Food Security Early Warning System

Agromet Update

2014/2015 Agricultural Season

Issue 02 Month: November **Season: 2014-2015** **3-12-2014**

Highlights

- **Short season (*Vuli*) in bimodal areas of northern Tanzania starts well**
- **Good late-November rains in south-east Botswana and north-west South Africa help to ease dry conditions**
- **Delayed onset of rains in southern Malawi, central Mozambique, eastern Zambia, and northern Zimbabwe**

Regional Summary

The rainfall season started off with mixed performance this season. In October and November, low rainfall was received in the eastern/central parts of the region, as denoted by the red circle in Figure 1. Areas which are affected by these dry conditions include southern Malawi, central Mozambique, eastern Zambia and northern Zimbabwe. The poor rains in this area present a similar picture to the erratic and delayed onset of rains that occurred during the 2013/2014 season, though this was subsequently followed by good rainfall for the remainder of the season. In contrast good rainfall has been received in many of the bimodal rainfall areas in Tanzania, as indicated by satellite rainfall estimates, suggesting a good start to the short season *Vuli* rains.

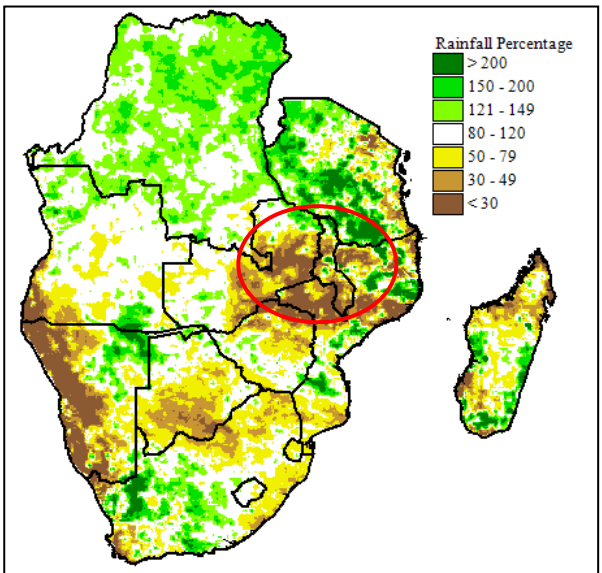

Figure 1. Rainfall for 1 Sep to 20 Nov 2014 as percent of average. *Source: USGS/FEWSNET*

The dry conditions in the eastern/central parts of the region continued in the third dekad of November (red circle, figure 2). The dry area expanded to include much of Zambia, Zimbabwe, Malawi, and Mozambique, as well as eastern Botswana and northern South Africa. Below average rainfall conditions are forecast to continue through to mid-December in many of these areas, according to NOAA NCEP forecasts. This implies possibility of a late and erratic onset of rains in some areas, which could compromise crop production if the dryness extends for a long period of time. In contrast, parts of South Africa and Botswana have been receiving good rainfall in late November, as denoted by the blue colours in Figure 2. These areas include the maize regions of central South Africa, as well as the south-eastern areas of

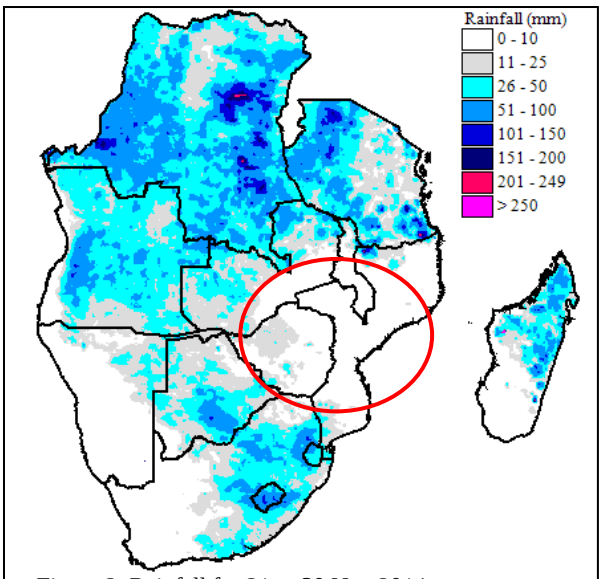

Figure 2. Rainfall for 21 to 30 Nov 2014 *Source: NOAA/FEWSNET*

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Botswana which were affected by hydrological drought in the last few seasons. The good rains will help to alleviate the water situation, as well as to replenish soil moisture. Parts of central Angola, which were also experiencing low rainfall earlier in the season, experienced some improvement in rainfall in mid-November, which will help alleviate the dryness, as these rains are forecast to continue in the short term, through mid-December. Parts of Angola experienced a poor 2013/2014 season, and the forecast rains will help to improve the situation.

