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

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WEATHER SUMMARY 1st - 10th April 2005

The first three days of the previous dekad were dominated by the interior trough. This resulted in cool weather conditions with isolated rains. On the 4^{h} , the Atlantic high pressure system ridged inland and formed a high pressure cell over the interior, this cell remained dominant for the rest of the of the dekad. This caused generally partly cloudy and mild weather conditions without rainfall.

RAINFALL SITUATION 1st – 10th April 2005

The first dekad of April experienced very little rainfall in most parts of the country. Maseru Airport and Moshoeshoe 1 are the only parts that have received above normal dekadal rainfall. Otherwise the remaining areas of the northern lowlands have experienced near normal dekadal rainfall. The southern lowlands and the highlands have had poor dekadal rainfall not exceeding 10mm, the exception is only Semonkong where 16mm were recorded. Mohale's Hoek did not have even a single drop in this dekad. It is important to note that above 95% of the dekadal rainfall occurred on the 1st day of the month (see table 1, fig 3).

Cumulative rainfall

The cumulative rainfall since the first dekad of September 2004 to the third dekad of March 2005 is near normal to above normal in all the parts of the country. The highest accumulated rainfall that exceeds 700mm has so far been recorded at Qacha's Nek, Leribe, Butha-Buthe and Moshoeshoe 1 (see table 1, fig 4). Mafeteng and Thaba-Tseka have accumulated rainfall less than 500mm.

Phuthiatsana has experienced very erratic rainfall since the beginning of the cropping season. The cumulative rainfall has been below normal until dekad 21 of the season (which is the last dekad of March 2005). Refer to *graph 1*. The frequency of dry spells is quite significant. Notable rainfalls have been received during the second dekad of

January 2005 (dekad 14 on the graph), 17th dekad (second dekad of February 2005) and the 20th dekad (second dekad of March 2005).

Graph 1



Moshoeshoe 1 too experienced poor and erratic rainfall since the inception of the season. *Graph 2* below reflects the distribution of the rainfall and the dekads that were dry. The 14th and the 17th dekads of the current season had significant rainfall.



Cumulative rainfall percentage departure from normal map (fig. 1 below) and *table 1* reflect that the western parts of Mafeteng and the southern tip of Quthing have experienced 80% and 79% of their normal cumulative rainfall respectively. This huge rainfall deficits have been experienced in these regions since November 2004.



Fig.1: Cumulative rainfall percentage departure from normal since 1st September 2004 to 10th April 2005

TEMPERATURE

1st - 10th April 2005

Temperatures were generally cool in most days of the dekad under review. Temperatures have started to decrease countrywide. Daily maximum temperatures were below 25° C through-out the dekad while the highlands have had daily minimum temperatures below 10° C in most days of the dekad. The lowest daily minimum temperatures of 3° C and 4.5° C were recorded at Semonkong and Mokhotlong respectively.

The temperature deviations range from above normal value of 0.8° C at Qacha's Nek to the below normal value of -1.1° C at Mafeteng.

CROP STAGE AND CONDITION 1st - 10th April 2005

The cereal crops (maize, sorghum) have matured in most parts of the country. The only places that have reported that crops are yet to mature are some parts of the Senqu River Valley. The crops in the western tip of Mafeteng have experienced erratic rains and they are therefore reported to be in poor conditions. Fig. 2 below reflects that the Senqu River valley is experiencing low vegetation index. The series of the previous images depict that the areas along the boundry of Mohale's Hoek and Qacha's Nek and the areas of the Senqu River Valley in Thaba-Tseka have continuously experienced low vegetation index. The low vegetation index may portray that the crops have always been below the required standard. The crops being of low standard may also be explained by another series of the difference images of the previous dekads with their respective long-term averages.



Fig. 2: NOAA NDVI Satellite Image for the 1st Dekad of April 2005.

DEKADAL OUTLOOK 11th – 20th April 2005

The first half of the second dekad of April is expected to be generally dominated by the high pressure system. As a result, partly cloudy and mild weather conditions will prevail. However, it is anticipated that during the last half of the dekad, the interior trough will develop over the central interior and the frontal system will also traverse on the 17th. The combination of these systems is expected to result in cool conditions and isolated rains.

Temperatures are expected to continue dropping. It is expected that the highlands can experience frost anytime in this dekad. Issue No. 17/2004-05



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

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And it is

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Comments and Contributions would be highly appreciated.