

REGIONAL FOOD SECURITY PROGRAMME

GROWING SEASON STATUS

Rainfall, Vegetation and Crop Monitoring



2005/2006 Issue 4

January 2006

Release date: 21 February 2006

Highlights

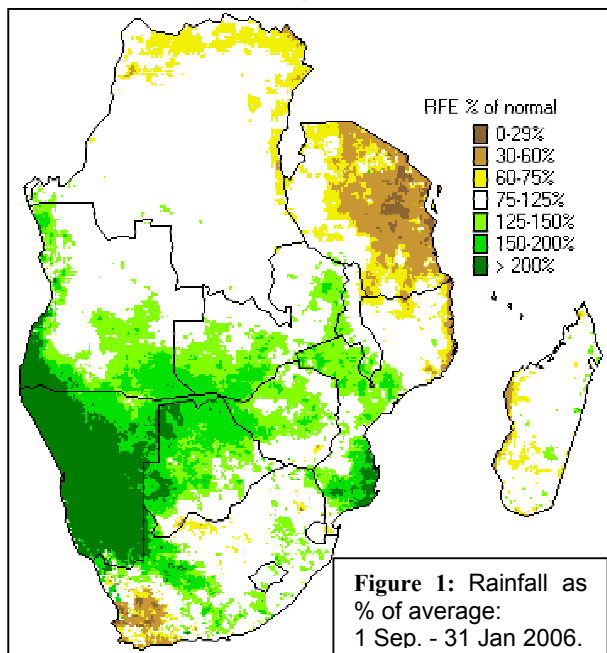
- **Analysis of rainfall performance shows that most parts of the region had received good rains by the end of January 2006**
- **Floods in Malawi (Salima and Mangochi) wash away crops and destroy infrastructure.**
- **Field/crop assessments being carried out to determine the effect of the rainfall performance in some Member States.**
- **Weeding and fertilizer application were the main agricultural activities in many parts of the region, while sowing of maize continued in northern Mozambique.**

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Rainfall Performance

Rainfall Estimates (RFE) [figure 2, page 3] and ground reports confirm that good rains were received over much of SADC in January. During the month, substantial amounts were received over the north-western parts of Namibia;



while isolated substantial rains during the first dekad were received in parts in Angola (Kuito and Chinguar districts), Botswana (Ngamiland West district) and Zimbabwe (Makonde district). Above average rainfall totals were registered over the extreme south-western Angola, extreme western Botswana, southern Mozambique and over most of Namibia. However, some areas in northern Mozambique experienced below normal rains. Rains continued to be erratic over most of Tanzania except for the Lake Victoria region, western and south-western areas which registered near normal rains.

A map of the total rainfall received from 1st September to January 31 as a percentage of average (figure 1) confirms the poor seasonal rainfall performance over the eastern half of Tanzania.

An updated seasonal forecast from the Drought Monitoring Centre (Harare) predicts enhanced chances of normal to above-normal rainfall conditions in most of the SADC region for the period February to April 2006.

SADC Member States:

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

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EDITORIAL

The Regional Remote Sensing Unit (RRSU) is pleased to present the fourth issue of the Growing Season Status Report for the 2005/2006 rainy season, covering the month of January 2006. The RRSU acknowledges financial support from Member States 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 10-day Agromet Updates, which are distributed by the SADC Regional Early Warning System, and posted on the SADC web-site (www.sadc.int) and the Southern Africa Flood and Drought Network site (www.sadc-hazards.net), which is maintained in collaboration with FEWS NET.

Good rains were received in most parts of the region during the month of January, with significant amounts covering parts of Angola, Botswana, DRC, southern Malawi, central and southern Mozambique, most parts of Zambia, most parts of Zimbabwe, northern Namibia, and northern South Africa. While this brought hope of a good season to most farmers in these areas, some farmers found themselves incurring significant losses when the heavy rains led to floods that destroyed crops and infrastructure (including homes). Incessant rains in some parts of the region may lead to a reduction of yields due to leaching, which has been reported in some areas. Parts of Malawi and Mozambique witnessed some torrential rains which led to flash floods and flooded rivers. Some families were left homeless while losses of life due to flooding and lightning were reported in some cases. However, some parts in northern Mozambique (where the season normally starts in December) were experiencing dry conditions and planting in these parts was delayed up to January.