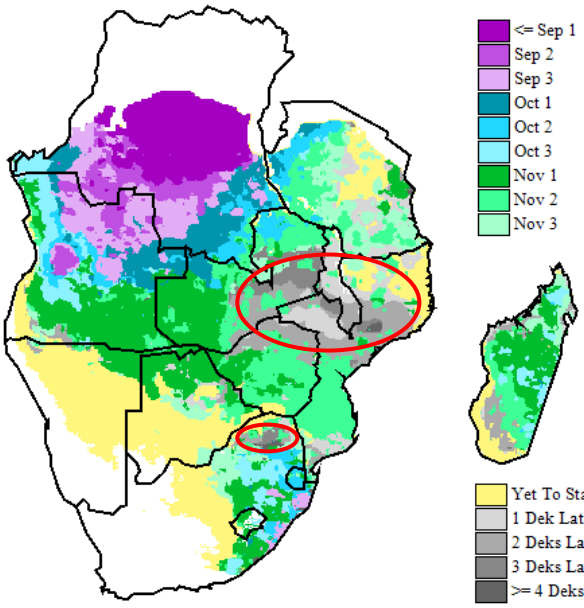

Figure 3. Onset of rains and anomaly as of 30 November 2014 *Source: USGS/FEWSNET*

The rains received by end of November have been sufficient to facilitate planting for many parts of the region, as indicated by the purple, blue and green colours in Figure 3. These areas experienced an onset of rains in November (green colours), October (blue colours) and by September (purple colours). The onset of rains has been delayed in parts of eastern Zambia, southern Malawi, central Mozambique, and northern Zimbabwe as denoted by the grey colours in Figure 3 (circled in red). In eastern Zambia, the delay in onset of rains is up to 3 dekads (approximately 30 days), as of 30 November, while in surrounding areas, the delay in onset is 2 dekads. Short term forecasts however suggest that the delay in onset in these areas will continue until at least early December. The current low rainfall, combined with the forecast conditions warrant maintaining a close watch on the progress of the season. Isolated areas in northern South Africa (red circle, Figure 3), have also experienced a late onset of rains of up to 3 dekads (approximately 30 days). Recent rains in mid- to late-November in central South Africa may help to alleviate the situation in some areas. Onset delays of a long duration reduce the window of opportunity for crops to grow and successfully reach full maturity before the cessation of rains at the end of the season, or before the onset of mid-season dry spells, which are a common occurrence in some of these areas. In the event of a prolonged delay in onset, early maturing varieties and crops are more likely to reach maturity than late-maturing varieties.

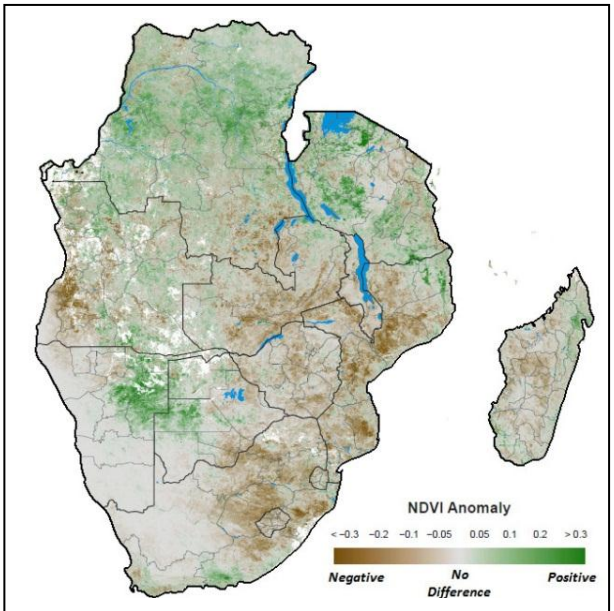

Figure 4. Vegetation Index (NDVI) compared to average conditions for 1 – 10 Nov 2014 *Source: USGS/FEWSNET*

Due to the low rainfall received early in the season, and the poor rainfall in previous seasons, vegetation conditions are below normal in many parts of the region, according to satellite imagery (brown colours, Figure 4). In many of these areas, vegetation started off in near normal condition after a good season last year, but became increasingly worse than average due to the early-season low rainfall. Despite the poor seasonal progress observed in several areas mentioned above, it is worth noting that there is still ample time left in the season for good production if the remainder of the season performs well.

A recent forecast update from the SADC Climate Services Centre is predicting normal to above-normal rainfall in most parts of the region for the period December 2014 to February 2015. This

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excludes north-eastern Tanzania, and eastern Madagascar, where normal to below-normal rainfall is forecast. For the January to March period, national forecasts from several countries indicate elevated chances of normal to below normal rainfall occurring. These include Botswana, north-eastern Namibia, south-western Zimbabwe, much of South Africa and southern Malawi. The national forecast for southern Zambia is also indicating enhanced chances of normal rainfall, compared to the rest of the country, which is forecast for normal to above normal rainfall. These areas represent a mainly contiguous region in the southern half of the region facing elevated chances of normal to below-normal rainfall, as identified by the national forecasting agencies. Low rainfall associated with extended dry spells can negatively affect agricultural production, and climate-smart agriculture strategies are needed to mitigate the impacts of such climate variability.

