



FOOD SECURITY EARLY WARNING SYSTEM

Agromet-Update

Summary Performance

2005/2006 Crop Growing Season



Seasonal Summary

Season: 2005–2006

Release date: 05–05–2006

Highlights

- ❑ High rainfall received during the 2005-06 agricultural season...
- ❑ Limited availability and high prices negatively affect input accessibility...
- ❑ South Africa to produce 5.9Mt of maize representing a 46% drop ...
- ❑ Malawi and Zambia poised for above average national maize production...

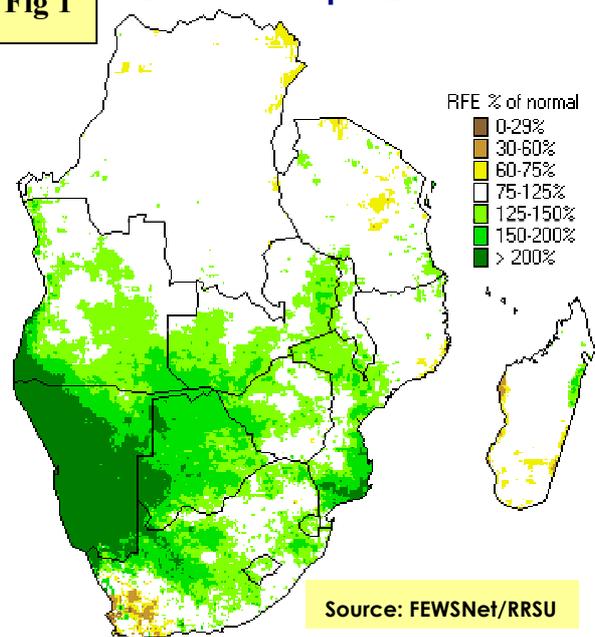
The 2005-2006 season was generally very wet, with most areas in the region receiving an unusually high rainfall as indicated in figure 1. Figure 1 shows the rainfall received between 1 September 2005 and 30 April 2006, expressed as a percentage of the average rainfall that is usually received during the same time period. The green colors on the map show areas that have received more than normal rainfall, with the deepest green colors (mainly in Namibia) indicating areas where more than twice the normal rainfall was received (i.e. more than 200% of normal). It is important to note that the normal annual rainfall in Namibia is not very high (approx. average 300mm).

A few areas, including many parts of Tanzania, received below normal rains (yellow colors), while most areas had either approximately normal seasonal rainfall totals (white colors), or above-normal seasonal rainfall totals. While total seasonal rainfall has so far been adequate for many domestic, industrial and agricultural applications, there are a number of areas in the region that were negatively affected by either periods of inadequate rainfall or excess rainfall. Areas with insufficient rainfall resulted in wilting of crops while areas with excess rainfall resulted in flooding, nutrient leaching and weed infestation.

This report tries to provide a summary of how different areas in the region were affected by the rainfall patterns that played out over the last seven months. **Please note that this is the last report of the season and will resume in November 2006 .**

Fig.1. Percentage normal rainfall for rainfall totals from 1 September 2005 to 30 April 2006

Fig 1



Source: FEWSNet/RRSU

Input supply and availability during the 2005-06 agricultural season

Problems of access to inputs were experienced in a number of countries but were slightly more serious in Zimbabwe, Zambia, Botswana and Lesotho. Malawi had put in place a good input programme. Limited availability and high prices contributed to lack of access to improved seeds, fertilizers and hiring of tractors by smallholder farmers. Assessments indicated that the area planted to crops was higher than previous season in most countries except for South Africa, where estimates indicated that commercial farmers had reduced maize planted area by almost 50%.