Parts of central Angola experienced a prolonged dry spell which started in the last dekad of December up to the end of January. Parts of the northern Mozambique continued to have erratic rains, the same as the adjacent parts of Tanzania where the main rainfall season started in January. The bi-modal areas of Tanzania suffered a failed vuli season which has meant that there are poor prospects of a good harvest as that season winds up. The main rainfall season in the unimodal rainfall regime has been delayed by up to 40 days in some areas and this is a worrying sign for the country's food security prospects.

Crop assessments were being carried out by teams from the Ministry of Agriculture to assess the impact of the season so far and harvest prospects in some Member States of the SADC region.

*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 (Figure 3 on page 4) for January indicate that vegetation conditions improved significantly in most parts of the region from December to the end of January. The central and northern parts of the region indicate significant improvement on vegetation as it responded to the good rains received in most parts of the region in January. The Vegetation Index for Botswana and Namibia indicated that most areas of these countries enjoyed good rainfall and a significant

improvement in vegetation conditions by the end of the month, enhancing pastures and benefiting livestock. However, the erratic rains prevailing in Tanzania reflected on vegetation in both the bimodal and unimodal rainfall regimes, while isolated areas in Angola also indicated poor vegetation conditions due to poor rainfall performance during January. Northern Madagascar, Zambia, Malawi and parts of South Africa indicated just below normal vegetation conditions also.

