



# Food Security Early Warning System Agromet Update



## 2015/2016 Agricultural Season

Issue 07

February/March update

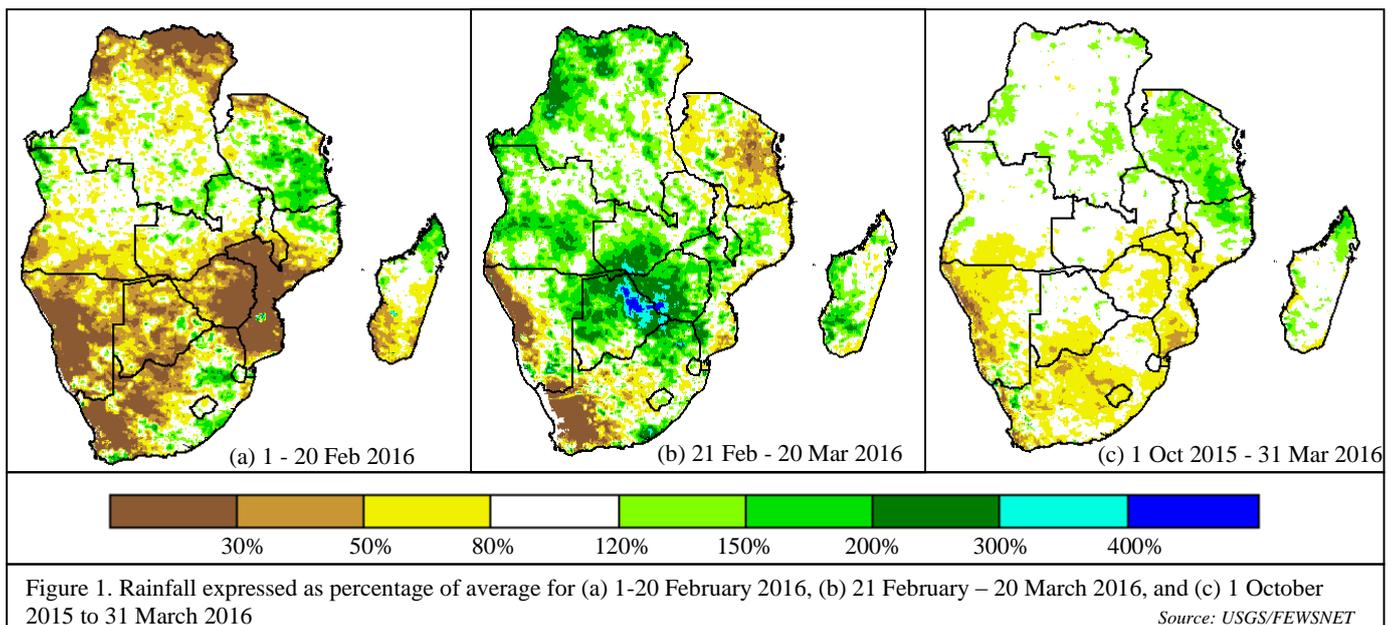
Season: 2015-2016

8-04-2016

### Highlights

- The first half of February was characterized by very dry conditions in the southern half of the region, further reducing harvest expectations
- Very high rainfall was received between late February and mid-March in most parts of the region. The rainfall helped to increase water supply, and may improve pasture conditions. However, the rains were generally too late to improve crops that had succumbed to the hot, dry conditions in many areas
- Below normal rains were received in much of Tanzania, northern Malawi and northern Mozambique between late February and mid-March. Despite the dry conditions, reports indicate that good soil moisture build-up prior to the dryness allowed crops in some of these areas to survive the dry spell, and there are still good production prospects in some north-eastern parts of the region
- A reduction in the rains in most parts of the region is expected, with the rainfall season typically ending by late-March to mid-April in most areas

