



# REGIONAL FOOD SECURITY PROGRAMME

## GROWING SEASON STATUS

### Rainfall, Vegetation and Crop Monitoring



2005/2006 Issue 2

November 2005

Release date: 15 December 2005

### Highlights

- Analysis of rainfall performance shows that most parts of the region had received meaningful rains by the end of November 2005
- Field reports indicate that land preparation is in progress and sowing of maize has started in many parts of the region. Satisfactory crop conditions noted in some areas where sowing was early.
- Dry conditions persisted in the vuli (short) rains in the coastal region and north-eastern highlands of Tanzania.

Feature: "Food Security in Southern Africa: To grow or not to grow"  
(Page 2)

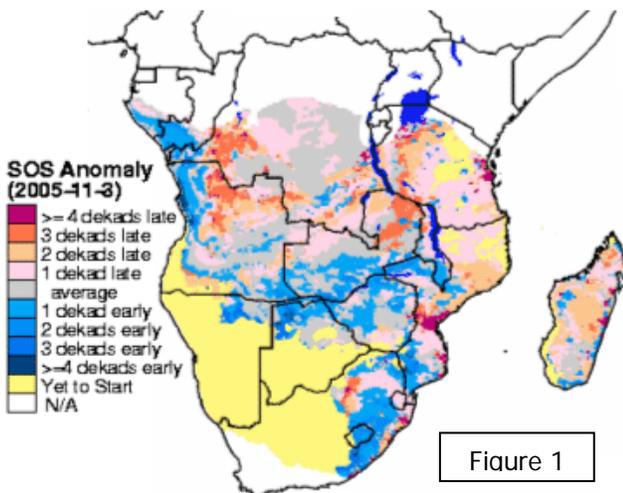
### Contents

Editorial ...	Pg. 2
Season Development...	Pg. 1/2
Rainfall Estimates ...	Pg. 3
Vegetation Maps ...	Pg. 4
Country Updates	Pg. 5

### Rainfall Performance

Rainfall estimates (RFE) (page 3) and ground reports suggest that rains came on time across many parts of the SADC region. While only a few areas received rainfall in September and October, good rains were received in many areas of the region in the month of November. The rains covered most of the region with the notable exception of eastern Tanzania and northern Mozambique, where it was dry throughout the month. Comparison with an average (of 1995-2004) shows that normal rains were received in the month, with a few areas including Botswana registering above average rains.

Most areas in the SADC region normally receive their sowing rains in the month of November, with only a few getting them in October or December.



Comparing with average start of season (figure 1), it can be seen that rains were either early (blue colours) or on time (grey) in many areas of the SADC region. A good number of the major maize growing regions received rains earlier than expected. Other areas where rains are late (orange, red colours) include central Mozambique and northern Zambia.

An updated seasonal forecast from the Drought Monitoring Centre (Harare) indicates a likelihood of normal to above normal rainfall over most parts of the region for the period December 2005 to February 2006. Eastern Tanzania, south western South Africa, western Namibia and western Madagascar are forecast to receive normal to below normal rainfall.

#### SADC Member States:

Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe.

Published by: **Regional Remote Sensing Unit, FANR Directorate, SADC Secretariat**, Private Bag 0095, Gaborone, Botswana  
Tel: (267) 3611826 / 3951863 Telefax: (267) 3972848 Website: [www.sadc.int](http://www.sadc.int)

**EDITORIAL**

*The Regional Remote Sensing Unit (RRSU) is pleased to present the second issue of the Growing Season Status Report for the 2005/2006 rainy season, covering the month of November 2005. The RRSU acknowledges financial support from Member States (through FANR) and from the EC through an EC-funded FAO project. FAO and USGS/FEWSNET provide technical support and data inputs.*

*The analysis presented in this bulletin is based on METEOSAT derived Cold Cloud Duration images, which are received through the Botswana Meteorological Department, Rainfall Estimates (RFE) and NOAA-NDVI from the FEWSNET Project. Ground data and interpretation are provided by collaborating national meteorological services and early warning units of the SADC Member States.*

*The RRSU also provides regular updates on the progress of the 2005/2006 rainy season through the 10-day Agromet Update, which is distributed by the SADC Regional Early Warning System, and posted on the SADC web-site ([www.sadc.int](http://www.sadc.int)) and the Southern Africa Flood and Drought Network site ([www.sadc-hazards.net](http://www.sadc-hazards.net)), which is maintained in collaboration with FEWS NET.*