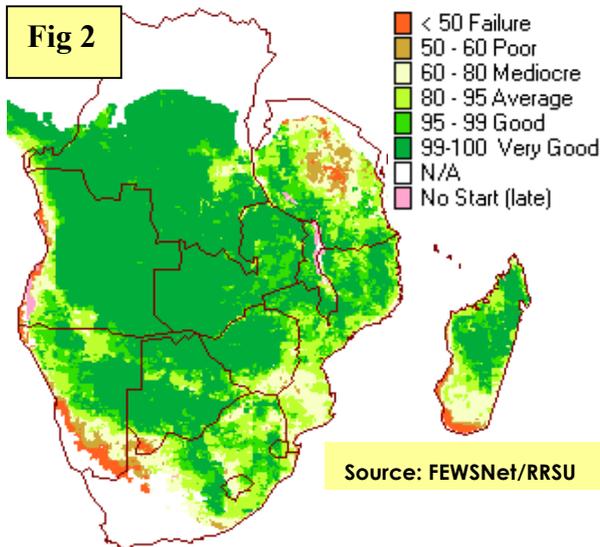
This 10-Day Agromet Update is a product of the Regional Remote Sensing Unit (RRSU) in the SADC FANR, in collaboration with the USAID FEWSNET Project. Ground information used is obtained from the National Early Warning Systems in the SADC Member States



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**Fig.3. Maize WRSI for 2005-2006
Agricultural Season as at 30 April 2006**



Source: FEWSNet/RRSU

The Water Requirement Satisfaction Index (WRSI) is a measure of the extent to which the amount of water required by a crop to mature and provide a potential yield has been met. The map in figure 2 shows the status of the WRSI for the current season. The map can be applied confidently to a maize crop. In the map, dark green colors indicate areas where the water (rainfall) received, met the requirement of the crop during the growing season, and therefore increasing the chances of a good yield. Lighter green colors indicate areas where the crop received almost sufficient water to allow for an average to good crop performance, while the cream colors are for areas that received less sufficient water during the season to allow for a mediocre crop.

Areas in brown and red colors are more likely to have obtained a very poor or failed crop respectively, basing this conclusion just on the water availability. In summary, figure 2 suggests that most areas in the region received enough rainfall to obtain good yields. A closer look however shows that a number of areas were negatively affected by insufficient and inconsistent rainfall, and these include southern Angola, parts of Lesotho, parts of southern Malawi, southern Mozambique, parts of Swaziland, large parts of Tanzania, and southern Zimbabwe.

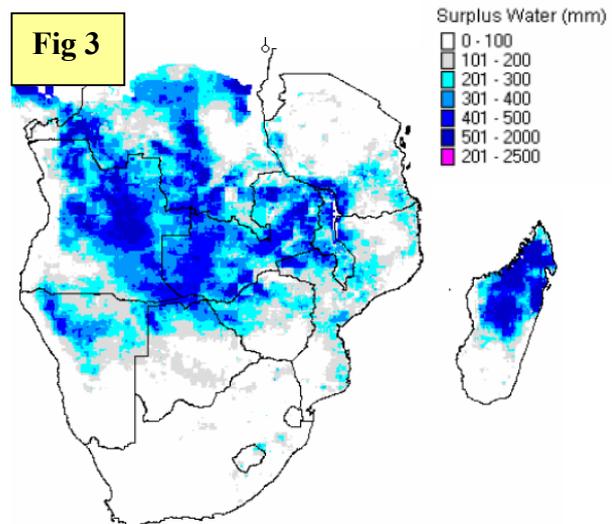
While the WRSI usually captures well those areas that are affected by water deficits, it does not capture very well areas that were negatively affected by excessive rains, resulting in flooding, water-logging and leaching of nutrients.

Implication of high rainfall on yield

The high rainfall experienced during the 2005-06 agriculture season improved yields in many parts of the region. Generally, yields of most crops including cassava, maize and sorghum are expected to be above average except in areas where input availability and access was problematic. The high rainfall encouraged proliferation of weeds which required consistent labour to weed the fields. Some countries in the region are expected to have good production.