### Regional Summary

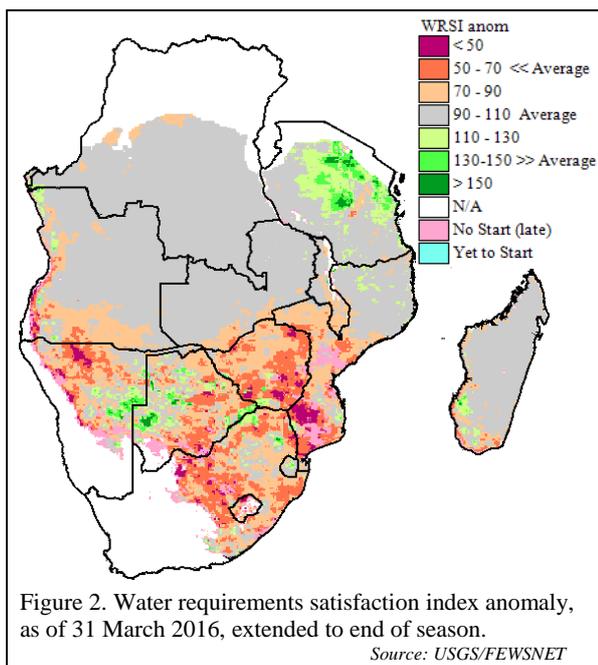


The regional drought associated with the El Niño strengthened considerably in the first 20 days of February (Figure 1(a)). Dry conditions continued affecting southern and central Mozambique, most of Botswana, Namibia and Zimbabwe, southern Malawi, south-western Madagascar, western half of South Africa, southern Angola and southern Zambia. The low rainfall in these areas, combined with high temperatures negatively affected crop conditions, leading to moisture stress and wilting. This has resulted in further reductions in expected production, which had already been impacted by low area planted, moisture stress and wilting earlier in the season. During this period, other areas received normal to above normal rainfall, including much of Tanzania, northern-most Mozambique, northern Zambia, and the eastern half of South Africa.

Following the dry conditions in early-to-mid February, heavy rains set in across most parts of the region for close to 30 days, between 21 February and 20 March (Figure 1(b)). In parts of eastern Botswana and south-

western Zimbabwe, the rainfall was 3 times the normal amount for this period, while in northern Botswana, parts of southern Angola, northern South Africa, southern Zambia and western Zimbabwe, rainfall was close to 2 times the normal amount. Most areas received above-normal rainfall during this period. The rains received helped to increase the amount of water available for human and livestock use, as well as improving pasture conditions. However, the high rains in the southern areas generally skirted Lesotho and Swaziland, which have been experiencing very low rainfall and severe water availability constraints since the beginning of the season. The water availability challenges in these areas are therefore likely to continue. Tanzania, northern Malawi, northern-most and south-eastern-most parts of Mozambique, which have generally been receiving good rains for much of the season, received below average rainfall during this period. In-country reports from Malawi and Mozambique indicate that despite the recent dryness in the northern parts of these countries, crops are generally performing well due to earlier build-up of soil moisture in these areas. Western and central parts of South Africa also registered low rainfall during the same period. Late March saw a large decrease in rainfall activity in most parts in the southern half of the region, consistent with the ending of the season, which is typically expected between late March and mid-April in many of these areas. However, some central and eastern parts of the region received well-above average rainfall in late March, including Madagascar, central and eastern Mozambique, Zambia and north-eastern half of Zimbabwe.

Despite the increase in rainfall in late February to late March in various areas, seasonal rainfall totals are still below average in most of the southern half of the region, except for some central areas including much of Botswana, eastern Namibia, northern South Africa, western Zambia and western Zimbabwe (Figure 1(c)). Water availability for human and livestock use is therefore likely to remain at low levels in many areas, particularly given the excessive temperatures that have prevailed during much of the current season, as well as the poor rains that were received in the previous season.

