



Food Security Early Warning System Agromet Update



2018/2019 Agricultural Season

Issue 05 Month: April

Season: 2018-2019

24-04-2019

Highlights

- The 2018/2019 season was the driest since at least 1981 in central and western parts of the region. The drought resulted in crop failure, reduced forage, and poor water availability.
- A delayed and erratic onset of rains, mid-season dry spells, and early cessation of rains in several parts of the region have contributed to poor crop production expectations in many areas.
- Tropical Cyclone Idai brought strong winds and heavy rains to Malawi, Mozambique and Zimbabwe, resulting in fatalities and severe damage, most significantly in Mozambique.
- Rainfall performance in a few north-eastern areas has resulted in good harvest prospects there.
- National crop production assessments are currently underway, and will help to quantify the impacts of the 2018/2019 seasonal performance on food availability.

Summary

A strong drought affected central and western parts of the region during the 2018/2019 rainfall season. Many parts of southern Angola, northern and southern Botswana, northern Namibia, north-western South Africa, southern and western Zambia, and north-western Zimbabwe, received their lowest seasonal (October-to-March) rainfall totals since at least 1981 (Figure 1, brown colours). The low seasonal rainfall totals observed in the region were primarily the result of (a) delayed and erratic onset of rains in several areas that resulted in reduced area planted and poor germination, (b) mid-season dry spells of varying duration that resulted in moisture stress and wilting of crops, and (c) an early cessation of rains across central areas that further exacerbated pre-mature wilting of crops. Additionally, in mid-March, Cyclone Idai destroyed hundreds of thousands of hectares of cropland in Malawi, Mozambique and Zimbabwe. Cumulatively, these factors reduced end of season production prospects due to reductions in planted area, reduced yields, and outright crop failure in some areas. At a local scale, the poor seasonal performance will have the most severe impacts in cropping areas where widespread crop failure occurred, as well as areas with pre-existing high levels of food insecurity due to poor 2017-2018 seasonal production. At a regional level, some of the most affected areas are high maize producing areas, which will negatively impact regional maize supplies. In many countries, survey teams are currently in the field generating crop production estimates that will better quantify the availability of food crops at sub-national and national level.

The drought also affected water supplies for domestic, industrial and agricultural (irrigation and livestock) usage. Forage for livestock was also negatively impacted, and reductions in pasture availability will be experienced in the worst affected areas as the dry season progresses. The poor grazing and water conditions are negatively affecting

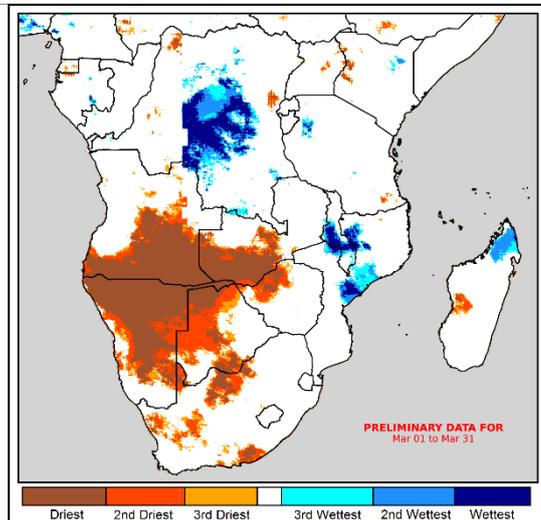


Figure 1. Areas where total rainfall for 1 Oct 2018 to 31 Mar 2019 was among driest or wettest since 1981
Source: UCSB CHC, CHIRPS

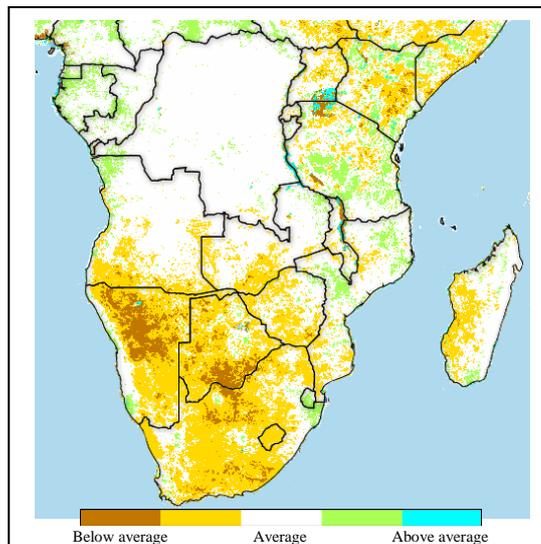


Figure 2. Percent of average greenness (NDVI) for Oct 2018 to Mar 2019
Source: climateengine.org, MODIS NDVI

livestock. Over 30,000 drought-related cattle deaths were recorded in Namibia between October 2018 and April 2019.

