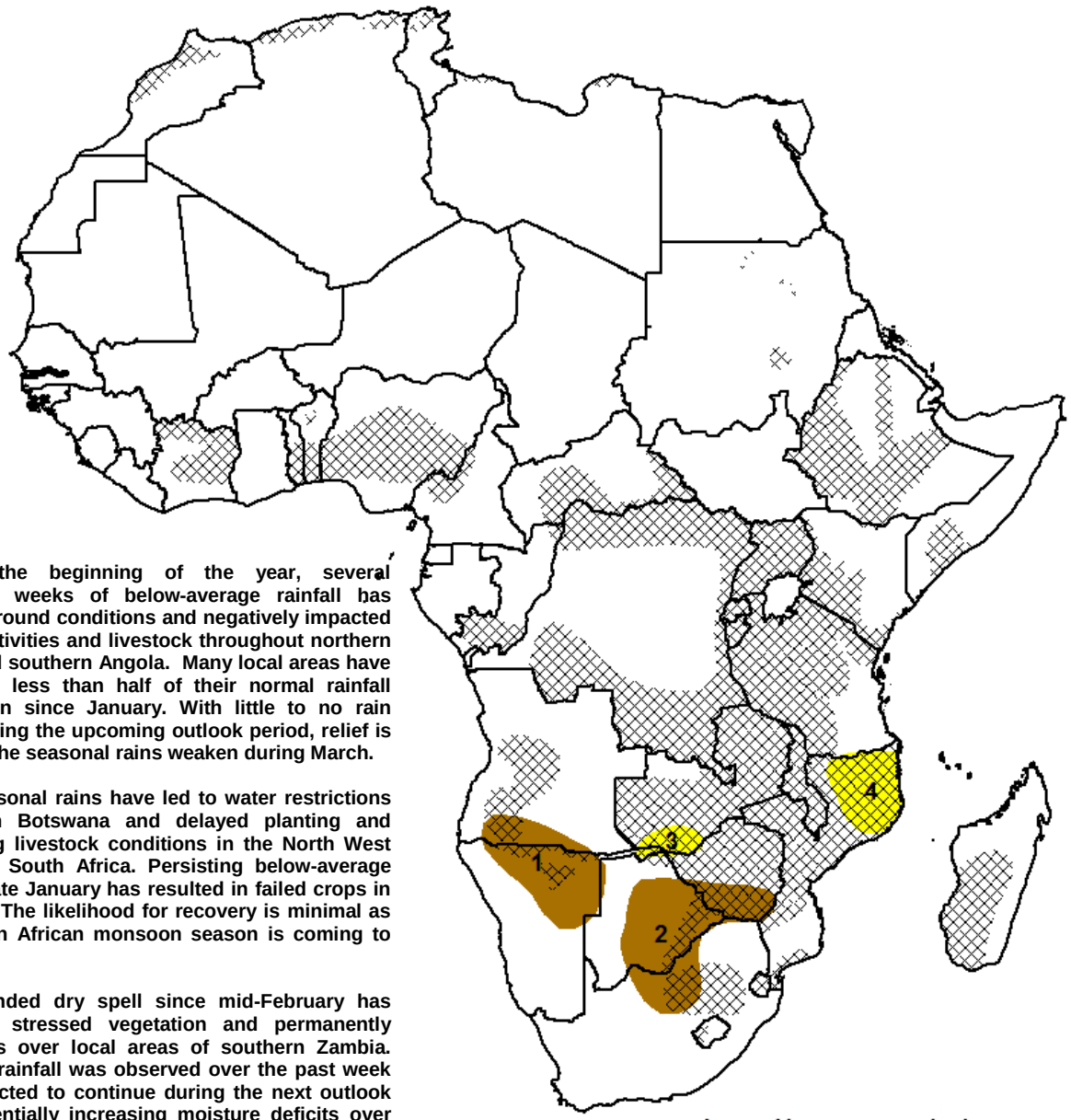
Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
March 21 – March 27, 2013

- **Dryness worsens across southern Africa as the rain-bearing system continues its northward withdrawal.**
- **Favorable rain is expected to continue over eastern Africa.**



1) Since the beginning of the year, several consecutive weeks of below-average rainfall has worsened ground conditions and negatively impacted cropping activities and livestock throughout northern Namibia and southern Angola. Many local areas have experienced less than half of their normal rainfall accumulation since January. With little to no rain forecast during the upcoming outlook period, relief is unlikely as the seasonal rains weaken during March.