*Sowing rains in most parts of the region are usually received in November, with a few areas receiving them in October and December. The significant showers received in large parts of the region are indicating a good start to the season. Good rains were received in Angola, Botswana, Democratic Republic of Congo, Lesotho, Namibia, South Africa, Swaziland, Zambia, Zimbabwe and parts of Mozambique. The north-eastern part of the region, covering northern Mozambique, northern Malawi and eastern Tanzania, remained largely dry throughout the month. Vegetation conditions in most parts of the region were yet to respond to the beneficial rains by the end of the month.*

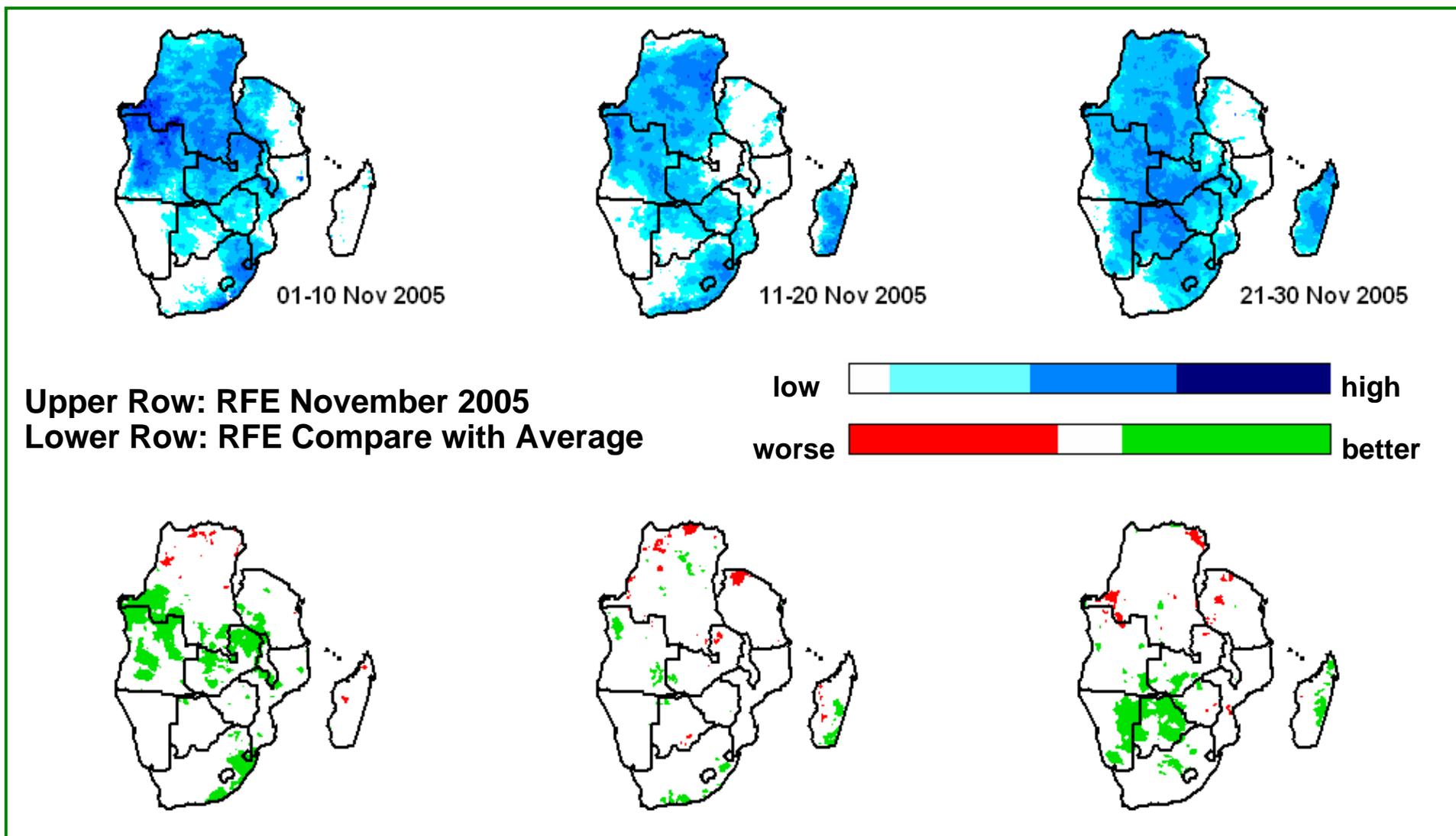
*The focus of this bulletin is primarily at the regional level. However, any information available has been included in this report. For more detailed sub-national analysis, readers should **consult the national meteorological agencies and food security early warning units.***

