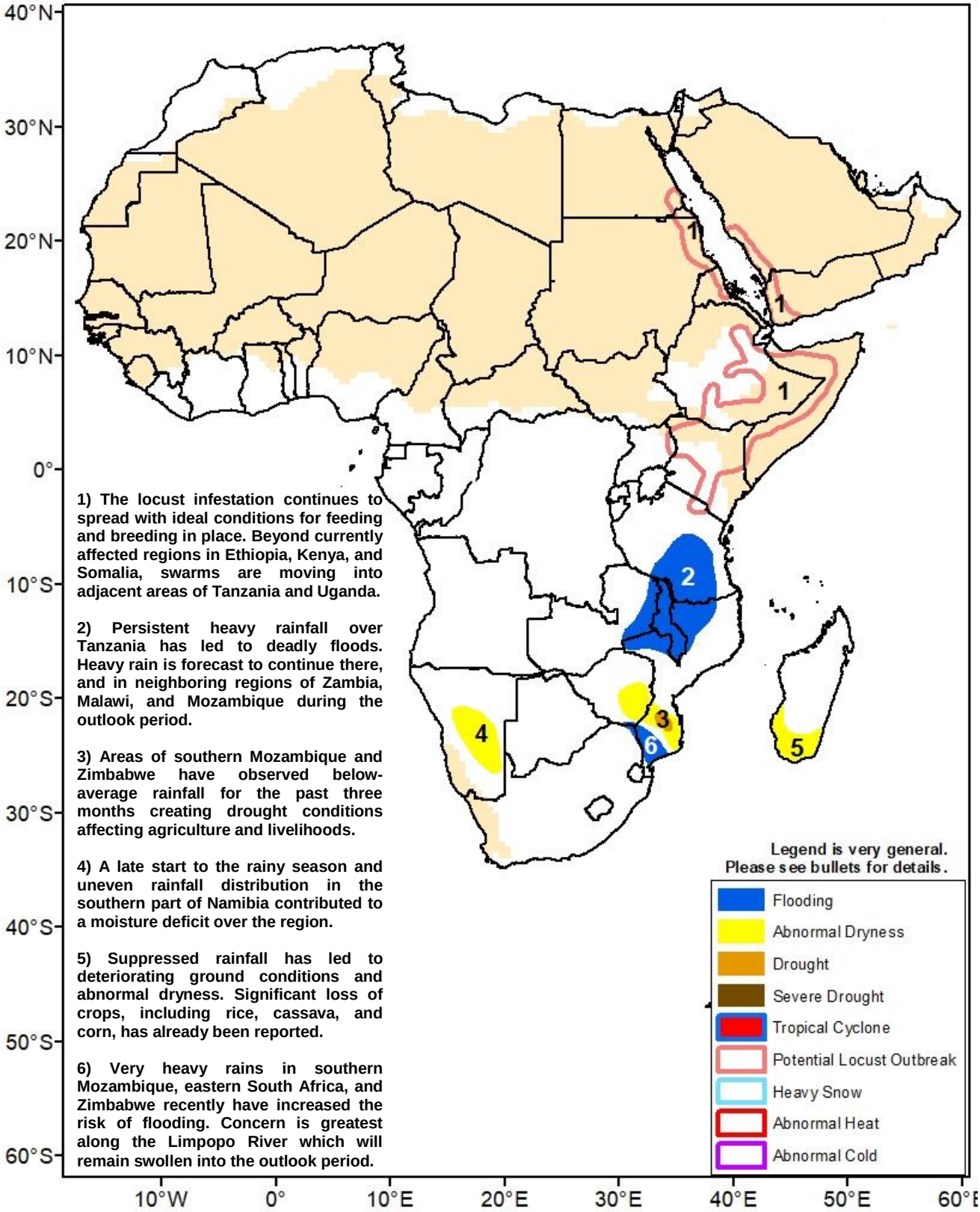
Climate Prediction Center's Africa Hazards Outlook
February 13 – February 19, 2020

- **East Africa cropping activities are seriously threatened by the worst locust outbreak in decades.**
- **The flood risk remains high after weeks of persistent heavy rains over East-central Africa.**



1) The locust infestation continues to spread with ideal conditions for feeding and breeding in place. Beyond currently affected regions in Ethiopia, Kenya, and Somalia, swarms are moving into adjacent areas of Tanzania and Uganda.

