



Food Security Early Warning System Agromet Update



2019/2020 Agricultural Season

Issue 04 Month: February

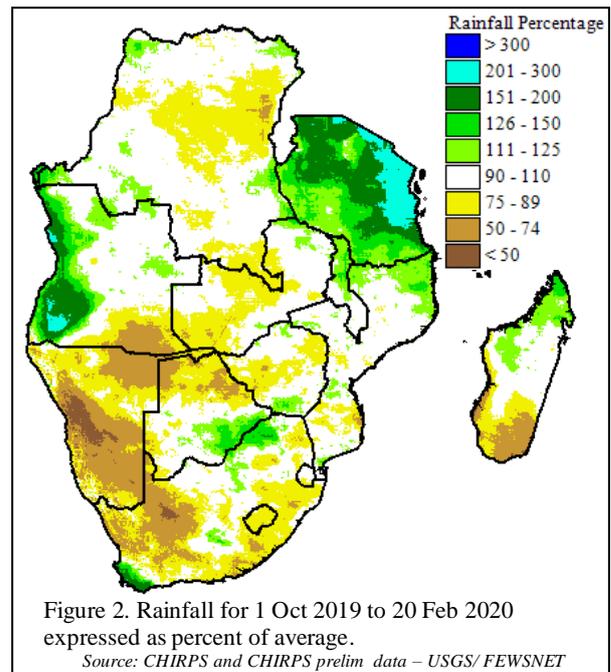
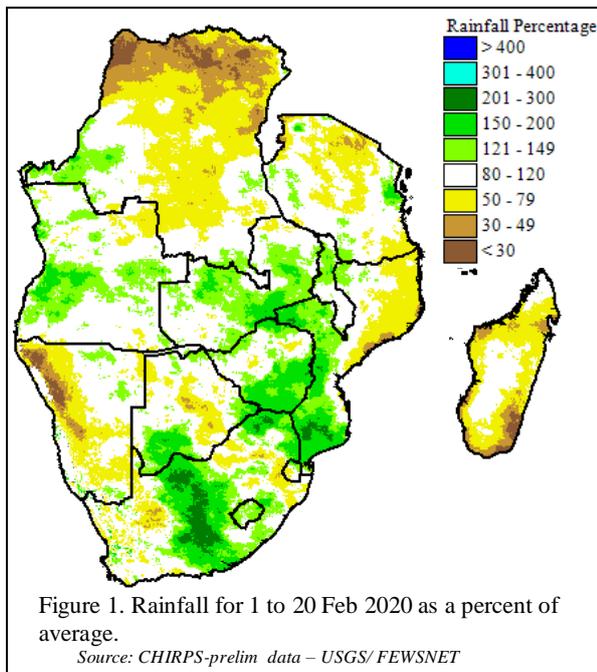
Season: 2019-2020

28-02-2020

Highlights

- Rainfall improved in central parts of the region in February, benefitting crop conditions for some areas, but for many crops in southern Zimbabwe and southern Mozambique, the rains came too late to save the crop from permanent wilting
- Replanting in Zimbabwe in mid-January has presented some limited chances of slightly improved harvests if the current rains extend until April. However, short term forecasts suggest low rainfall in the next few weeks
- Despite improvement in vegetation conditions after the January and February rainfall, seasonal accumulation of vegetation indices remains below average, with poor grazing conditions in a number of areas including Namibia and southern Zimbabwe