Oceanic and atmospheric conditions in the Pacific Ocean remain close to El Niño thresholds, with a 58% chance that an El Niño event will occur during the 2014/2015 season, according to a consensus forecast issued in November by US-based climate forecasting centres. This represents borderline chances that El Niño conditions may occur this season. Although an El Niño event has not been declared, El Niño-like impacts have been observed in parts of the world, according to international climate centres. El Niño, a large scale climate phenomenon with global impacts, is often associated with reduced rainfall in some parts of southern Africa. Historically, not all El Niño events have resulted in low rainfall in the region, with some areas being more regularly affected than others.

Users of climate information are advised to contact their national meteorological and hydrological services for climate forecast updates, detailed, agrometeorology-specific interpretation of climate forecasts, and advisories.

National Agrometeorology Summaries

Angola

Rains have started in most parts of the country, particularly the central parts of the country, which are the major cereal production areas. However, rainfall totals remain generally below normal in many of these areas. Parts of Angola have experienced poor rainfall over the last few seasons, with negative impacts on crop and livestock production.

Botswana

After receiving low rainfall in October and early November, south eastern and central parts of Botswana received good rainfall towards the end of November. The good rains received help to alleviate the low water availability conditions which have prevailed in south-eastern areas due to poor rainfall over the last few seasons.

Lesotho

On average, Lesotho received good rains in the month of November, marking the onset of rains in many areas. Good rains were received in the first and last dekad of the month, with relatively drier conditions mid-month. With the good rains received, farmers in most areas had commenced ploughing and planting activities by mid-November.

Malawi

Most parts of Malawi had not yet experienced an onset of rains by the end of November. On average, the onset of rains occurs in mid-November in southern Malawi and late November to early

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Deccember in northern Malawi. As such, the onset of rains in southern Malawi is slightly delayed, with short term forecasts suggesting that the dry conditions may continue into at least early December. As of early November, the main agricultural activity in Malawi was reported to be land preparation and procurement of inputs, in preparation for the expected onset of rains. The forecast from the national meteorological agency indicated likelihood of normal rainfall during the season. However, some areas were forecast to have a possibility of normal to below-normal rainfall, and farmers have been advised to practice climate-smart agriculture.

Mozambique

Rains started falling in mid-October, with widespread rainfall in the southern and central regions of the country which allowed for initial planting especially in the southern region. However, during the following two dekads (20 days) the intensity of rains reduced significantly, though the weak intermittent rains and relatively low temperatures helped to keep the planted crops in good conditions. Widespread rains during the second dekad of November provided enough moisture for the planted crops, and favored new planting in south and central regions. The northern region is expecting to start planting in early to mid-December, which is the normal onset of rains.

South Africa

After the low rainfall received in October, rains improved considerably in November, particularly in the central and north-western parts of the country. There were some areas however where rainfall was well below normal, particularly in the northern parts of the country. In a few of these areas, the season was more than 30 days late by end of November. As of mid-November, farmers in some of the central areas had completed land preparation and were awaiting more rains before planting. The livestock and pasture conditions were reported to be fair in most parts of the country, except in the northern-most, southwestern-most, and some central parts of the country. Conditions are however expected to improve in the central areas, with the recent rains that fell in November. National forecast updates indicate that the second half of the season is likely experience below normal rainfall with warmer temperatures, which will necessitate water conservation farming methods, and may affect yields.

Tanzania

Generally good rainfall has been received in the bimodal areas since the beginning of the *Vuli* (short season) rains, and maize crops were reported to be in good condition. As of mid-November, maize crops in some bimodal areas were reported to be ranging from the late vegetative stage to flowering stage. Water and pasture availability were also reported to be improving in the bimodal areas. In the unimodal areas, land preparation and acquisition of inputs was reported to be ongoing as of mid-November. The season generally starts in late November to early December in most of the unimodal areas.

Zambia

Below-normal rainfall has been recorded in eastern Zambia since October. The below normal rainfall has been associated with a delayed and erratic onset of rains. In some areas, the onset of rains had been delayed by at least 30 days. Forecasts from the Zambia Meteorological Services suggest an increase in rainfall activity in early December, which will help to alleviate the dry conditions and cause the onset of the rains.

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Zimbabwe

Below average rainfall was received in many parts of the country in November, particularly in the northern areas, which have not yet experienced an effective onset of the rainfall season and was 20 days late by the end of November. The third dekad of November was quite dry in most parts of the country, and short term forecasts suggest a continuation of the dry conditions into early December.

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