2) Poor seasonal rains have led to water restrictions in southern Botswana and delayed planting and deteriorating livestock conditions in the North West province of South Africa. Persisting below-average rain since late January has resulted in failed crops in local areas. The likelihood for recovery is minimal as the southern African monsoon season is coming to an end.

3) An extended dry spell since mid-February has resulted in stressed vegetation and permanently wilted crops over local areas of southern Zambia. Little to no rainfall was observed over the past week and is expected to continue during the next outlook period, potentially increasing moisture deficits over the region.

4) After rainfall surpluses during January, rainfall has significantly reduced since mid-February. This has led to developing dryness, with rainfall deficits exceeding 150 mm over the Cabo Delgado and Nampula provinces of northern Mozambique over the past thirty days. Dryness could persist and potentially negatively impacting crops as light rain is forecast over the next outlook period.

Dryness worsens over southern Africa.

Since the beginning of the southern Africa monsoon, rainfall has been characterized by an inconsistent temporal distribution across many areas of the region. Some areas started with a delayed onset of the season and then received unseasonably higher amounts of rainfall for only a relatively short period of time or vice versa. In Zimbabwe, an analysis of the accumulated rainfall from the Global Telecommunication Systems (GTS) over Fort Victoria over the past ninety days shows a wet spell during January followed by two extended dry spells afterward (**Figure 1**). This has contributed to the maintaining of negative rainfall anomalies, with deficits exceeding 90 mm and has resulted in stressed and failed crops over local areas. During the past seven days, the rain-bearing weather system continued its equatorward withdrawal, resulting in moderate and heavy rains that were concentrated across the northern parts of southern Africa, including the northern half of Angola, northern Zambia, southern Tanzania, and portions of northern Mozambique. Light to locally moderate rain was also observed over eastern South Africa. In contrast, little to no rain spread across much of Namibia, Botswana, Zimbabwe, and southern Mozambique.

Due to poor rains over the past several weeks, crop conditions have started to deteriorate over a wide portion of southern Africa. Water Requirement Satisfaction Index (WRSI) during early March shows poor conditions throughout Namibia, Botswana, southern Zimbabwe, and portions of South Africa (**Figure 2**). Degraded conditions were also observed across northeastern Tanzania. With the southern Africa monsoon season coming to an end, the chance for recovery is unlikely for many drought-stricken areas.

During the next outlook period, an anomalous low-level anticyclonic circulation is expected to dominate the flow across southern Africa. This is expected to result in rainfall suppression throughout southeastern Angola, Namibia, Botswana, southern Zambia, Zimbabwe, and southern Mozambique. Light rain is, however, forecast over Malawi, the northern two-thirds of Mozambique, and South Africa.

Favorable rain expected in eastern Africa.

During the past week, moderate to locally heavy rain fell across the SNNP region and localized areas of eastern Ethiopia (**Figure 3**). Light to locally moderate rain was also observed over eastern Kenya and southern Somalia. In Ethiopia, despite the observed enhanced distribution of rain during the past few weeks, rainfall deficits have persisted over the eastern Amhara region and portions of the south over the past thirty days. As a result, the delayed onset of the season has already negatively impacted the planting window of the *Belg* crops over local areas. During the next week, the interactions between eastern Africa's atmospheric flow and extratropical systems are expected to bring heavy rain over the eastern half of Ethiopia and northern Somalia. This is expected to reduce accumulated rainfall deficits and provide favorable ground moisture for cropping activities in the region.