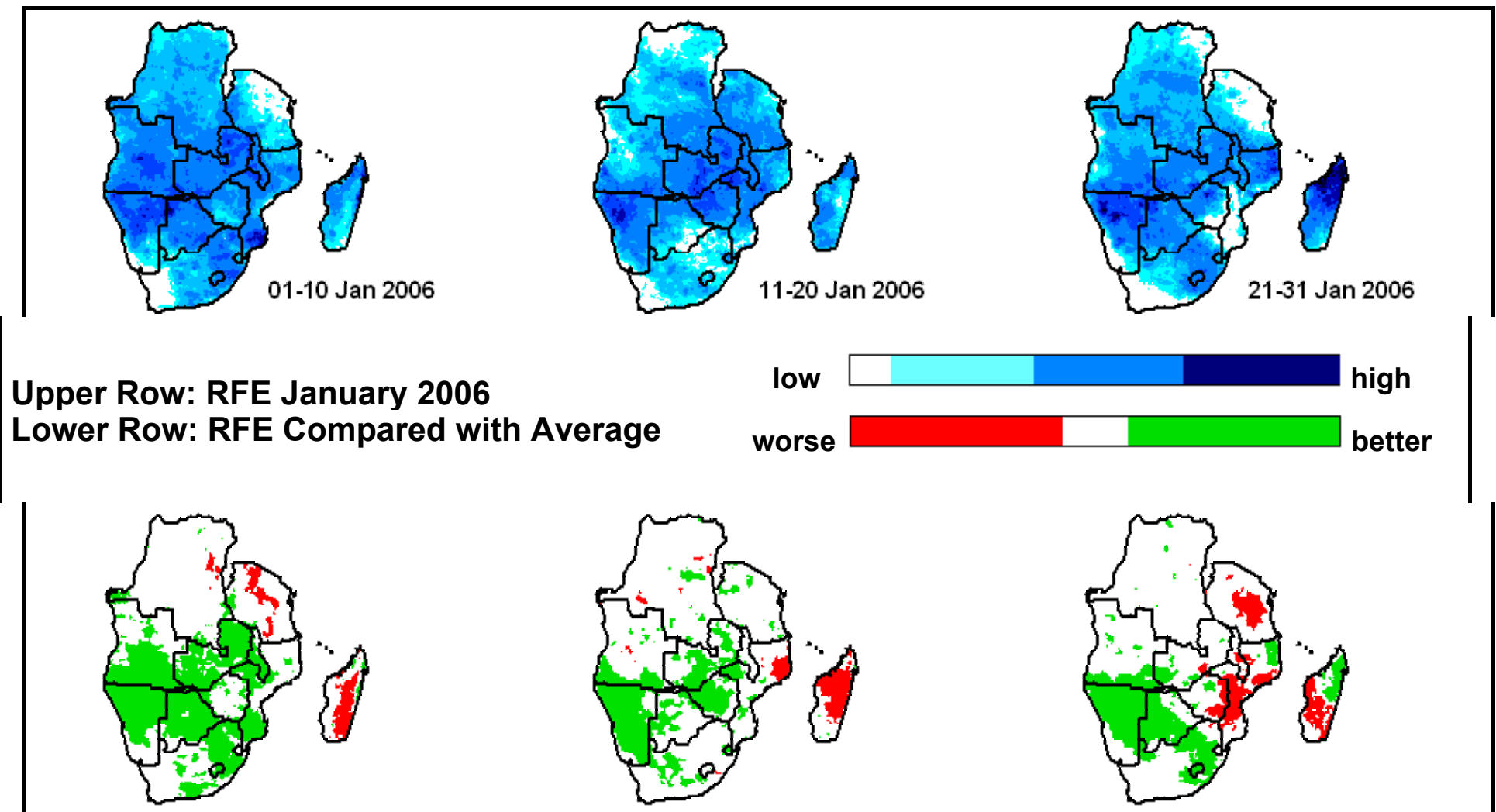


Figure 2. Rainfall Estimates (RFE) images, January 2006 and difference from average
From left to right are Dekads 1 (1-10 Jan), 2 (11-20 Jan) and 3 (21-31 Jan)
Differences from average, lower row, are based on a 10-year average of 1995-2004

