Food Security Early Warning System

Agromet Update

2020/2021 Agricultural Season

Issue 03 Month: January **Season: 2020-2021** **29-01-2021**

Highlights

- **Rainfall performance over many parts of the region has been conducive to crop development, and good crop conditions have been noted in many areas.**
- **Areas in the southern half of the region received heavy rainfall in December and early January, resulting in flooding and waterlogging.**
- **Below average rainfall continued in some western and eastern parts of the region. In southern Madagascar severe drought conditions are negatively impacting agriculture.**
- **The African Migratory Locust outbreak continued, promoted by wet conditions conducive to locust breeding. Control efforts are ongoing, although in some areas are being hampered by incessant rains.**

Rainfall patterns to date

Above-average seasonal rainfall to date was received in most of the southern half of the region and northern Tanzania, while well below average rainfall was received in some southern, western and eastern areas (Figure 1). The heavy rains in some areas resulted in flooding in some areas including parts of southern and central Namibia, southern Tanzania, southern and eastern Zambia, South Africa, western DRC, and Zimbabwe. The flooding resulted in some destruction to infrastructure and crops. Heavy rainfall in December and January also raised dam levels in Zimbabwe, several of which were reported close to or at full capacity by January 22. Full dams further raises possibility of flooding downstream.

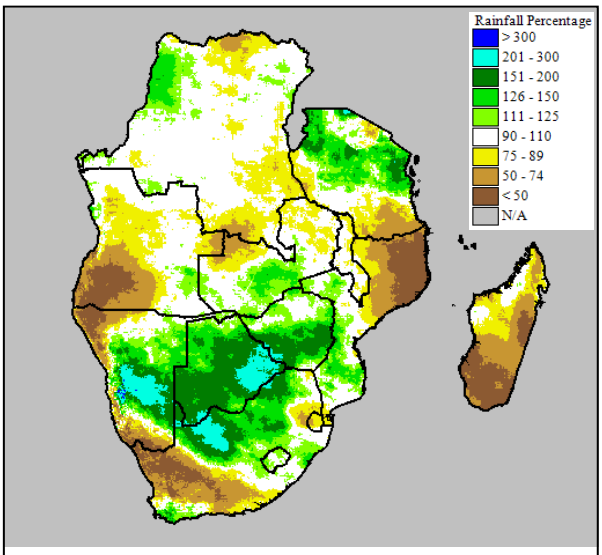

Figure 1. Rainfall for 1 Oct 2020 to 10 Jan 2021 expressed as percent of average rainfall for the same period. *Source: CHIRPS, CHIRPS Prelim – FEWS NET*

Between October 2020 and early January 2021, low rainfall was received in south-western Angola, across much of Madagascar, northern Mozambique, north-western Namibia, south-western South Africa, and southern Tanzania (Figure 1). Parts of southern DRC, Eswatini, eastern South Africa, and north-western Zambia also recorded below average rainfall totals over this period. Some of the affected areas in southern Angola, northern Namibia and southern Madagascar received low rainfall in the last few season, further exacerbating the impacts of the low rainfall received to date this season. Southern Madagascar in particular is in the grip of a severe drought, having experienced successive droughts in the last few seasons. Some of the bimodal areas in northern Tanzania also received average to below average rainfall during the October-to-December 2020 season.

Tropical Storms and Cyclones

In late December 2020, Tropical Storm Chalane made landfall and tracked through Madagascar, Mozambique, Zimbabwe and Botswana. The storm destroyed houses and infrastructure, primarily in central Mozambique (Sofala Province), and less so in eastern Zimbabwe (Manicaland Province). On January 19, Tropical Storm Eloise made landfall in northern Madagascar, tracked westwards through northern Madagascar and strengthened into a Tropical Cyclone (TC) in the Mozambique Channel, before making landfall in central Mozambique on January 23. TC Eloise tracked southwest through Mozambique, southern Zimbabwe, and northern South Africa, weakening considerably as it moved inland. According to initial reports, TC Eloise affected over 1000 people in Eswatini, over 1000 people in Madagascar, over 267,000 people in Mozambique,

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and over 1000 people in Zimbabwe. Over 177,000 ha of crops were flooded in Mozambique, according to the national disaster authority. In Zimbabwe, the associated rains also caused flooding and mudslides, and destroyed infrastructure in eastern and southern parts of the country.

