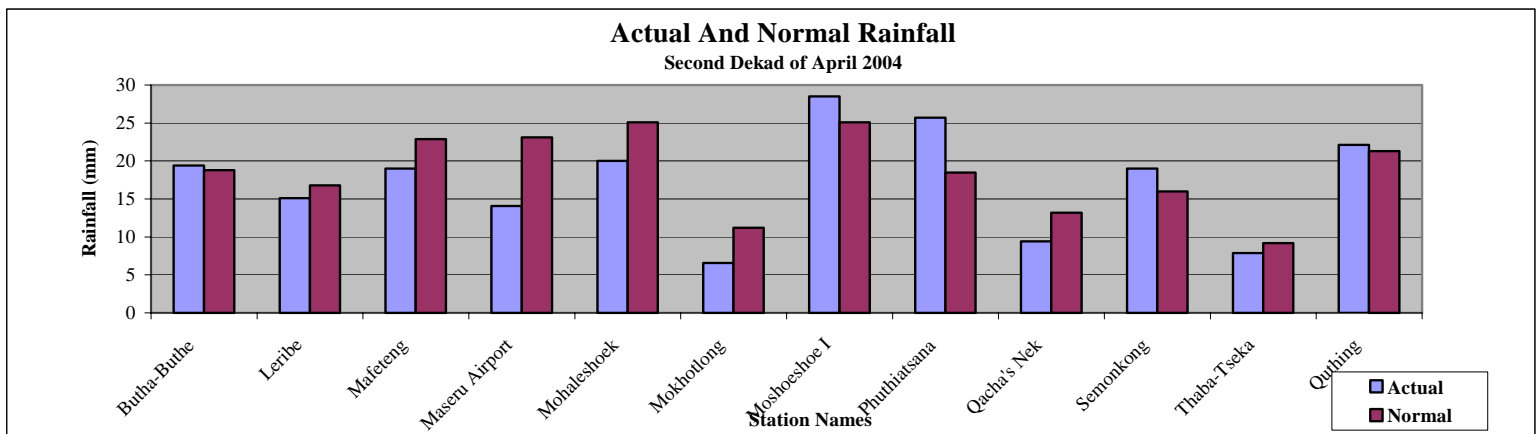
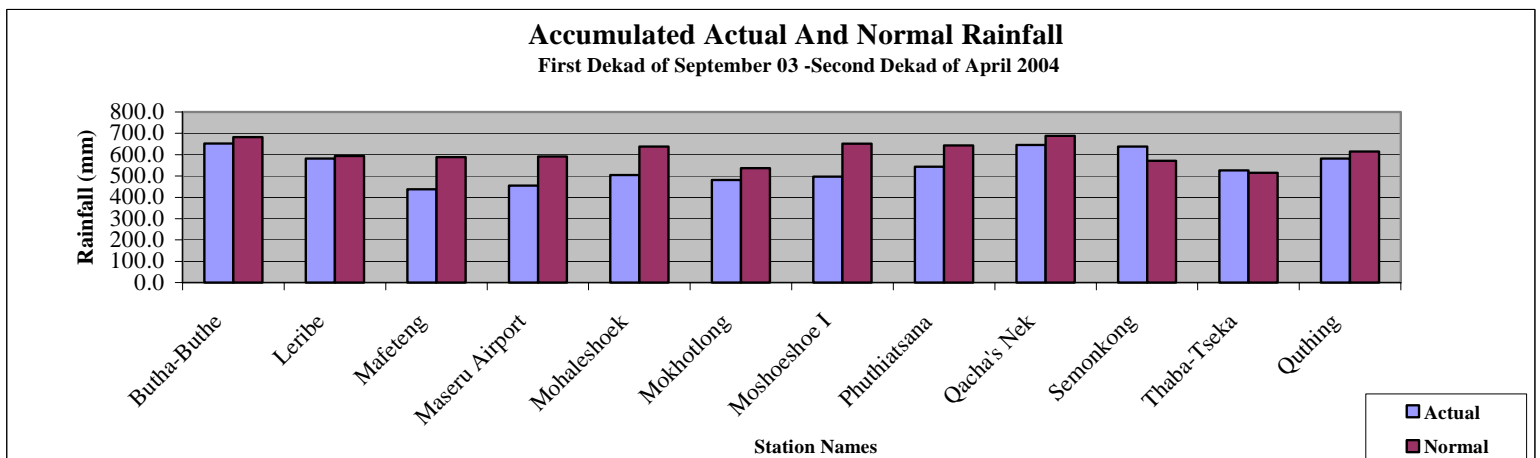


Fig.4



Glossary

Dekad : Ten day period

Normal: Average figure over a specific time period.

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

Cum. Stands for cumulative.

Act. & Nor. R/f stands for Actual and Normal Rainfall

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And it is

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Comments and Contributions would be highly appreciated.