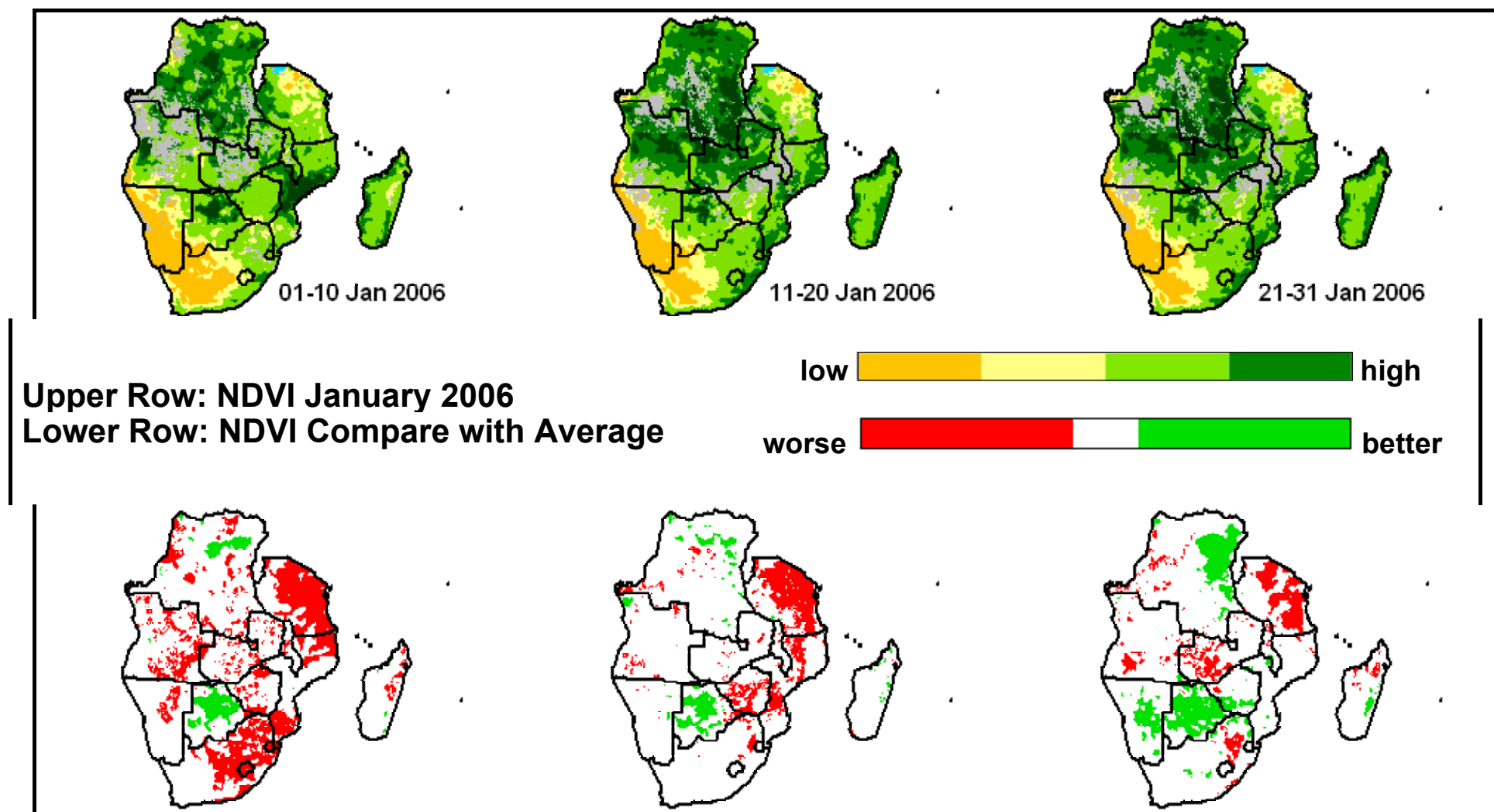


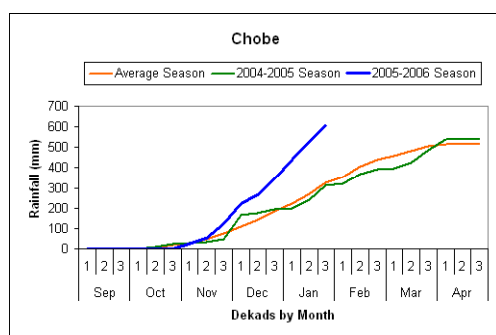
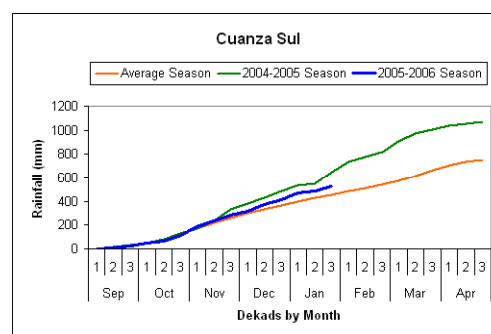
Figure 3. Normalized Difference Vegetation Index (NDVI) images, January 2006 and difference from average
From left to right are Dekads 1 (1-10 Jan), 2 (11-20 Jan) and 3 (21-31 Jan)
Differences from average, lower row, are based on a long term average of 1982-2003

Time series and country updates

A number of rainfall graphs are presented here, with updates for SADC countries for which satellite and/or field information 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 during the first dekad of January Angola received widespread rains. Moderate to significant rains were received in the southern third of the country during the second and third dekads while the rest received little or no rain at all. By the end of the month, crop assessments were being carried out to determine the effect of the prolonged dry spell which started in mid-December and prevailed up to the end of January 2006. Cumulative rainfall graphs suggest that the Cuanza Sul district received just above normal rains for the month.