Onset of rains and planting progress

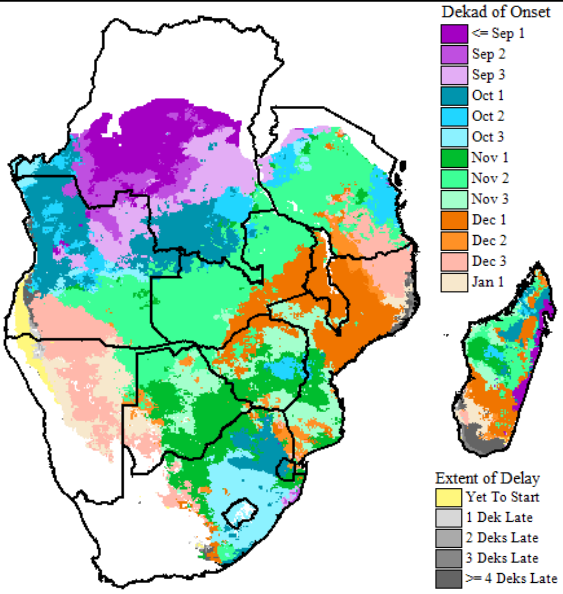

Figure 2. Onset of rains and anomaly as of 10 January 2021 *Source: FEWS NET*

By early January 2021, most parts of the region had experienced an onset of rains (Figure 2), and farmers in most areas have planted. Rainfall onset was late in parts of southern Malawi, north-eastern Tanzania, eastern Zambia, and northern and eastern Zimbabwe, thus delaying planting by between 1 and 3 weeks. Incessant rainfall in parts of Zambia and Zimbabwe also delayed planting. Area planted to maize in Zimbabwe was above average by the end of December, although some planting delays were caused by reduced draught power and high costs of inputs. Approximately half the planned area had been planted in northern and central Mozambique. In Lesotho, a relatively large area has been planted this season given the good consistent rains over most locations. Parts of southern Madagascar continue to receive poor rainfall, in particular the southern-most areas, which have not registered sufficient rains to support planting and establishment of crops (Figure 2). South-western Angola and north-western Namibia also received well below average rainfall in December, although the rainfall intensified significantly in northern Namibia in early January, promoting likelihood of planting and successful establishment of crops. In Eswatini, an early onset in October 2020 was followed by hot dry conditions that caused early crop wilting for farmers who had planted, and a need for replanting in some areas.

Crop condition

Based on the water requirements satisfaction index (WRSI), most parts of the region have received sufficient rainfall to support crop growth. According to field information received, crops were reported to be ranging between vegetative and flowering stage, and in good condition, in Eswatini, Lesotho, Malawi, main maize growing areas of South Africa, Zambia and Zimbabwe. In parts of Eswatini, Lesotho and Zimbabwe, incessant rains reportedly affected farming operations such as weeding. The excessive rains in some areas also caused waterlogging and leaching, with subsequent negative impacts on the crop condition. Challenges in obtaining top-dressing fertilizers in Zimbabwe are likely to exacerbate the impacts of leaching. Hail was reported to have damaged crops in parts of the Gauteng Province, South Africa, and Muchinga Province in eastern Zambia. In Tanzania, the crops are reported to be in moderate condition, with some areas experiencing mild moisture stress, while other areas, including parts of Mtwara Region in the south, experienced flooding and waterlogging due to excessive rains. In south-western Angola, north-western Namibia, and southern Madagascar, low rainfall is expected to negatively impact crop production.

Livestock and pastures

Widespread rainfall has benefitted livestock, as forage and water availability for livestock has improved significantly in many areas. South-eastern and north-eastern parts of the region currently have well-above average vegetation conditions (Figure 3) following the favourable rainfall received to date. In contrast, poor vegetation conditions continue in south-western Angola, southern Madagascar, much of Namibia, and western half of South Africa due to low rainfall. Following December rains, vegetation conditions also improved in areas of central Madagascar, southern and central Malawi, southern and central Mozambique, northern South Africa, eastern Zambia, and southern and northern Zimbabwe. The poor rainfall to date this season in parts of Namibia, Angola and southern Madagascar, is exacerbating the impacts on forage and livestock, which have suffered from consecutive droughts in the last few seasons.