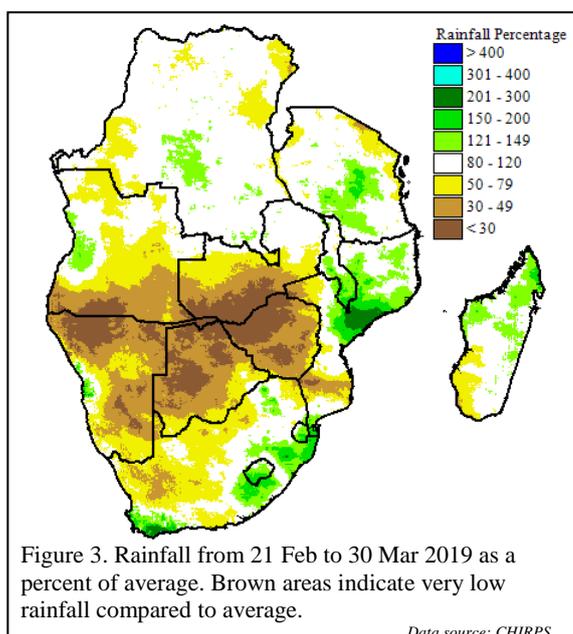
A few north-eastern parts of the region received good rainfall for much of the season, including central and northern Malawi, northern Mozambique, parts of Tanzania, and north-eastern Zambia. Good harvests are expected in some of these areas.

Effects of the erratic onset of rains and mid-season dry spell

The 4th issue of the SADC Agromet Update, released in February 2019, detailed the impacts of the delayed and erratic onset of rains, as well as the mid-season dry spell that affected central parts of the region from mid-January to early February. Areas affected by delayed and erratic onset included southern Angola, Botswana, Lesotho, southern Mozambique, northern Namibia, central South Africa, and much of Zimbabwe, resulting in significant reductions in cropped area, as well as poor germination and crop establishment. The mid-season dry spell affected south-western Angola, Botswana, parts of Lesotho, southern Mozambique, southern Zambia and southern and central Zimbabwe, and resulted in permanent wilting of crops in some of these areas.

Early cessation of rains

Following brief rains from early-to-mid-February in most parts of the region, a prolonged dry spell ensued in mid-February, across central and western parts of the region, effectively ending the cropping season prematurely in those areas. From mid-February to early April, little to no rainfall was received in southern Angola, northern Botswana, northern Namibia, southern and western Zambia, and north-western Zimbabwe. In many of these areas, reports of widespread crop failure were received. Reduced water availability in dams and boreholes was also reported, in some cases with sufficient severity to limit or prevent irrigation. Although rains re-intensified in southern Botswana, north-western South Africa and parts of southern Zambia from early April, this was in many cases too late to improve crop conditions. However, the late rains in these areas will marginally improve water supply and forage conditions. Some of the areas affected by this early cessation, such as southern Zambia, are typically high maize producing areas. This will negatively impact on national food availability in affected countries. Parts of southern Angola and northern Namibia have also experienced repeat episodes of drought in previous seasons, and the latest events further compound food insecurity in these areas.



Agricultural impacts of Tropical Cyclone Idai

Tropical Cyclone Idai brought heavy rainfall and strong winds to Malawi, Mozambique and Zimbabwe between 5 and 19 March 2019. The cyclone caused severe flooding, resulting in hundreds of fatalities, destruction of infrastructure, disruption of livelihoods, and destruction of planted crops. Close to 780,000 ha of croplands in the 3 countries were estimated to have been destroyed by the cyclone, with the majority of this area being in Mozambique. Dams and wells were also damaged, and livestock were washed away. On 11 April 2019, SADC launched a US\$ 323 million appeal to support the disaster response and recovery efforts related to Tropical Cyclone Idai impacts. The appeal document can be viewed at <http://www.sadc.int>.

Good rainfall in the north-eastern parts of the region

Some north-eastern parts of the region have generally received good rains conducive to crop development. These areas include parts of central and northern Malawi, northern Mozambique, parts of Tanzania, and eastern Zambia. Eastern and central parts of South Africa have also received good rainfall over some of the main maize producing areas. The favourable production prospects in these areas may partially mitigate impacts of poor crop production in some areas.