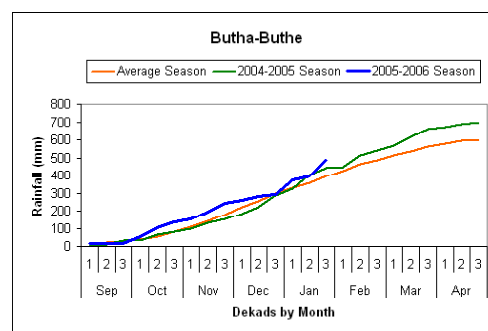
Botswana

Widespread rains were received in most parts of the country in the first and third dekads of January 2006. Significant amounts of rain were recorded in the northern parts, with Ngamiland West district receiving the highest for the month. The rains brought the much needed moisture resulting in significant improvement to pastures as vegetation condition generally picked up across the country. The south-eastern half was generally dry during the second dekad. Widespread rains were experienced in the last dekad. By the end of January, crop stages in Molapo farming

areas ranged from vegetative to maturity stages. Elsewhere crops planted in January were at emergence stage while those planted in November and December were at vegetative stages and weeding activities had started. Generally the crops were in good condition, however, there was stunted growth due to water logging and nitrogen leaching in Tati and Letlhakane agricultural districts. Cumulative rainfall graph for the Chobe district in east Botswana suggests a season much above normal from November 2005 to January, 2006.

Lesotho

At the beginning of the month, widespread heavy rainfall was received over the entire country. Leribe registered the highest dekadal rainfall of 113.3mm as well as highest daily rainfall, while Mafeteng, which showed the highest deficit throughout the growing period, also received normal rainfall. Below normal rainfall over most parts of the country was recorded during the second dekad. Widespread moderate to heavy rainfall fell over many areas during the third dekad. The widespread rainfall over most parts of the country was favourable for crop (especially maize) development. It also improved livestock and vegetation condition. Weeding was the main activity during January. Most crops ranged from tasseling to flowering stages. However, crops in Maseru (from Motloheloa to Makhalanyane) were badly damaged by hail. Cumulative rainfall graph from September 2005 to January 2006 for Butha-Buthe district indicates a season that is above normal.

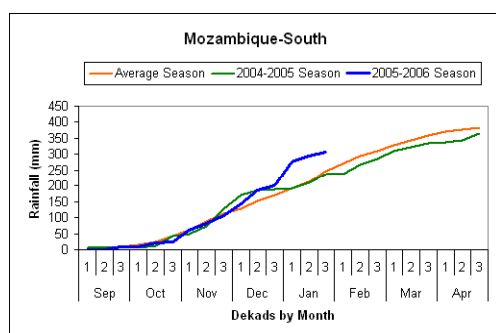
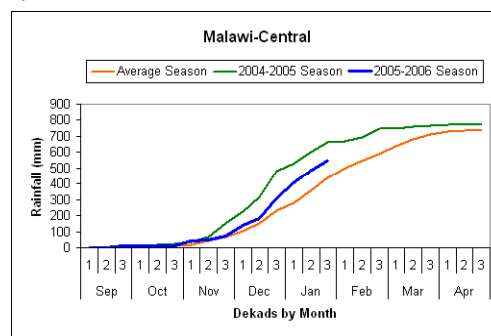


Madagascar

Satellite imagery suggested that the northern half of the country received widespread moderate to heavy showers during the month. The southern half was drier with some areas receiving little or none at all which have affected the important rice-growing region surrounding Lake Alaotra. Tropical depression Boeleste brought substantial rains to the northern part of country during the third dekad of January, and much needed moisture relief to the southern half. Vegetation conditions were generally near average, with a few areas registering below average conditions.

Malawi

Rains were favourable for good crop production in most parts of Central and Southern Malawi as substantial amounts of rain were received in the month of January. The heavy rains that were received in some areas particularly in the south and centre caused water logging. Floods were experienced in Chikwawa and Nsanje districts in late December, and additional floods were reported in Salima and Mangochi. The floods washed away crops, displaced families and destroyed infrastructure. However, the northern part received cumulative rainfall below the expected amounts. An outbreak of army worms was reported in some districts of Salima, Karonga and Ntchisi. By the last dekad, crops over parts of the north and central Malawi which had below normal cumulative rainfall and where localised dry spells were being experienced and were showing symptoms of wilting. In most parts of the southern and central regions, maize was at tasseling and cobbing stages, while in the north, (where planting of crops extended into January and early February) the maize crop was at early vegetative stage.