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Forage conditions in Eswatini, Lesotho, Tanzania and Zimbabwe were generally reported to be in good condition by mid-January, due to the favourable rainfall received there, and livestock were in good condition. In Zimbabwe, cattle were generally being affected by tick-borne diseases exacerbated by the high rainfall being received country-wide. The wet conditions increase the risk of various livestock-related problems such as tick-borne diseases and foot rot, and farmers need to take appropriate measures such as dipping of livestock. Reports from South Africa indicate that rangelands and livestock in different parts of the country are varying widely from good to poor conditions. In the Northern Cape Province, the number of livestock were reported to be "severely depleted" amidst poor grazing conditions.

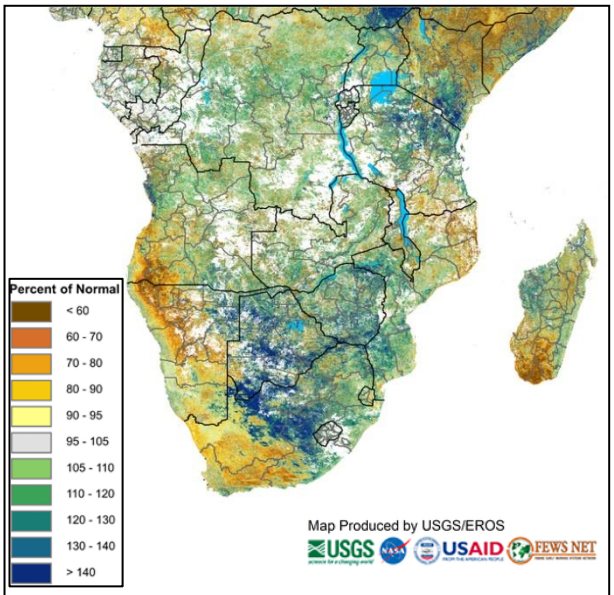

Figure 3. Vegetation Index (NDVI) compared to average conditions for 1-10 January 2021. *Source: USGS/FEWSNET*

Crop pests and diseases

Locust outbreaks

The African Migratory Locust (AML) outbreak has continued to affect the region, with recent sightings reported in Botswana, Namibia, and Zambia. High rainfall and abundant vegetation have provided optimal conditions for the breeding and multiplication of the AML. Other species, including the Red Locust, and the Brown Locust have also been observed. An outbreak of the Brown Locust was reported in southern Free State Province, a major maize producing province of South Africa. At least 50,000 ha of cropland were damaged by AML in Namibia, and new swarms and hoppers have been observed in northern Namibia and in western Botswana. No significant damage to croplands was reported in Zambia, with most sightings being made in grasslands. Control efforts are ongoing in all the affected countries, although reportedly been hampered by heavy and persistent rainfall conditions in some areas. The locust outbreak threatens the 2020/2021 summer cropping harvest as well as irrigated crops and grazing areas, if not effectively controlled. The SADC Secretariat has established a platform to facilitate coordination in control efforts and sharing of information for timely interventions by affected Member States.

Fall Armyworm

FAW presence was reported in most Member States in 2020, and re-confirmed in parts of southern Malawi, eastern South Africa and central Zimbabwe in January 2021. FAW is considered an endemic pest, but can be controlled and managed. FAW has the potential for significantly reducing harvests if not appropriately managed. Although high rainfall this season is expected to reduce the overall impact of the FAW on crop production as observed in past seasons and based on recent research, continuous surveillance and appropriate control measures in the SADC region will help to keep damage from FAW below economic thresholds.

Implications for seasonal outcomes

Rainfall has been consistent over much of this season in many parts of the region, and favourable crop conditions have been noted in several countries. Based on this, the crop production outlook is generally favourable in several countries, if moderate rains continue to the normal end of the season, and no extended dry spells occur before crops reach maturity in the main crop producing areas. Parts of the region usually experience dry spells of varying duration in January and/or February, however wet conditions appear likely to continue in most areas, at least through to early February.

Localized losses of crop production are expected due to incidents of leaching, waterlogging, and flooding of crops caused by excessive rains noted in several parts of the region. This is expected to negatively impact households and communities in the districts affected. The full impacts of Tropical Cyclone Eloise are yet to be known, and is likely to increase the overall area negatively impacted by flooding and strong winds. At national and regional level however, the high rainfall is expected to lead to improved crop production overall in several Member States.

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