



# FOOD SECURITY EARLY WARNING SYSTEM

## Agromet-Update

### 2006/2007 Agricultural Season



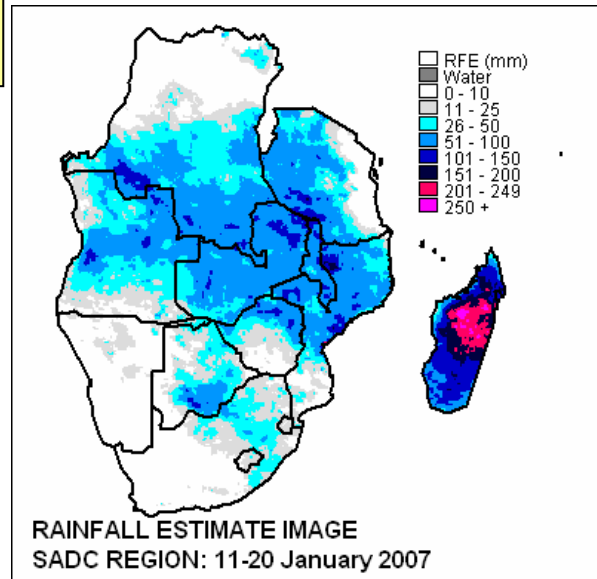
Issue 05 Dekad: 02 Month: January Season: 2006-2007 Release date: 26-01-2007

#### Highlights

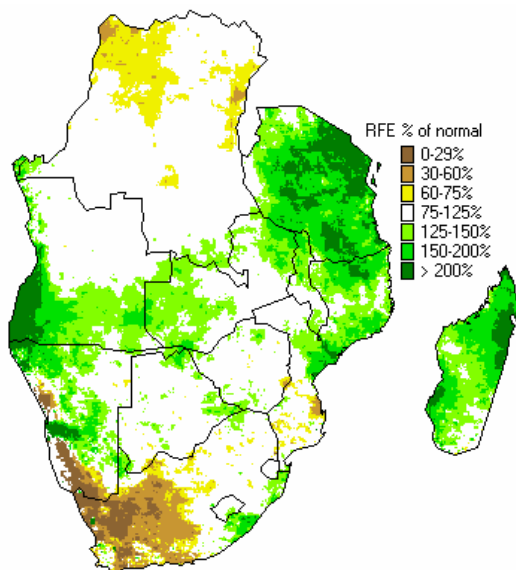
- ❑ Heavy rainfall experienced in Madagascar
- ❑ Continued low rains in southern half of SADC region
- ❑ Flooding reported in Angola, Zambia and Mozambique.

During the second dekad of January, moderate to heavy rainfall was concentrated in the central parts of the region. An analysis of satellite-based rainfall estimates indicates that good rains fell in Angola, southern half of DRC, western Tanzania, central and northern Mozambique and parts of Zambia. (Figure 1). Heavy rains were observed in the entire island of Madagascar with the central parts having experienced amounts of up to 200mm in 10 days. However, the southern parts of the SADC region experienced very low rainfall during the dekad. Areas with low rainfall include the whole of Namibia, most of Botswana, southern half of Zimbabwe and Mozambique, Swaziland and Lesotho. Low rainfall also affected parts of South Africa including the Free State which has the highest planted area of maize this agricultural season. As the season progresses into February, the rains so far have been much better than anticipated in view of the El Nino which is usually associated with depressed rainfall in the SADC region.

**Fig.1. Rainfall Performance for 11 to 20 January 2006**



**Figure 2. Rainfall for 1 Sept 2006 to 20 January 2007 as Percentage of Normal**



**Cumulative Rainfall for 1 Sept 2006 to 20 January 2007 as Percentage of Normal**

In agricultural production, the distribution of rainfall is equally as important as the cumulative rainfall. Comparison of rainfall received with the average always provides an indication of how well the season is performing. This type of analysis also indicates whether the season is above, below or on an average level. This helps in developing scenarios of what is likely to happen in terms of agricultural production in the future. Figure 2 shows the rainfall between 1 September 2006 and 20 January 2007 expressed as a percentage of average. The analysis indicates that some areas have been consistently receiving low rainfall, while others have been receiving high amounts. Green colours show areas where rainfall has been above average, while yellow and brown colours show areas where rainfall has been below normal. Areas that are highlighted as having received below normal rainfall since the beginning of the season include parts of DRC, Namibia, southern Mozambique, and parts of South Africa. The areas in western South Africa do not produce grain at this time of the season.

