



Food Security Early Warning System Agromet Update



2018/2019 Agricultural Season

Issue 01 Month: November

Season: 2018-2019

15-11-2018

Highlights

- Most parts of the region are experiencing a slow start to the rainfall season, with below average early rainfall received early in the season
- Short term forecasts suggest that the slow onset of rains will continue until at least late November, potentially delaying planting of summer season crops in several areas
- Seasonal forecasts suggest high chances for normal to below normal rains in many areas this year, with implications for crop production potential

Regional Summary

Most parts of the region received below average rainfall between September and early November (Figure 1, yellow and brown colours), with the negative anomalies being most pronounced in central Angola, Lesotho, central and eastern Madagascar, central Mozambique, eastern South Africa, and central Zimbabwe. In most areas, early season rains received in October and early November typically facilitate agricultural land preparation and planting. The below average early-season rains experienced this year are likely to delay land preparation and planting in some areas, and in regions where farmer have already planted, cause early season moisture stress for crops. In contrast, the northern-most parts of the region received above average rains accumulated from September to early November, particularly north-western Angola and central DRC (Figure 1, green colours). Eswatini also received rains in early November, which however were generally insufficient to benefit cropping activities.

Despite the low rains received in most areas, the situation is not yet a serious cause for concern, as planting rains are generally received in November, particularly in most southern and central parts of the region. The exception to this is the eastern parts of South Africa, and some parts of Eswatini and Lesotho, and central Madagascar, where seasonal rains typically start in October. Figure 2 shows areas where rains were sufficient to commence planting, and the dekad in which the rains were received. In some of the areas that received good rains in late October, such as parts of Angola and South Africa, consistent follow up rains are still required before the end of November in order to avoid severe early season moisture stress and false starts which would necessitate replanting.

The onset of rains has been delayed by 20-40 days in some eastern parts of South Africa, central Madagascar

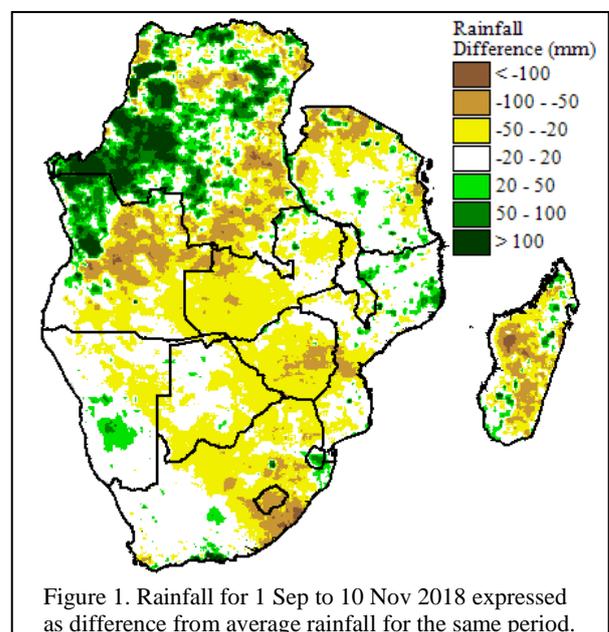


Figure 1. Rainfall for 1 Sep to 10 Nov 2018 expressed as difference from average rainfall for the same period.

Source: USGS/FEWSNET

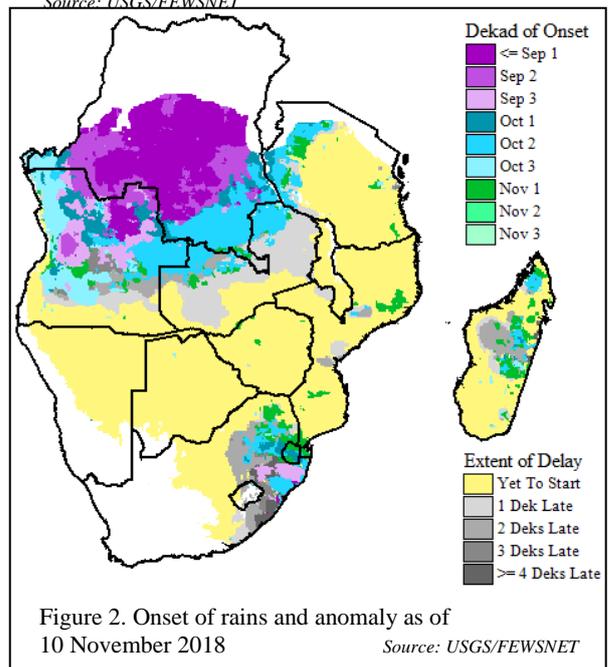


Figure 2. Onset of rains and anomaly as of 10 November 2018

Source: USGS/FEWSNET

and central Angola (dark grey colours, Figure 2). In northern/central parts of the region including much of Zambia, where rains typically start in early November, rainfall is at least one dekad late, and short-term forecasts suggest the rainfall onset delay may extend further. Extensive delays of the onset can compromise the season quality, resulting in crops failing to reach maturity before the growing season ends, either due to the cessation of rains, or due to the onset of cold conditions that are not conducive to the growth of cereal crops.