Crop assessments

Detailed crop assessments have either been recently completed, or are currently underway, in several different SADC Member States. These assessments are providing an increasingly accurate picture of the crop production expectations in each area, including those areas affected by drought and cyclones, and areas where high production is expected. Some countries have already released provisional results of their crop production estimates. Namibia's estimated total cereal production for this season is less than half of last year's production, and approximately 58% of the 20-year average production. South Africa's expected commercial maize harvest of 10.6 million MT is approximately 86% of the 5-year average.

GEOGLAM Crop Condition Assessment for Southern Africa

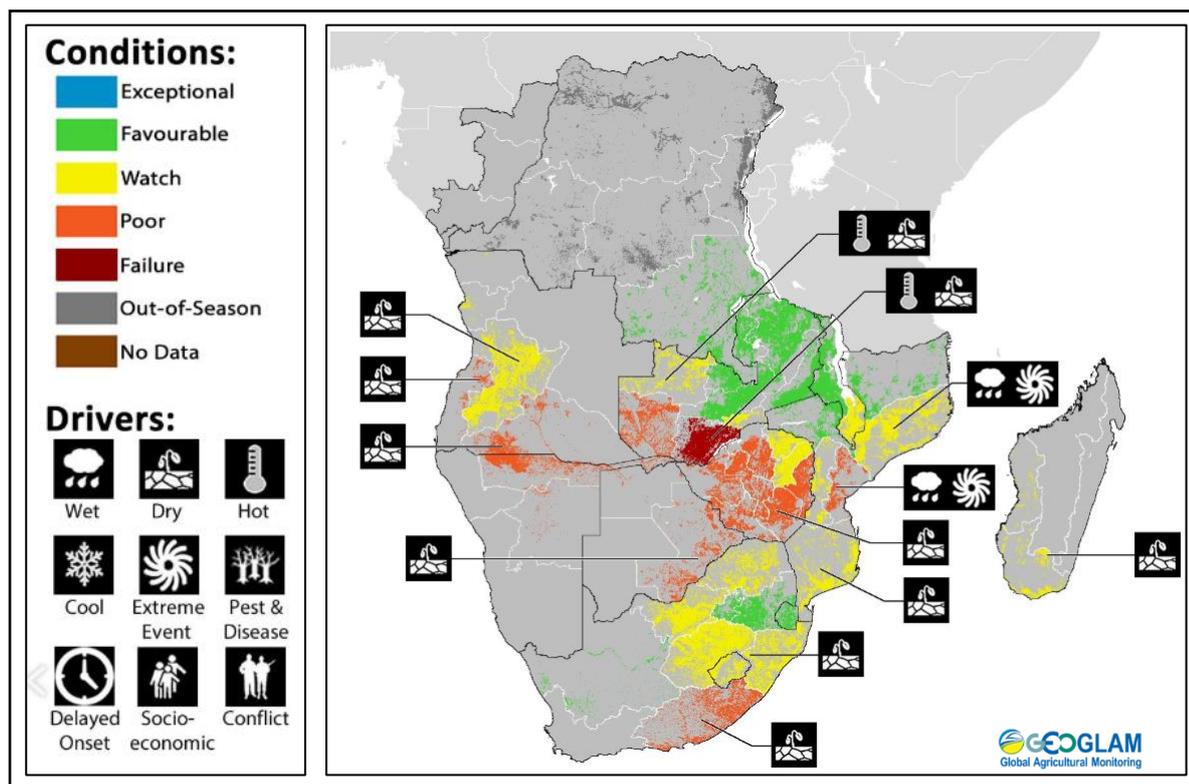


Figure 4. GEOGLAM Maize Crop Condition Map for Southern Africa

Source: GEOGLAM, cropmonitor.org

The Group on Earth Observations Global Agriculture Monitoring (GEOGLAM) recently issued its April Crop Monitor for Early Warning, including a global crop condition assessment (Figure 4). For Southern Africa, the crop condition assessment highlighted that most areas were under watch or poor condition, primarily due to the effects of the dry conditions that occurred during the growing season. The GEOGLAM Crop Condition assessment is produced primarily from analysis of several remote sensing indicators and available field information, with participation in the assessment process open to international and national agencies. The assessment is undertaken monthly. The full report is available at <http://cropmonitor.org>