**Vegetation condition**

Normalized Difference Vegetation Index (NDVI) images (page 4) for November indicate that below average vegetation conditions prevailed in large parts of the region, including southern Zambia, most of Tanzania, most of Zimbabwe, most of Mozambique, south-eastern Angola, north-eastern Namibia, and central South Africa. Vegetation conditions in most of these areas are likely to improve in December in response to the widespread rains received in November. The poor conditions are likely to persist in most of Tanzania where rains were not received. Pasture conditions should improve significantly in December in most areas including Namibia and Botswana, where above average rains have been received so far. Meanwhile, there was good vegetation condition in DRC and most parts of Angola.

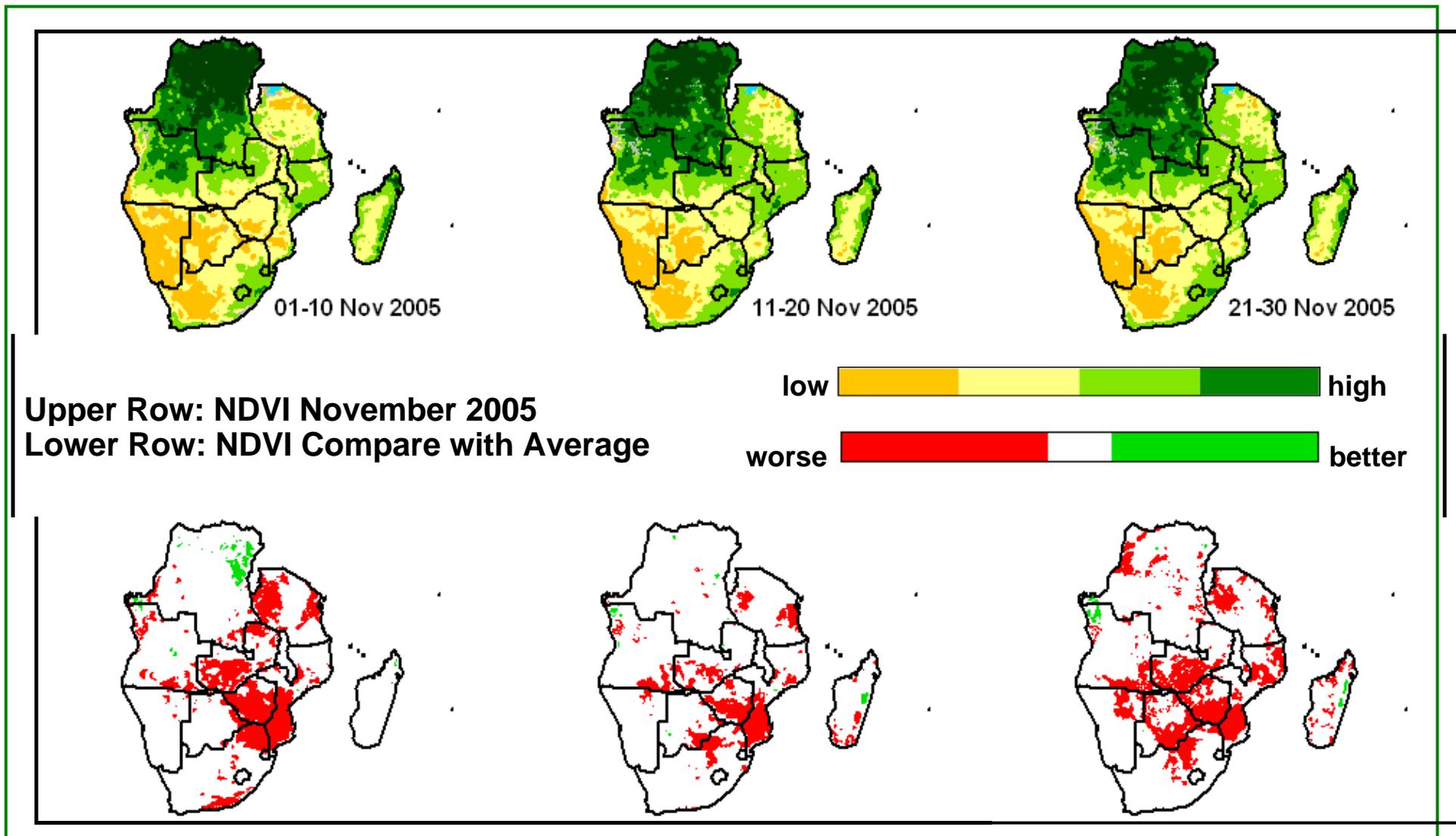
**Food Security in Southern Africa: To grow or not to grow**