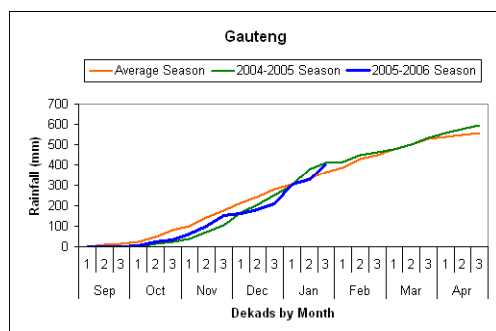
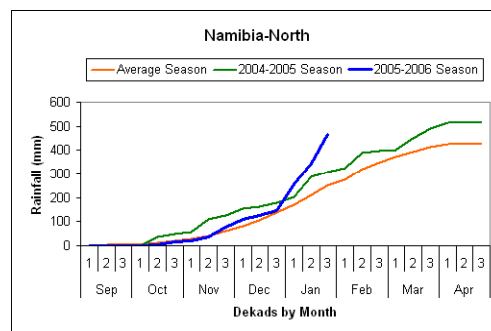
Mozambique

Southern Mozambique received significant rains during the first dekad while the central parts received good rains during the first two dekads. The northern parts experienced erratic rains and farmers were still planting by the end of the month. The lower Zambezi basin was under flood threat for over a month, with river levels rising and falling due to the pattern of the rains. Farmers in provinces that were drought stricken during the previous seasons benefited from the government, DFID and FAO input assistance offer. 28.000 vulnerable families in Inhambane,

Manica and Sofala, also benefited from the government scheme. Crops ranged from vegetative to flowering stages and were in good condition in the central and southern provinces. Livestock condition was good.

Namibia

Since the onset of the season, Namibia was receiving widespread normal rains. Above normal rains were received in northern Namibia, with districts such as Kamanjab, Outjoand, Otjiwarongo getting the highest amounts during the second and third dekads of January. Crops, livestock and pasture conditions improved significantly as well as general vegetation conditions. By the end of the month, the major agricultural activities were weeding and fertilizer application. Good harvests were being anticipated. Cumulative rainfall totals (September to January) show that good rainfall totals were received, suggesting an above normal season. A crop assessment mission by a team from the Ministry of Agriculture visited the northern regions in early January 2006.



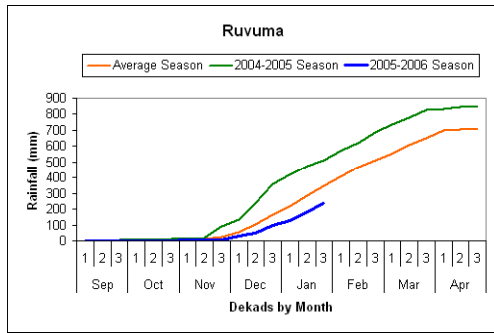
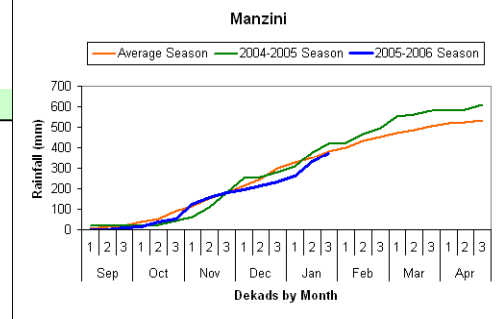
South Africa

The first half of the month was generally dry, with rainfall activity confined to the northern parts of the country. The western third of the country was dry in the third dekad while heavy rains fell elsewhere including over the maize growing areas. Analysis of cumulative rainfall total received since September for Gauteng province indicates a season below normal up to the beginning of January. However, rainfall totals surpassed the average mark by mid-January.

Swaziland

The month of January was wet for most of the country. Highly significant rains were received countrywide

during the first dekad. However, vegetation in the Lowveld was showing signs of stress due to moisture deficits experienced in the previous dekads. Significant rains continued to fall in some parts during the second and last dekads of January improving the conditions of crops, livestock, pastures and vegetation in general. At the beginning of January, most farmers were busy with land preparation and planting. By the end of the month, the major agricultural activities were weeding and fertilizer application. The majority of the early planted maize crop was at tasseling and cobbing stages and in good condition. The cumulative rainfall total (September to January) graph for Manzini indicates progression to a normalizing season by the end of January.