2) Persistent heavy rainfall over Tanzania has led to deadly floods. Heavy rain is forecast to continue there, and in neighboring regions of Zambia, Malawi, and Mozambique during the outlook period.

3) Areas of southern Mozambique and Zimbabwe have observed below-average rainfall for the past three months creating drought conditions affecting agriculture and livelihoods.

4) A late start to the rainy season and uneven rainfall distribution in the southern part of Namibia contributed to a moisture deficit over the region.

5) Suppressed rainfall has led to deteriorating ground conditions and abnormal dryness. Significant loss of crops, including rice, cassava, and corn, has already been reported.

6) Very heavy rains in southern Mozambique, eastern South Africa, and Zimbabwe recently have increased the risk of flooding. Concern is greatest along the Limpopo River which will remain swollen into the outlook period.

Rains diminished in intensity and scope this week, but still remained above average for some areas.

This week, rainfall was less intense across East Africa. Even so, it was enough to result in more flooding in portions of Uganda and Tanzania. Many fatalities due to flooding were reported in regions including Mwanza, Manyara, and Morogoro. More than 25mm of rainfall was observed in eastern Uganda and central Tanzania according to satellite estimates (Figure 1). On the other hand, rains were greatly diminished in Kenya and northeastern Tanzania. Outside of the Lake Victoria region in Kenya, rains were light and scattered in nature. Seasonable rainfall was received once again in eastern DRC. Light rains were also observed in western Ethiopia.

The past few months brought copious rainfall all across the East Africa region. Flooding has been widespread over many weeks as a result. Over the last 30 days, rainfall surpluses of 100mm or more are extensive across Kenya, Uganda, and Tanzania. Analysis of 90-day rainfall percentile reveals that most of Kenya, Tanzania, and Uganda have experienced one of their top 10%, or even 3%, wettest periods in our record. Outside of flooding concerns, the rainy pattern over recent months has led to excellent vegetation health throughout East Africa as evidenced by VHI. Additionally, urgent mitigation measures are ongoing to stop the spread of locusts throughout the region. Wet conditions and ample vegetation are helping drive locust populations to increasingly dangerous levels.

During the outlook period, the heaviest rains (> 50mm) will likely be displaced farther south in Tanzania according to the GEFS model. While less rain is expected over Uganda, light or moderate rain is still forecasted in the country and in Kenya. There is potential for light rains to spread further north across Ethiopia this week.