The issues of food security in southern Africa are very complex. Several researchers have produced documents and have cited a myriad of reasons why food insecurity has persisted in the region including poor infrastructure, moisture deficits due to prolonged dry conditions, lack of market opportunities, HIV/AIDS, poor agricultural policies and governance as well as technical capacity on the part of the small-scale farmers. The list can go on and on. Rain-fed agriculture constitutes about 90 percent of the agricultural activities in sub-Saharan Africa leaving only about 10 percent to irrigated agriculture. While most of the vulnerable or food insecure communities are in the rural areas, what choice do they have, whether to grow or not to grow? What other income generating opportunities exist in remote areas where everyone else surrounding one's household is poor? From the agro-climatic point of view, most of the crops are being cultivated in areas where the climatic conditions are unsuitable. But why do farmers still grow those crops anyway? Over the years, consumption patterns have determined what is considered as food for everyday living. Small-scale farmers decide to grow particular crops even when these crops have often times failed than succeeded because they need to eat. Are there alternatives? Yes. Diversification of crops starts with a full understanding of optimal conditions under which a particular crop may grow, thorough market analysis both within the country and outside and operational agricultural policies that will encourage market oriented produce. In order for diversification to be successful, there is also need for a change of eating habits that will be in line with crops that are potentially able to perform well in a particular locality. Production of non-food crops may be a reasonable alternative as long as appropriate appraisal is conducted including cost-benefit analysis. A lot of baseline information has been collected through the various national Vulnerability Assessment Committees (VAC's) over the last 4-5 years and it is time that these data sets are applied for agricultural policy development and sustainable rural development programs. While the issues pertaining to agricultural markets and policies deficiencies are real, there is need to fully understand what can be grown and what cannot and develop agricultural policies that will allow easy implementation.



**Figure 2.**

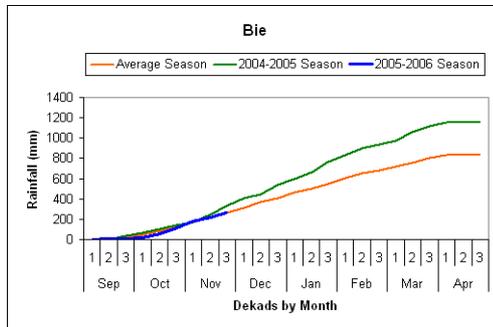
Rainfall Estimates (RFE) images, November 2005 and difference from average  
 From left to right are Dekads 1 (1-10 Nov), 2 (11-20 Nov) and 3 (21-30 Nov)  
 Differences from average, lower row, are based on a 10-year average of 1995-1994



**Figure 3.** Normalized Difference Vegetation Index (NDVI) images, November 2005 and difference from average  
From left to right are Dekads 1 (1-10 Nov), 2 (11-20 Nov) and 3 (21-30 Nov)  
Differences from average, lower row, are based on a long term average of 1982-2003

## Time series and country updates

A number of rainfall graphs are here presented with updates for SADC countries for which satellite and/or field information (provided by collaborating NEWUs) is available. The graphs are based on rainfall estimates (RFE) data and show a comparison with a 10-year (1995-2004) average for selected sub-regions of SADC, which can be administrative boundaries, watersheds, or agricultural areas.

