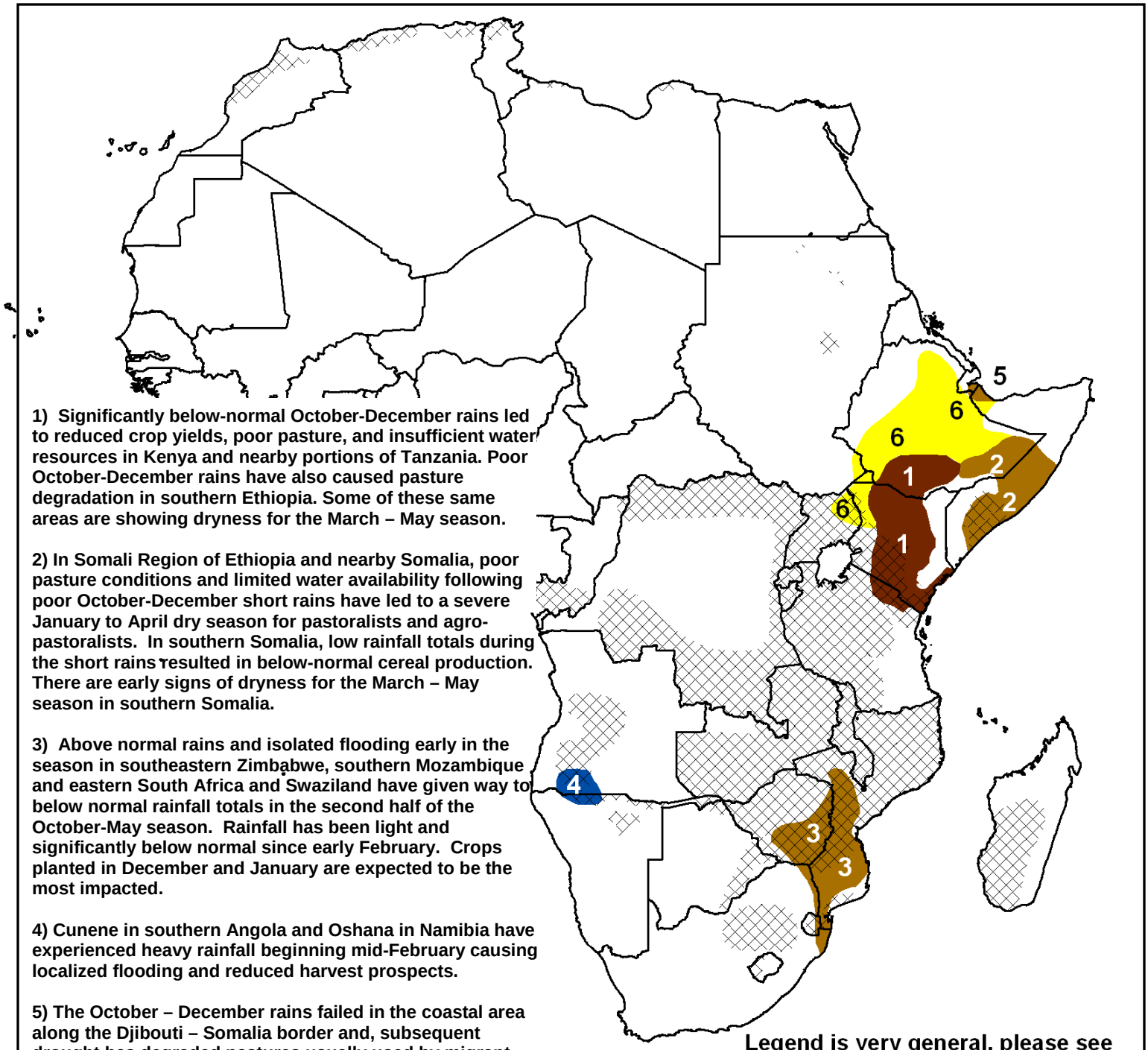
The USAID FEWS NET Weather Hazards Impacts Assessment for Africa
March 20 – 26, 2008

- **Rainfall has been slow to return to Ethiopia and Kenya for the March – May rains. This is a typical signal of a La Nina event, and we are currently experiencing one of the strongest La Ninas on record. The outlook for the season is not favorable.**

- **As the season begins to come to a close in much of southern Africa, some areas are expected to have a reduced harvest after heavy rainfall has given way to a dry spell. The most affected areas are southern Mozambique and nearby portions of Zimbabwe.**



1) Significantly below-normal October-December rains led to reduced crop yields, poor pasture, and insufficient water resources in Kenya and nearby portions of Tanzania. Poor October-December rains have also caused pasture degradation in southern Ethiopia. Some of these same areas are showing dryness for the March – May season.