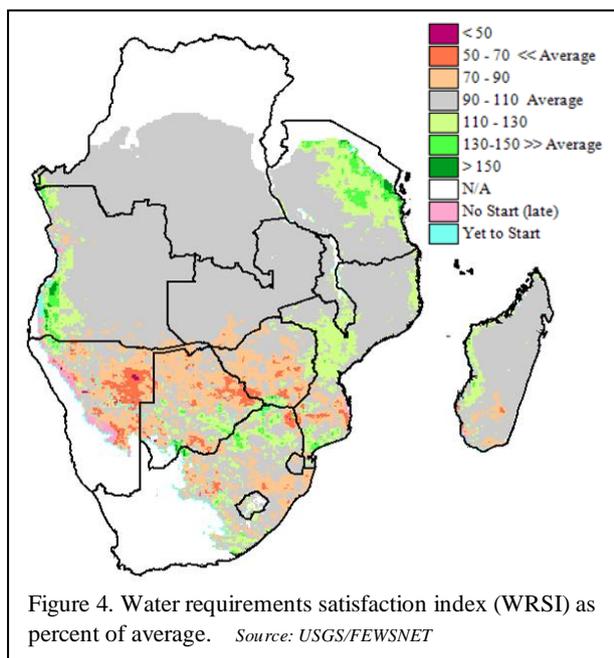
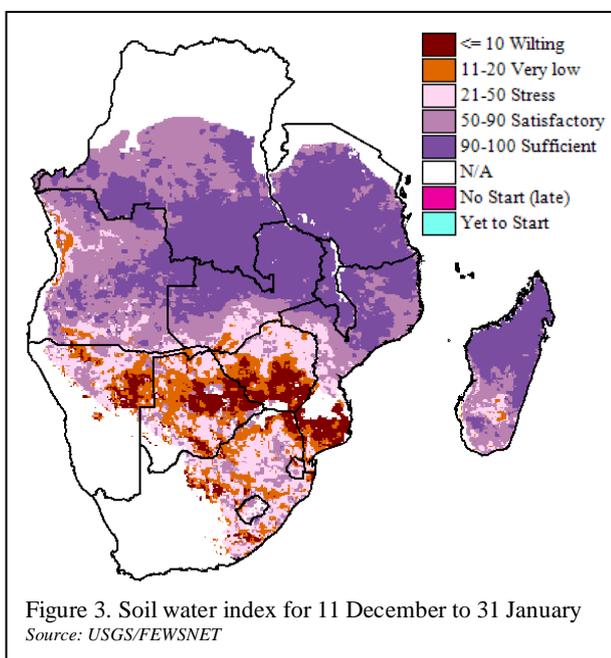
Regional Summary



Rainfall for the first 20 days of February was average to above average in most parts of the region (Figure 1), except for central Botswana, western Namibia, northern Mozambique, and parts of Madagascar. The moderate to high rainfall received in most other areas resulted in significant improvements in seasonal rainfall totals, which had been well below average only a month ago, but are now near normal to slightly below normal in most areas excluding Namibia, south-eastern Angola, western South Africa, north-eastern Botswana, and southern Madagascar (Figure 2). The significant rainfall in January and February in most areas is contributing to improvement in water availability and leading to pasture regrowth. However, in areas where significant pasture degradation had occurred, the pasture regrowth will take a long time. In areas such as southern Zambia and northern Zimbabwe, where moisture stress had been occurring by early January but permanent wilting had not yet occurred, the January and February rains have improved crop conditions significantly, and averted permanent wilting. However, in areas like southern Zimbabwe and southern Mozambique where dry conditions had been severe, many crops had reached permanent wilting point, and the recent rains will make little difference to the crop conditions.

Reports indicate that in some of the areas where little planting had been done due to dry conditions, or where permanent wilting had occurred, planting and replanting of maize crops respectively was done with the January rainfall. While in the past, some January planted crops have successfully reached maturity and resulted in good harvests, statistically the chance of this occurring is low, since rains normally start winding down in late March. Short term forecasts suggest that low rainfall is likely through early March in some central parts of the region areas, further reducing chances of a successful January-planted crop. Given the late planting/replanting that occurred, it will be essential to closely monitor March and April rainfall in order to determine if the late-planted crops successfully reach maturity. In the event that late planted crops do reach maturity, the delay in harvests will nonetheless extend the lean season significantly for many farming households who planted late.

Figure 2 also indicated that some areas are still experiencing well below average seasonal rainfall totals. In these areas, impacts are expected to continue to intensify for grazing and water availability. These areas include much of Namibia and south-eastern Angola, as well as southern Madagascar and parts of northern Botswana. The continuing dry conditions come on the backdrop of droughts that have recurred in the majority of the last 5 years, resulting in a loss of coping capacity and resilience of affected farming households, as well as deterioration of pastures and a reduction in surface and ground-water levels.