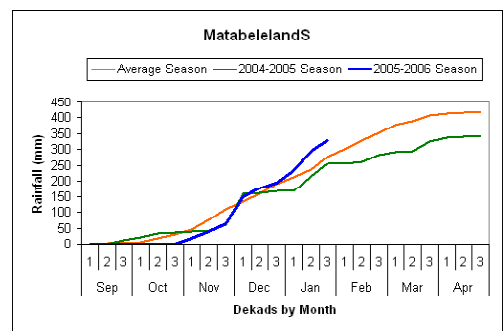
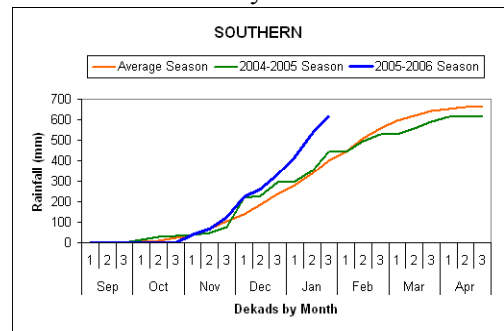
Tanzania

The first and third dekads were generally dry over almost the whole country with the exception of the extreme southern and western parts. The widespread rains in the second dekad brought the much needed moisture to the whole country, excluding the coastal bimodal region, alleviating the moisture deficits that were threatening agricultural activities such as planting and subsequent crop growth and development. In the unimodal areas ((central, southwestern highlands, southern and southern coast), the field crops were at various stages of growth ranging from emergence to vegetative stages. In the northern

Kigoma, Rukwa and Tabora regions where the season started early, maize crop was at vegetative (ninth leaf) stage while in the southwestern highlands and southern Iringa region, the crops ranged between vegetative and tasseling stages and in moderate condition in spite of the outbreak of armyworms reported in Ruvuma, Iringa and Mtwara region. On the other hand, the observed soil moisture improvement was likely to improve pasture conditions. Most fields though ploughed, had not been planted due to the widespread soil moisture deficits gripping most of central and southern coastal areas of Tanzania. For the bimodal areas, mainly over few areas in the Lake Victoria Basin, harvesting of the poor *Vuli* crop was coming to an end, while land preparations for long rains (Masika) season had started. Cumulative rainfall totals (September to January) for the Ruvuma region show a season way below normal.

Zambia

The country received well distributed good rainfall throughout the month of January 2006. The rainfall situation improved for the eastern half of the country which experienced a delayed onset of the growing season. Elsewhere significant well distributed rainfall was recorded including in the flood prone western plains that would be flooded by now had it not been for drought conditions experienced last year. Flash floods destroyed crops in Kalabo (Mayumbi area) and Chavuma (Kamisamba Area). Cumulative rainfall graph for the Southern province shows above average rainfall had been received from November up to the end of January. The main agricultural activities were weeding and fertilizer application, even though there were delays in inputs distribution. Generally, the maize crop ranged from vegetative to flowering stages while the early planted crop ranged from tasseling to maturity stages. Livestock condition improved significantly in many areas of the country except in some parts of the Southern Province where an out-break of disease had resulted in cattle deaths. Non-availability and high cost of fertilisers in many areas might result in reduced yield thus compromising food security.



Zimbabwe

Significant and well distributed rains were received throughout the month of January. The south-eastern half of the country was generally dry during the first dekad. Widespread rains over the entire country were received during the second dekad and third dekads. At the end of January, most parts of the country had



received more than 100% of their mean annual rainfall, with Masvingo having the highest of 184% followed by Kezi with 159%. However, the extreme southern districts of Zimbabwe had received less than 75% of their usual rainfall. In general, maize crops ranged from vegetative to silking stages and in fairly good condition. Tobacco was mature and being harvested in eastern and northern parts of Zimbabwe. Weeding, topdressing and chemical application were the main agricultural activities. Livestock conditions had improved in most provinces compared to the previous months.

SITUATION MAP

