Food Security Early Warning System

Agrometeorological Update

2011/2012 Agricultural Season

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Highlights

- Rainfall season starts in most parts of the SADC region
- Abnormal dryness in Lesotho and parts of South Africa, and northern Zimbabwe negatively affects start of season
- Forecast update suggests higher chances of normal to above normal rainfall in most areas

Regional Summary

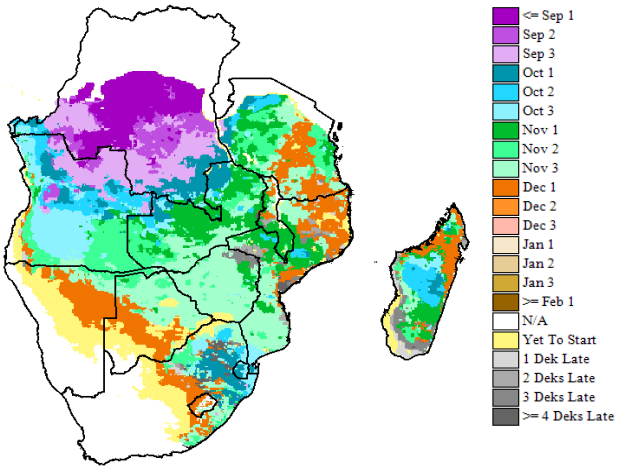

Figure 1a. Onset of Rains as at 10 Dec 2011

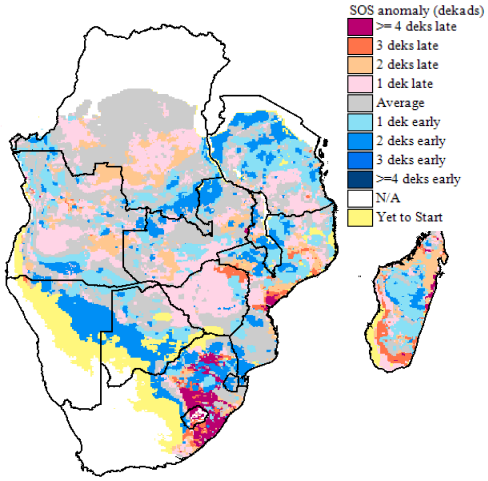

Figure 1b. Onset of Rains anomaly as of 10 Dec 2011

By 10 December, most areas in the SADC region had experienced an onset of rains. In Figure 1a, purple colours indicate areas where the onset of rains occurred in September, blue in October, green in November and orange in December. The grey areas in Figure 1a show areas where the season should have started by now (compared to the average onset of rains), but has not yet started, with increasingly dark shades of grey indicating an increasingly delayed onset. Most areas have thus received their expected onset rains by now, although some areas, including notably parts of northern South Africa, central Mozambique, and northern Zimbabwe, the season is still delayed. In some of these few areas, the season is more than 30 days late, and is still pending. Significant rains were received in quite a few areas in the first dekad of December, facilitating a possible December dekad 1 onset of rains (orange colour, Figure 1). However, in some of these areas, especially parts of Lesotho and South Africa, the season had been delayed by more than 40 days (maroon colors, Figure 1b). Implications of this delayed start are a reduced growing season, if the season ends at the normal time in 2012. Areas around Lesotho also experience an increased risk of frost later in the season if the onset of rains is significantly delayed.

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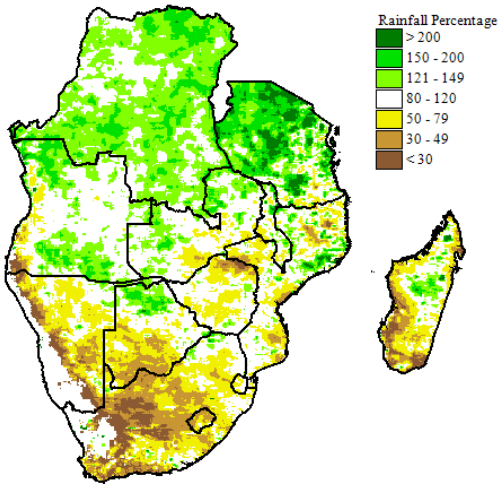

Figure 2. Rainfall for 1 Sep – 10 Dec 2011 as percent of average

The rains received in the first 10 days of December were potentially sufficient to allow planting in several areas, and were widespread in many parts of the region. However, some areas did not receive significant rainfall during this period, including parts of southern Malawi, southern Mozambique, northern South Africa, and much of Zimbabwe. Follow-on rains will be needed soon to allow establishment of any crops that were planted after the November dekad 3 rains that were a potential onset in parts of southern Mozambique and many parts of Zimbabwe.