A recent analysis showing approximately 50 days of a soil water index highlights potential impacts that the long dry conditions in central parts of the region had on crop growing conditions. Figure 3 shows one estimate of soil water as a percent of the soil water holding capacity. This parameter is referred to as the soil water index (SWI). The analysis suggests that on average, the SWI was below 20% in many areas, a value loosely associated with significant moisture stress, and in some cases, wilting. The analysis suggests that in much of southern Mozambique, southern Zimbabwe and eastern Botswana, crops experienced severe moisture stress. This is corroborated by reports of wilting that were received from some of these areas.

The extensive dry conditions experienced in central parts of the region have resulted in below average WRSI (Figure 4). These areas include parts of Botswana, southern Mozambique, southern Madagascar, Namibia, parts of South Africa, southern Zambia, and Zimbabwe. As WRSI shows the extent to which crops have received the water that they needed throughout the growing season for crop growth and production of grain, crops experiencing below average WRSI may also experience higher than normal water-deficit related reductions in yield. Crop assessments on the ground in the affected countries will provide greater clarity on the crop conditions in those areas, and harvest potential this season.

In contrast to the low rainfall and high moisture deficits experienced in the areas noted, some productive parts of the region have continued receiving favourable rainfall for crop growth, including some of the main maize

growing areas of South Africa, as well as high maize-producing areas of Zambia and Malawi. In Malawi however, reports indicate that Fall Armyworm, African Armyworm, flooding and waterlogging have also affected crop conditions in some areas, particularly in the north where high rainfall was received.

As a result of the high rainfall that occurred in January and February, several areas also reported flash flooding and/or widespread flooding. Flooding was reported from January in several countries including Angola, DRC, Madagascar, Mozambique, Malawi, Namibia, South Africa, Zambia and Zimbabwe. While the type of flooding recorded was flash floods in most areas, some areas such as parts of DRC, Madagascar and Mozambique reported widespread floods. As late as February, reports of flooding were noted from Mozambique, Malawi, South Africa, Tanzania and Zimbabwe. The flooding in some cases destroyed crop fields, and large areas of crop area loss were noted in January in Mozambique.

Vegetation conditions have continued to improve in most parts of the region after recent rains that were received in January and early February 2020. However, the November 2019 to January 2020 vegetation index map (Figure 5) suggests that seasonal vegetation conditions are still below average in many areas, including some areas where grazing lands are the predominant land-cover, and livestock rearing is a major source of livelihoods. This implies below average grazing conditions in some important livestock areas, including parts of northern Botswana, Lesotho, southern Madagascar, southern Mozambique, much of Namibia, western South Africa, southern Angola, southern Zambia, and parts of Zimbabwe. In particular, poor grazing conditions are noted in many parts of Namibia and southern Zimbabwe, where pastures have been decimated by recurrent droughts over the last 5 years. In some of these areas, rainfall has been well below average this season, as well as in three out of the four preceding seasons from 2015/16 to 2018/19. High rates of drought-related livestock deaths have been reported as a result.

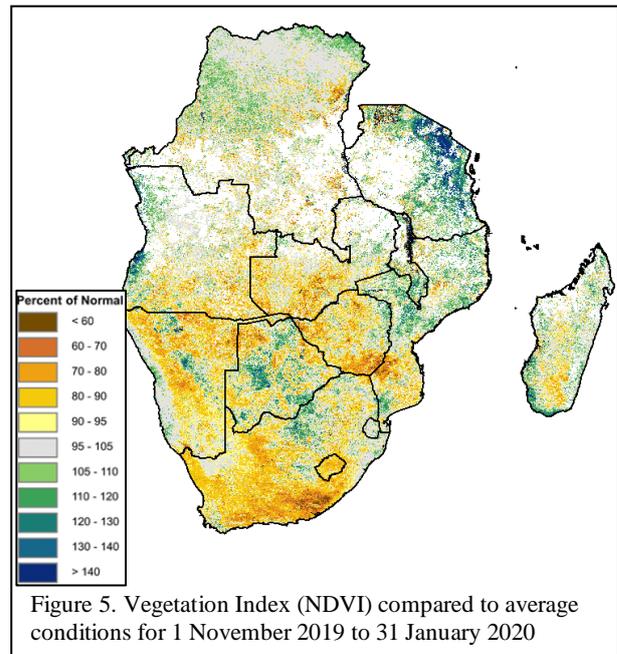


Figure 5. Vegetation Index (NDVI) compared to average conditions for 1 November 2019 to 31 January 2020