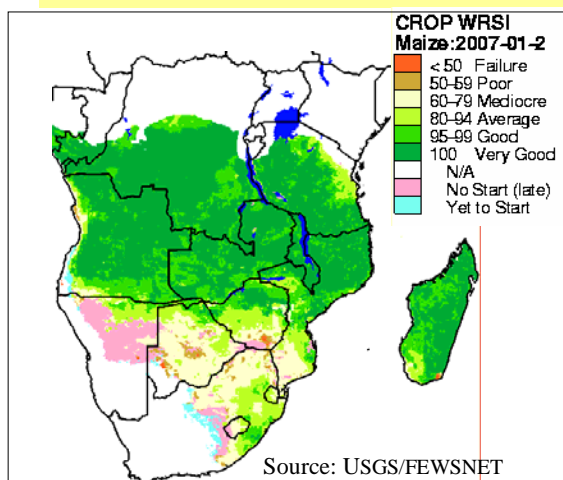
This 10-Day Agromet Update is a product of the Regional Remote Sensing Unit (RRSU) in the SADC FANR, in collaboration with the USAID FEWSNET Project. Ground information used is obtained from the National Early Warning Systems in the SADC Member States



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**Fig.3. WRSI Projected to end of season as at Dekad 2 of January 2007**



**South Africa** The country received moderate rainfall during the dekad (figure 1). Cumulative rainfall received (figure 2) indicated normal rainfall with some areas with rainfall between 60-75%. The crop estimate committee report indicates that the country is expecting a good crop due to increase in area planted from about 1 600 200 ha last season to 2 682 500 ha this season. This translates to an increase of about 67% more than the previous season. The leading agricultural provinces include Free State with over 1million ha planted followed by North West with 836 000ha and Mpumalanga with 550 000 ha.

**MALAWI** The country received lower rainfall compared to the first dekad of January 2007 where incessant heavy rainfall caused flooding in parts of the country. The low rainfall allowed farmers to weed their fields and other farm activities. The crop condition in the field is reported favourable with the maize crop ranging from vegetative to flowering and cob development stages. So far no major incidences of pests and diseases have been reported. Due to early onset of rains in parts of the country leading to early planting, crops may mature early, and if the good rains continue into February, prospects of a good harvest look good. The good rains received so far this season have not only benefited crop production, but also the development of pastures as well. Pasture and water for livestock are readily available, resulting in improvement of nutritional status and condition of most animals

**Projected Water Requirement Satisfaction Index as of Dekad 2 of January 2007**

The Water Requirement Satisfaction Index (WRSI) is a measure of the extent to which the water requirement of a particular crop has been satisfied during the growing season. The WRSI can be provided for the current dekad or can be projected up to the end of the growing season using normal rainfall data. Figure 3 provides WRSI scenario of what would be obtained at the end of the season given the existing rainfall situation. The image indicates that most of the northern half of the SADC region has received sufficient rainfall to support a maize crop to full maturity. This scenario would lead to a good harvest assuming that the inputs and farm management practices were optimal. Parts of Namibia, Botswana, southern Zimbabwe, southern Mozambique, Lesotho, Swaziland and South Africa would have mediocre harvest. However, South Africa has good farm management practices which would increase yields.

**FLOOD WATCH** The second dekad of January received substantial amounts of rainfall which led to flooding in parts of Angola, Zambia, Mozambique as well as Madagascar. Reports indicate that the Zambezia province in Mozambique has been affected as well as bordering areas. At the same time most parts of Zambia and Malawi have been affected by floods. While the season was beginning to appear promising, the flooding will affect the development of some grain crops particularly maize which is affected by water-logging thereby reducing yields.

**TANZANIA** Moderate to heavy rains were experienced in the country during the dekad except for the north-eastern coastal areas. Soil moisture during the dekad continued to favour crop growth and planting with a few localized areas where excessive soil moisture levels made it difficult for land preparation using farm machinery such as tractors, thereby delaying the activity. However, following improved soil moisture conditions, the general crop situation over the bimodal rainfall pattern is relatively in good condition with maize crop at vegetative stage except over a few areas such as Rombo district in the north eastern highlands where the crop was near tasseling stage.

**LESOTHO** The first two dekads of January 2007 witnessed dry weather conditions. Only Phuthiatsana and Semonkong received near normal to above normal dekadal rainfall during the second dekad of January. Due to high temperatures and suppressed rains, all summer crops have been experiencing water stress and this has negatively affected the development of maize and sorghum crops in most parts of the country. Crops in the western tip of Mafeteng, where it has been very dry and hot since the beginning of the current year are at risk of being permanently destroyed by high temperatures and very low soil moisture.