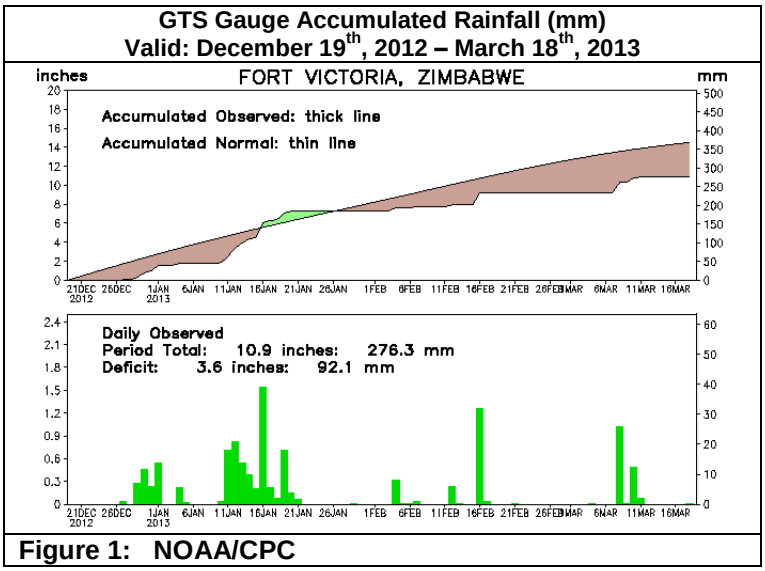


Figure 1: NOAA/CPC

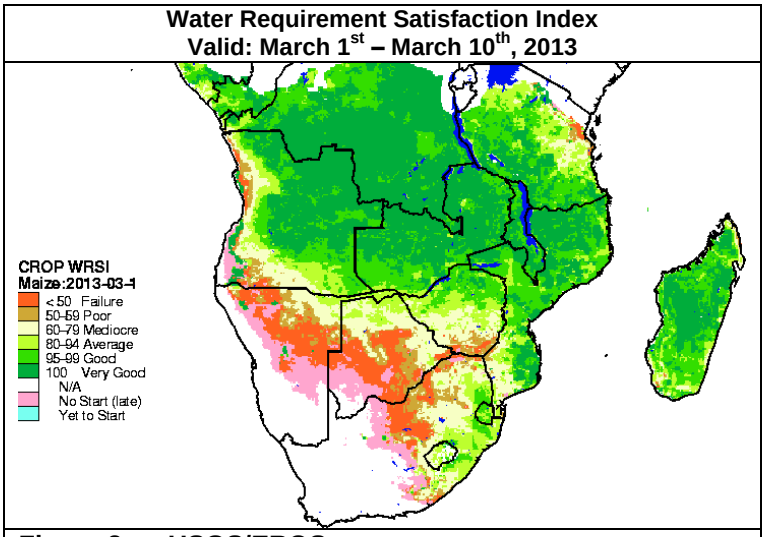


Figure 2: USGS/EROS

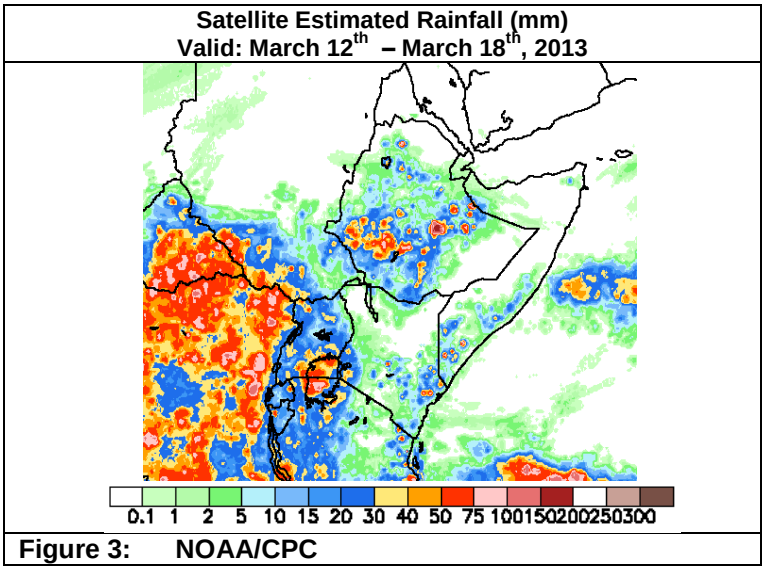


Figure 3: NOAA/CPC

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.