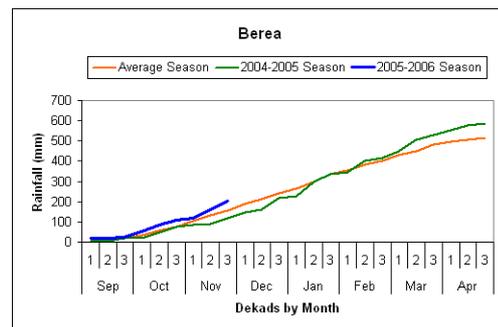
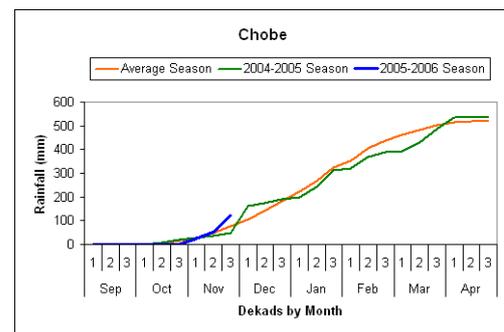


### Angola

Satellite imagery suggested that the country received widespread good rains throughout the month of November. Analysis of cumulative rainfall received shows that average rains have been received since September, with some parts of the south east showing above average cumulative rains, suggesting a good start to the season. Cumulative rainfall graphs suggest that the Bie province (central Angola) received normal rains for the month.

### Botswana

Widespread rains were received in most parts of the country in the month of November, with higher amounts being registered in the northern parts. The first two dekads had light showers while the third dekad had widespread moderate to heavy showers. Pastures will benefit significantly from these rains following a long dry winter. Cumulative rainfall graphs for Botswana's Chobe district in the north suggest that above average rainfall totals have been received so far.

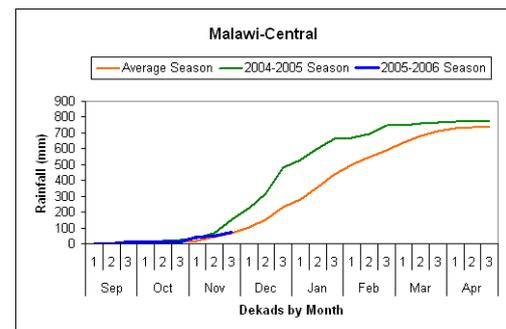


### Lesotho

Most parts of the country received good rains throughout the month of November. While in some parts of the country sowing is still in progress, maize and sorghum were at the emergence to early vegetative stage by the end of the month in the western and northern lowlands. Cumulative rainfall graphs for Berea show that rains increased during the month, suggesting a good start to the rainfall season.

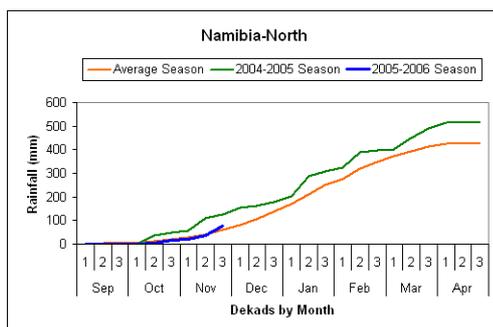
### Malawi

Showers were received in the first and third dekads of the month, while the second was largely dry. These rains mark the start of the season for the country, which was largely dry in October. Land preparation, sowing and weeding were the major agricultural activities by the end of the month. Cumulative rainfall graphs for central and southern Malawi show that average rains have been received so far.



### Mozambique

Light to moderate rains were received in the central and southern parts of the country while the north remained largely dry. Rainfall analysis suggests that rains are delayed in some of the parts of the country. Vegetation condition was below normal for most of the country while cumulative rainfall graphs suggested a normal start to the season for the southern parts of the country.



