



# Food Security Early Warning System Agromet Update



## 2012/2013 Agricultural Season

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Season: 2012-2013

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### Highlights

- Seasonal analysis shows the 2012/2013 agricultural season was marked by several challenges.
- Dry spell continues in southern Africa as season comes to an end.
- South Africa and Namibia harvest estimates highlight negative impact of the dry conditions.
- Malawi expecting an increase in maize production this season.

### Regional Summary

As the rainfall season draws to an end, the 2012/2013 agricultural season has been a challenging one for several parts of the region. Between December 2012 and February 2013, several countries including Botswana, Lesotho, Malawi, South Africa, Tanzania, Zambia and Zimbabwe experienced an army worm infestation at varying levels of severity. In the first half of January, record rainfall was received in many areas, resulting in flooding and waterlogging in several countries including Botswana, Malawi, Mozambique, South Africa, Zambia, and Zimbabwe. Cyclones, heavy rains and flooding also caused damage in Madagascar, Mauritius and Seychelles during the season. Immediately following the torrential rainfall of mid-January, central and southern parts of the region including southern

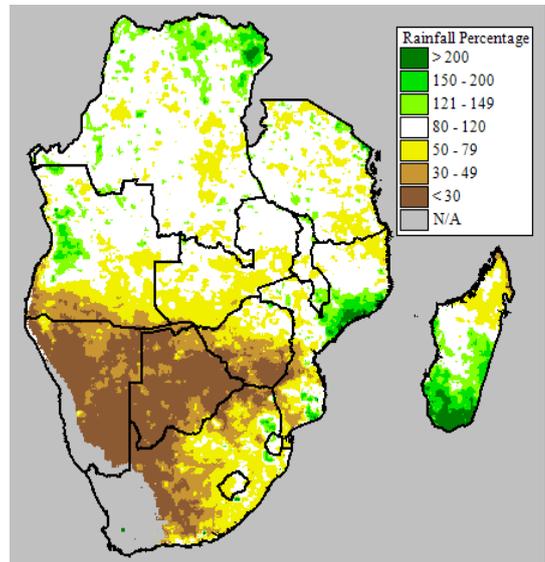


Figure 1. Rainfall anomaly for 21 Jan – 20 March 2013

Angola, Botswana, Namibia, South Africa, southern Zambia, and Zimbabwe experienced long dry spells that resulted in wilting of crops and pasture degradation. Namibia and South Africa have already noted the direct impact of the dry conditions on their harvest expectations, which stand at 27% reduction for cereals and 0.7 % reduction for commercial maize respectively, compared to the previous season.

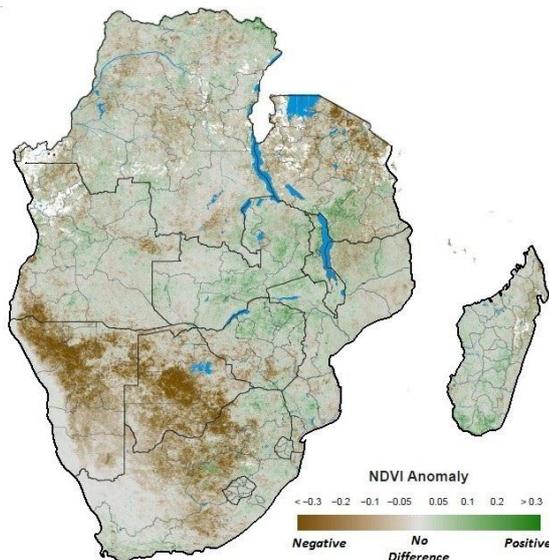


Figure 2. Vegetation index anomaly for 26 March to 5 April 2013.

Source: USGS/FEWSNET

More recently, dry conditions continued in the southern half of the region, with large rainfall deficits being experienced in several countries including Botswana, Namibia, southern Angola, southern Zimbabwe and northern/central South Africa, as analysis over an 8-week period starting mid-January indicates (Figure 1). The primary impact of this

dryness has been on reduced yields due to crop water deficits, and negative impacts on pasture has also been reported. Further rainfall analysis using satellite rainfall estimates (RFE) indicates that in many areas, the rainfall experienced during the 8-week period of analysis is the driest experienced in the 13-year RFE history since 2001. This includes most of Botswana and Namibia, much of southern Angola and southern Zimbabwe, and large parts of South Africa and Lesotho. Analysis of rainfall estimates over the 4 weeks ending 20 March indicate that significant dryness was also experienced in southern and central Zambia, central Mozambique, southern-most tip of Malawi, and northern Mozambique. National agrometeorological reports from Zambia indicate that the late planted maize crop was already affected by this dryness. The impacts of the recent dryness in northern and central Mozambique are yet to be established.

Although the harvest estimates for most of the other countries have not yet been released, it is likely that production in several areas has been negatively affected by challenges that impacted agriculture this season. In contrast, Malawi generally experienced a good season for the most part, and the Malawi second round crop production estimates suggest a marginal increase of 1.5% in maize production from last year.