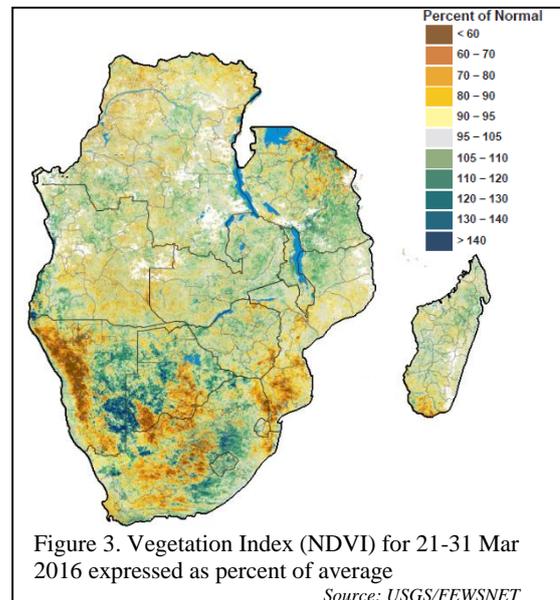


Short term forecasts through to mid-April suggest the onset of dry, warmer than average conditions in the southern parts of the region, while central parts of the region are expected to receive seasonally low rainfall during this time, expect for a few areas in the east which should get above average rains. Temperatures in the central parts are forecast to be below average. Although warmer than average conditions are forecast for the south, temperatures are not expected to be as high as they were earlier in the season, due to a gradual shift to the cold season in the southern hemisphere occurring. This will provide favourable conditions for reduced evapotranspiration, thus allowing better retention of the recently received rains. The lower rainfall forecast may be indicative of the end of the rainy season, which usually occurs in most areas in the southern half of the region by late March to mid-April.

The high rains received in late January to mid-March were generally too late to benefit crops in many areas, as crop agriculture had already been negatively affected by the preceding dry conditions, with many places not having been planted due to the dryness, and many planted crops having wilted. In some areas where crops had not succumbed to the preceding heat and dryness, the late rains helped crops to reach maturity. Figure 2 shows the crop water requirements satisfaction index (WRSI) expressed as a percent of normal conditions. This product gives an indication of the likely impact of the seasonal rainfall distribution on cereal production in the region: Orange and maroon colours show those areas where the WRSI is below average, while grey is near average and green is above average. Pink areas include those where rains insufficient for planting were received. Much of the southern half of the region has been negatively affected, and the model suggests that yields in crop growing areas of southern Angola, Botswana, Lesotho, south-western Madagascar, southern Malawi, southern and central Mozambique, Namibia, South Africa, western Swaziland, southern Zambia and Zimbabwe will be reduced due to the hot, dry conditions experienced during the season. Yield reductions are expected to be large in many of these areas. This will be second consecutive season of low production in many

areas, after the poor 2014/2015 season. Assessments by agricultural authorities are underway in some countries in order to get more accurate production forecasts. Maize production forecasts from South Africa as of 30 March are projecting a commercial maize harvest of 7.07 million MT, which is 29% less than last year and 41% below the 5 year average. The March agrometeorological update for Swaziland quoted a maize production estimate of 33,460 MT, which is 59% less than last year, and 61% less than the 5 year average. Malawi's first official production estimate released in February, put the maize harvest at 2.72 million MT, which is 2% lower than last year, and 24% lower than the 5 year average. The Malawi harvest estimates were produced before the end of the dry spell that occurred in early-mid February.

After the heavy rains that fell between late February and mid-March, vegetation has improved considerably in many areas (Figure 3, green and blue colours). These include much of Botswana and Lesotho, eastern Namibia, eastern South Africa, and south-western Zimbabwe. In many of these areas, vegetation conditions were below normal for much of the season through to early March, but improved to between normal and above-normal conditions by the end of March (Figure 3: grey, green and blue colours). In other areas however, including parts of south-eastern Angola, southern and central Botswana, southern Madagascar, southern and parts of central Mozambique, western Namibia, western South Africa, and parts of eastern Zimbabwe, vegetation conditions remained below average (Figure 3, yellow and brown colours). Pasture conditions in these areas are expected to remain poor, but may improve marginally in some areas due to the recent rains. Reports indicate that tens of thousands of cattle in the region have died due to the drought, with some estimates putting the figure at over one hundred thousand drought-related cattle deaths in the region.



**Acknowledgements:**

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