The below average rainfall received in many parts of the region in the last few weeks has resulted in a slow re-greening of vegetation, including pastures, in many areas in the southern half of the region. Figure 3 shows a satellite based vegetation index (the normalized difference vegetation index, or NDVI) expressed as percent of normal. Green colours show above average conditions while yellow/brown colours show below average conditions, and white coloured areas were obscured by clouds.

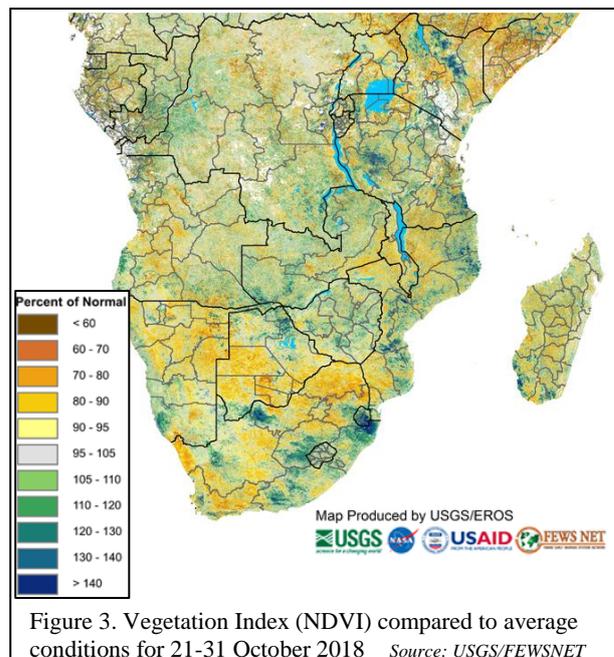


Figure 3. Vegetation Index (NDVI) compared to average conditions for 21-31 October 2018 Source: USGS/FEWSNET

In several areas in the southern half of the region, vegetation was below average at the end of October. Areas with below average NDVI will require close monitoring, especially those areas where livestock is an important source of food and livelihoods, and NDVI is indicative of pasture conditions. These areas include parts of Angola, Botswana, Namibia and South Africa. However, October is still very early in the season, and there is chance of recovery of relative vegetation greenness if good rains are received soon. Close monitoring of pasture conditions throughout the season will be important in light of the forecast for normal to below normal rainfall.

The SADC seasonal rainfall forecast released at the Southern African Regional Climate Outlook Forum (SARCOF) in August predicted that most parts of the region are likely to receive normal to below normal rainfall between October 2018 and March 2019. In contrast, central/northern parts of the region were forecast to have normal to above-normal rainfall. This forecast strongly agrees with several national forecasts that were released in September soon after SARCOF. For example, Botswana and Zimbabwe issued seasonal forecasts for normal to below normal rainfall throughout the season, although some areas leaned more strongly towards below normal rainfall. The 2018/2019 rainfall forecasts also align with the forecast 2018/19 El Niño event, which is currently rated at between 75% and 84% chance of occurrence during the rainfall season, according to the latest official NOAA forecast. El Niño is typically associated with below average rainfall and above average temperatures in the southern half of the region, while northern areas usually receive above average rainfall. However local and regional climate drivers can sometimes change this typical outcome, which deviations are captured in seasonal forecasts. Users requiring higher accuracy forecasts should contact the respective national meteorological agencies for downscaled national seasonal forecasts and updates.

Normal to below normal rainfall forecasts for the first half of the season highlight the possibility of erratic rainfall onsets. Rainfall to date, combined with short term forecasts, suggest that many areas are unlikely to receive planting rains until at least late November, potentially delaying planting. The forecast for normal to below normal rainfall in the southern half of the region suggests increased chances for crop moisture deficits that can negatively affect crop production in some areas, depending on distribution and amount of rainfall that will actually occur. The SADC CSC Early Warning Bulletin issued in August 2018 soon after SARCOF gave a raft of recommendations for actions that could be taken to mitigate the impacts of these forecast conditions. For agriculture, these included crop diversification, appropriate mix of drought tolerant and high-yield crop varieties, staggered planting, timely availability of agricultural inputs, climate-smart agricultural practices, and drought-related de-stocking mechanisms, among others.

With regards to winter cereal crops, reports from the GEOGLAM Early Warning Crop Monitor (<https://cropmonitor.org/>) suggest that crop conditions for winter wheat in Zambia, Zimbabwe and much of

South Africa have been favourable throughout the winter season. However, winter wheat production expectations are lower in Zambia due to a reduction in planted area.