Areas with surplus water

Figure 3 shows areas that have received surplus rainfall in comparison to the water requirements of a maize (cereal) crop. This represents an accumulation over the whole season. The deeper blue the colors on the map are, the more surplus water the area received over the growing season. Areas which received more surplus water are more likely to have suffered due to flooding, water-logging and leaching. However, because the model used here does not account for certain hydrological processes, this product should only be interpreted as a very general guide. Overall, Figure 3 indicates that most of the SADC countries covering Angola, the DRC, Zambia, Malawi, and parts of Namibia, Botswana, Tanzania, Zimbabwe and Mozambique may have been affected by surplus water of at least 300mm.



Member State Analysis

MALAWI The country experienced good rains during the agricultural season despite late onset of effective planting rains. Dry spells ranging from 3 to 4 weeks were experienced in some parts of the country in February 2006. Although the dry spells were wide spread, the severity varied from place to place. The worst affected areas included Nsanje and Kasungu Districts.

During early March incessant rains caused flash floods in Salima and Ntcheu districts in central region and Mangochi and Machinga in the south. More flash floods were reported in early April 2006 in Nkhata Bay district. The country is forecast to produce about 2.35 million Mt of maize, just over the annual requirement of 2 million Mt.

Among other factors, the increase in production could be attributed to the good rainfall pattern and government's input subsidy programme. However, although this year is looking much better, there are still areas likely to get poor yields in the north, such as Kasungu, Rumphu and Karonga.

SOUTH AFRICA The country received good rainfall during the agricultural season except in parts of the Northern Province. However, farm management practices are very high in the country especially among commercial farmers. Revised estimates indicate that commercial farmers had planted 1,565 700 million hectares of maize crop, representing 46% drop in area planted compared to last season. Given that the country normally produces about half of the maize output in the SADC region, the low area planted to maize may lead to a greatly reduced regional maize production in 2006 compared to last year, in spite of high expectations in most Member States.

Preliminary production estimates as of 20 April 2006 indicate that maize production to be around 5 920 200 tonnes representing a 46% drop compared to last season while sorghum is estimated at 80 735 tonnes, a drop of about 69%. However, groundnuts and soya beans are estimated at 76 025 and 383 245 tonnes, representing an increase of about 18% and 40% respectively.

BOTSWANA The country received good rainfall during the agricultural season with normal to above normal rainfall in most parts of the country. There were also floods reported in central and eastern regions of the country. Maize and sorghum area planted increased to 45 875 ha and 46 311 ha respectively. This was an increase of 52% and 28% respectively. However, the country will still experience cereal deficits as the current production may only meet 14% of the requirements.

SWAZILAND Good rains were experienced during the agricultural season although dry spells affected the crops. Mature crops are being harvested (see picture) although prolonged rains affected the cobs leading to rotting. In March, crops were damaged due to hailstorms. Indications are that the planted area to maize crop is less than the previous season and this may impact on production. A preliminary forecast of 67 000 Mt has been given by the Swazi Early Warning Unit.

Maize Harvesting in Swaziland



Source: Swazi Met

ZIMBABWE The country experienced a good 2005/06 agricultural season. The onset was timely except for the eastern and southern parts of the country. Manicaland and Masvingo provinces have particularly performed poorly during the current season. Good rainfall conditions prevailed for a good crop although in other parts of the country excessive rainfall was reported leading to yellowing of maize yellowing due to leaching of nutrients. The high cost of inputs especially fertilizers and seed will greatly affect production this season. However, poor rainfall will also contribute especially in the eastern and southern parts of the country. Remote sensing estimates indicate that the national maize production may be between 1.1-1.2 MT, which far lower than the national requirement.

ZAMBIA The country experienced a good season during the 2005/06 agricultural season. As indicated in figure 3, the country experienced excessive rainfall such that there was surplus water. During the season, floods were reported along upper Zambezi and Luangwa rivers, while fungal diseases affected bean crops in Petauke, and in Magoye, cotton and some leguminous crops were in poor condition due to excessive rains. Despite this, the country is expecting an above average production in the main staple food crop, maize. This will improve the food security situation assuming accessibility is not a big possible.

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