## ***National Agromet Summaries***

### **Angola**

Recent satellite images of vegetation (Figure 2) suggest an improvement in vegetation conditions since last month, compared to average conditions. The major crop producing areas in the central parts of the country show near normal vegetation conditions. In the southern areas however, both vegetation images and satellite rainfall estimates suggest dry conditions which could affect crop and pasture conditions in those parts of the country. Many parts of Angola experienced a severe drought last season.

### **Botswana**

Botswana experienced well below average rainfall this season. An analysis of the 8 week period between mid-January and mid-March suggests that the entire country this season experienced the driest conditions for such a period over the available record of satellite rainfall estimates dating back to 2001. Current satellite vegetation images also show significantly below-average vegetation conditions in most parts of the country (Figure 2). Botswana is experiencing its second successive season of well-below average rains, particularly in the central and some of the eastern parts of the country. The low rainfall has led to reduced water levels, as well as crop moisture stress and permanent wilting across parts of the country. Significant above normal rains were received in late March, in the south-western parts of the country, but this is unlikely to benefit crop conditions this late in the season.

### **Lesotho**

Several agricultural challenges have been experienced this season, including a delayed onset of rains, occurrence of frost in the highlands, a mid-season dry spell, and pest infestation including an armyworm infestation. These challenges are all likely to negatively affect harvest prospects this season.

## **Malawi**

After the good rains that fell in most parts of the country for much of the season, Malawi has released an estimate for maize production of 3.68 million metric tons. This represents a 1.5% increase over last season's production. Much of Malawi has generally experienced a very good rainfall season, apart from a few areas that experienced late onset of rains, and some areas that were affected by flooding earlier in the season. However, satellite image analysis does indicate dry conditions that prevailed in the north and central areas through the month of March. These dry conditions may negatively affect crops that had not reached maturity by the time the dry spell started.

## **Mozambique**

As of mid-March, reports from Mozambique indicated that crops in the central and northern parts of the country were in good condition, and good production is expected. Satellite imagery shows the occurrence of dry conditions that lasted for over 40 days in some central and northern areas, from late February up to early April. The impacts of these dry spells are as yet unknown, but crops were reported to be at grain-filling to maturation stages in several areas, so impacts may have been minimal. Mozambique faced various agriculture-related challenges this season, ranging from a delayed onset of rains, to early crop failure and subsequent replanting in the south, to flooding in major river basins, particularly in the southern areas.

## **Namibia**

A poor rainfall season in most parts of Namibia has negatively affected both crop production and the livestock sector. The poor rains resulted in reduced planted area, poor germination and wilting of crops. Namibia also experienced an infestation of army worms. The latest crop production estimates reflect these challenges, as the country is facing well below average crop production. Crop production for coarse grains (maize, millets and sorghum) is being forecast at 94,300 metric tons, which represents 27% below average, and 43% lower than last season. Grazing conditions are reported to be very poor, and some livestock deaths due to the drought conditions have already been reported.

## **South Africa**

The second round national production estimates were released in late March, indicating a 4.9% decrease in expected commercial maize compared to the first round estimate. This decrease in production was primarily due to a prolonged dry spell, which extended for over 2 months in some areas, and affected yields in many places, and resulted in crops wilting in some areas. The new production estimate equates to a 0.7% reduction in commercial maize production from the 2011/2012 season, and a 3.6% reduction in yields.

## **Tanzania**

Rainfall and satellite image analysis suggests that the second season in the bimodal areas is now underway, with rains having been received in some of the bimodal areas in March, although other areas received low rainfall, according to reports. This generally facilitated land preparation and planting in different areas. Rains were delayed in some of the bimodal areas however, and late planting was reported. Reports from Tanzania indicate that some of the bimodal areas experienced

long dry spells and subsequently poor first season (*Vuli*) harvests. In the unimodal areas, crops were reported to be in generally good condition, ranging from advanced vegetative to full maturity. However, dry conditions were experienced in some of the central parts of the country, resulting in poor crop conditions and anticipated yields in those areas, according to agromet reports. Pasture and water availability for livestock were reported to be in good condition.

## **Zambia**

National reports indicate continued negative impacts of the extended dry spell in Zambia, particularly in the southern areas. The greater impact was on the late planted crop, with reports of permanent wilting in some areas. Zambia experienced various other agricultural challenges this season, including, dry spells in the early part of the season, late distribution of agricultural inputs, water logging in some areas, and an early armyworm infestation in many parts of the country which led to extensive replanting. In the northern half of the country, where good rainfall distribution occurred, the maize crop was reported to be performing well. However, localized showers being received in areas where the mature crop now needs to be drying out may lead to negative impacts such as cob-rot should the showers continue.

## **Zimbabwe**

A prolonged dry spell that affected the southern half of Zimbabwe from late January and through the end of March has resulted in permanent wilting and complete crop failure in some areas. Many northern areas however received good rains, with positive implications for crop conditions, although leaching and subsequent nutrient deficiency due to excessive January rains may result in a reduction in expected yields. Preliminary reports indicate that area planted to major food crops decreased from last year, due to various constraints including delayed onset of rains. These and other challenges such as armyworm infestation are likely to negatively impact overall crop production this season.