Satellite Estimated Total Rainfall (mm)
Valid: February 5 – February 11, 2020

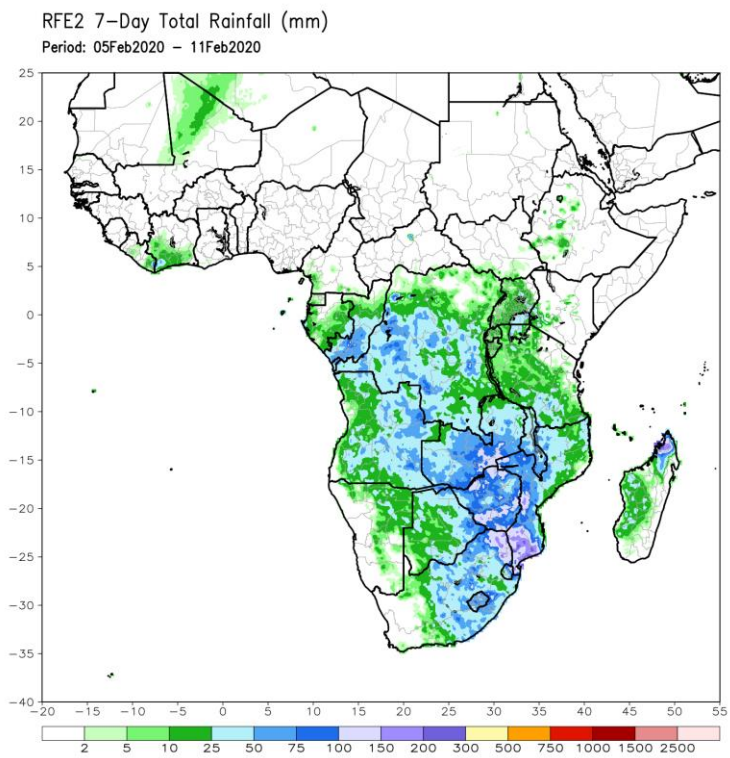


Figure 1: NOAA/CPC

Rains were well-distributed across Southern Africa this past week.

Almost the entire region received beneficial rain last week. The heaviest rainfall was observed in southern Mozambique, Zimbabwe, and northeast South Africa where over 150mm fell according to satellite estimates (Figure 1). Widespread heavy rains (> 50mm) were also observed in central South Africa, Angola, Zambia, and Malawi. There were reports of flooding in the Johannesburg region of South Africa and Binga Zimbabwe. For the second consecutive week, Madagascar received only light and well-below normal rainfall. Rains were also suppressed in northern Mozambique. Even though Namibia received rains, they were largely insufficient.

Several areas have seen multiple weeks of poor rainfall accumulate into significant rainfall deficits. Analysis of 30-day anomalies shows deficits of more than 100mm across Madagascar and local parts of Namibia (Figure 2). Other areas exhibiting rainfall deficits include southeast and northwest Angola, Botswana, northern Mozambique, local areas of Zimbabwe and eastern South Africa. Recent rainfall has diminished moisture deficits somewhat in southern Mozambique, but conditions on the ground still appear relatively poor. Cropping activities are negatively affected in both Zimbabwe and Madagascar with a generally inadequate rainy season to date.

In the next 7 days, below-normal rainfall is expected for much of southern Africa. This may exacerbate already dry ground conditions in Namibia and Botswana. Madagascar is forecast to receive enhanced rains (100-150mm). Heavy rains are also expected in northern Mozambique and Malawi.

Satellite Estimated Total Rainfall Anomaly (mm)
Valid: January 13 – February 11, 2020

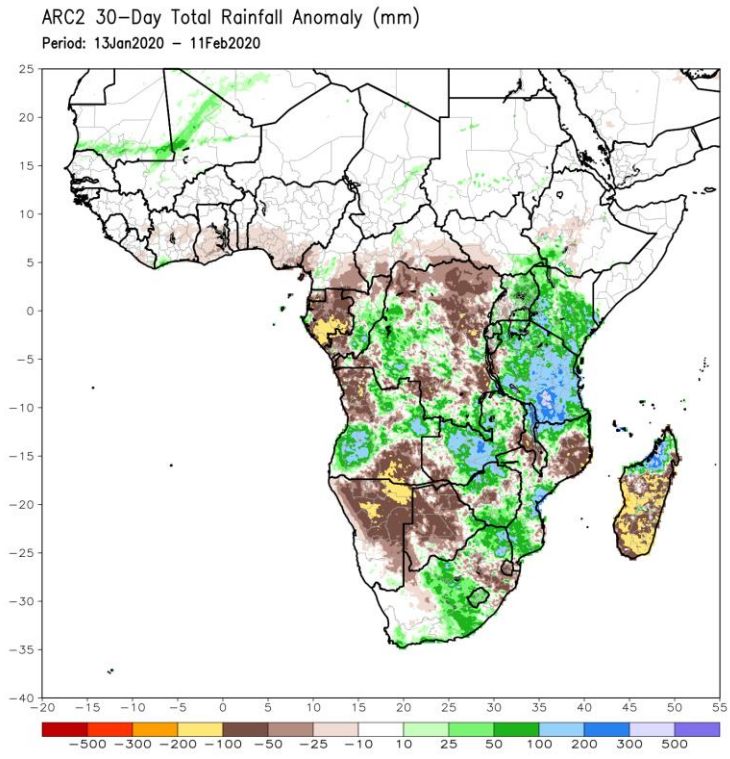


Figure 2: NOAA/CPC

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.

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