### Namibia

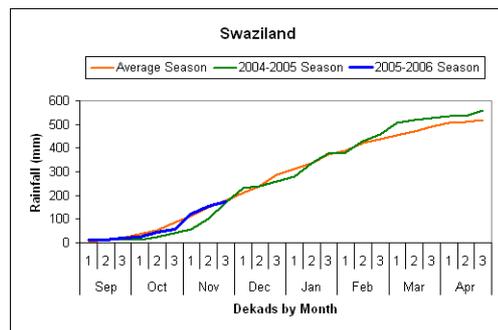
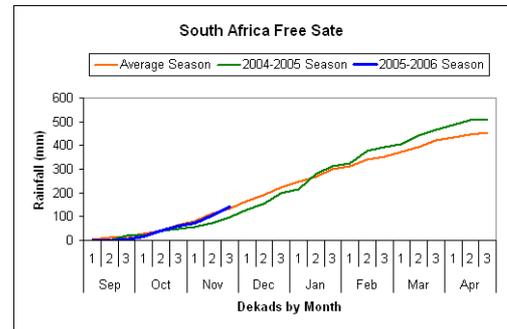
The month started off dry in the first ten days but light to moderate rains were received in the eastern and northern parts of the country in the second and third dekads of the month. Vegetation conditions were less than average for the north-eastern parts but pastures in these areas should benefit from the showers received in the month.

**Madagascar**

Satellite imagery suggested that the country was mostly dry in the first ten days of the November month but received widespread moderate showers in the second and third dekads of the month. Vegetation conditions were above average for the eastern and northern parts while the western parts had below average conditions.

**South Africa**

The eastern and northern parts of the country received significant showers throughout the month. Rains were more widespread in the third dekad of the month, covering most parts of the country with the exception of the western parts. Cumulative rainfall analysis shows that the eastern parts of the country had received above average rainfall totals by the end of the month, while parts of the north had lower rainfall totals than average. There were unconfirmed reports of reduced planted areas.

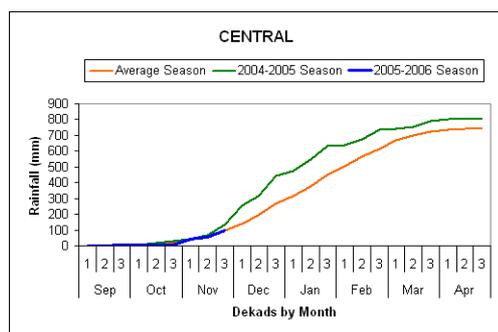
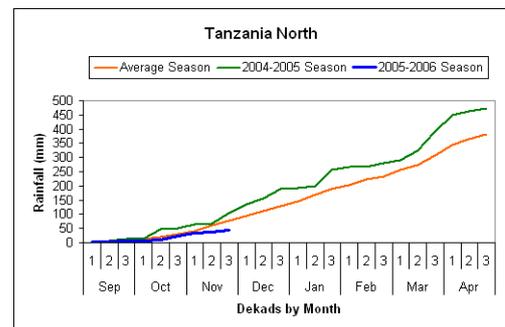


**Swaziland**

Much above-average rainfall was received in most parts, with heavy falls experienced in certain areas being an impediment to land preparations. The third dekad was drier and allowed land preparations to continue. Crops already planted were at an early vegetative stage and in a good condition. Weeding was required in certain areas while some maize farmers were still busy with land preparation and sowing in most parts of the country. Cumulative rainfall graph for the country suggested that rainfall activity picked up significantly in the month.

**Tanzania**

The month was characterized by the persistence of dry conditions in the short rain season (vuli) areas, leading to soil moisture deficits. There were reports of stressed crops in the Kagera and Tanga regions. Crop stages over these areas ranged between early vegetative and tasseling for maize, and vegetative to ripeness for beans. Crops situation in the bi-modal areas was generally moderate. For the uni-modal rainfall areas, land preparation was the major farming activity in the month. Cumulative rainfall graphs for northern Tanzania highlight the poor performance of the vuli rains.



**Zambia**

Good rains were received in most parts of the country in the month of November, with a notable improvement in rainfall performance in the last ten days of the month. Higher amounts were recorded over the north-western parts of the country. Land preparation and sowing were the dominant farming activities of the month. Cumulative rainfall graphs for the Central province suggested a normal start to the season.

**Zimbabwe**

The country received significant rains in the month of November, with the amounts increasing as the month progressed. The third dekad was the wettest, with amounts in excess of 50mm being received in the high grain producing areas of the north east. Ground reports indicate that evaporation rates were high throughout the month. However, there were unconfirmed fears of possible water logging following the wet spell that was expected to continue into December. Land preparation and sowing were the major activities in the month. Cumulative rainfall graphs for the north-east suggest an average start to the rainfall season.