Despite the recent rains in the southern-most parts of the region, many areas are currently experiencing below-average, low moisture conditions, both on a cumulative basis since the start of the season (Figure 2), and on a short-term basis when considering the likely soil moisture status (Figure 3). Figure 2 shows that on a cumulative basis, much of South Africa and parts of Zimbabwe (in particular northern Zimbabwe, and the southern half of Madagascar have received below normal rains since the beginning of the season (Figure 2, brown colours). Arid areas have been masked out from the analysis.

Figure 3 show the soil water index estimates, based on a water balance model. The index suggests that much of northern South Africa, and the area in central Mozambique/northern Zimbabwe/southern Malawi has very low soil moisture, (orange colours), or has not now has a delayed start of season which has not yet started (Figure 3 - bright pink, and Figure 1a – dark grey). These areas are marked out very roughly by the green ovals in Figure 3. The significance of the currently delayed start of season is a prolonged delay in the planting dates, which will potentially decrease the crop growing window due to a shortened rainfall season. Both the low moisture areas and the currently delayed onset areas may be affected in terms of water availability, crop condition and pasture as well. Some country reports have indicated that poor germination occurred in some of these areas.

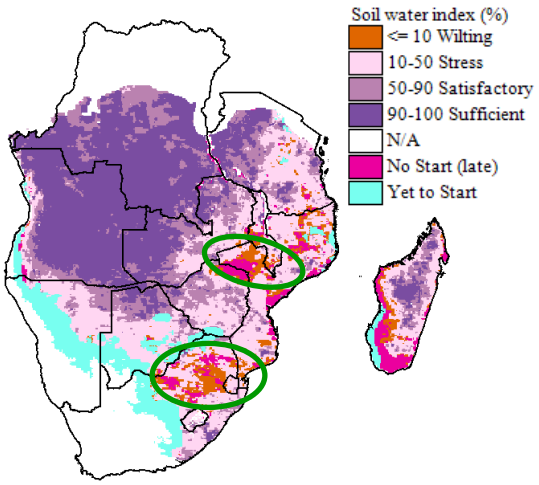

Figure 3b. Soil water index estimates as of 10 Dec 2011

The SADC Climate Services Centre rainfall forecast for the December-February period indicates that there are good chances of above-normal to normal rainfall occurring in most parts of the region, especially in the southern parts. This provides good chances for a turn-around in the second half of the season, particularly in the southern areas that are currently being affected by a poor onset, if good rains occur on time. Northern Tanzania is being forecast to have greater likelihood of normal to below-normal rains, particularly in the bimodal areas in the north.

Agricultural Activity

Malawi

Reports from Malawi indicate that the rains that have been received so far have facilitated land preparation and some farmers have managed to plant, where sufficient moisture was received. The maize crop was reported to be doing well at germination to vegetative stages. However, spatial distribution of rainfall was reported to be poor and erratic. Coupled with high temperatures, and the poor rainfall in the second dekad of November, there were reports of moisture depletion in some areas.

Mozambique

Reports from Mozambique indicate that crops were generally in a good state of development, with crops in most areas ranging from initial to vegetative stage.

South Africa

Below-normal rains were received in most parts of the country during November, excluding the coastal areas, and northern-most South Africa, where above-normal rains were received. Vegetation conditions were particularly below normal especially in the central/eastern parts of the country, including Free State province. The rainfall onset has been poor and erratic in many of these areas.

Zambia

Good rainfall was received in most parts of the country during November to allow establishment of the rainfall season in most areas. Reports indicate that the planting of maize has been completed in most parts of the country. However, in some of the eastern parts of the country, insufficient rains had been received, and some farmers had not yet planted by end of November.

Zimbabwe

Dry conditions persisted over many parts of the country, particularly in the northern parts of the country. Dry planting of most crops intensified in November, as many areas of the country did receive effective rains. Due to the dry conditions, coupled with the high temperatures experienced, crops which had been planted were showing signs of moisture stress.