2) In Somali Region of Ethiopia and nearby Somalia, poor pasture conditions and limited water availability following poor October-December short rains have led to a severe January to April dry season for pastoralists and agro-pastoralists. In southern Somalia, low rainfall totals during the short rains resulted in below-normal cereal production. There are early signs of dryness for the March – May season in southern Somalia.

3) Above normal rains and isolated flooding early in the season in southeastern Zimbabwe, southern Mozambique and eastern South Africa and Swaziland have given way to below normal rainfall totals in the second half of the October-May season. Rainfall has been light and significantly below normal since early February. Crops planted in December and January are expected to be the most impacted.

4) Cunene in southern Angola and Oshana in Namibia have experienced heavy rainfall beginning mid-February causing localized flooding and reduced harvest prospects.

5) The October – December rains failed in the coastal area along the Djibouti – Somalia border and, subsequent drought has degraded pastures usually used by migrant herdsmen.

6) Most of Ethiopia did not receive preseasonal rains in February, little to no rainfall was reported during the first half of March and prospects for improvement before April are poor. These poor rains are a common result of La Nina, and we are currently experiencing one of the strongest La Ninas on record. Below normal precipitation totals have also been observed in nearby areas of Kenya and Uganda.

La Nina hampering east Africa rains

The March to May season in Ethiopia, has not been favorable thus far. Although it is still early in the season, the outlook does not favor improvement. Weather models are indicating continued dry conditions across Ethiopia for the next two weeks and similar conditions in nearby areas of Kenya and Somalia. Some regions, such as near the Ethiopia-Kenya and Ethiopia-Somalia borders, desperately need rainfall to relieve the drought from last season's poor rains.

The longer term outlook also looks poor. The Ethiopian Met department has stated that the rains will likely be poor in the eastern two thirds of the country, and Djibouti has released a similar statement for its own outlook.

These conditions are very common during La Nina episodes, and it is expected that poor rainfall totals will be common across most of the region.
(See **Figure 1)**

Satellite Estimate Rainfall Anomaly
February 1- March 16, 2008

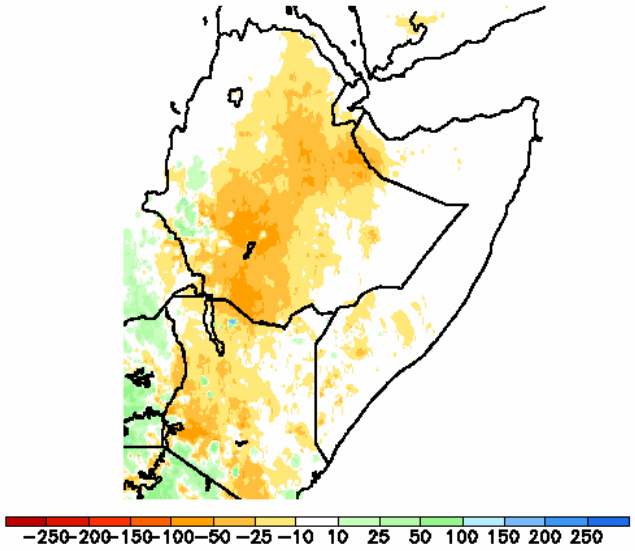


Figure 1: Early season dryness has moved into Kenya, Ethiopia and is showing early signs of moving into Somalia.

Source: NOAA

Southern African season remains a mix

Different areas of southern Africa have had a wide range of conditions during the October – May season.

In the unimodal areas of Tanzania consistent rainfall that was rarely too heavy or too light has given way to good ground conditions for both pasture and crops. Further south in northern Mozambique, conditions have been favorable, with only isolated flooding events, mainly along the regions major rivers. This has similarly produced generally good conditions for crops and pastures.

Malawi, Zambia and northern Zimbabwe had flooding problems early in the season, but in early February rainfall eased. In some areas, precipitation may have eased up too much and damaged the few crops in this area that would have been at a vulnerable stage of development. Although there was no significant flooding earlier in the season, similar conditions are likely in Botswana and the South Africa's maize triangle.

Southern Zimbabwe and southern Mozambique were impacted by the dry spell, which has continued since early February. Early-planted crops that had reached the maturation stage before dry conditions moved into the region were not as affected as later crops. This early planted crop includes a small proportion of crops in Zimbabwe, but a majority of the crops in Mozambique, where harvests are already taking place. Crops planted later, however, were more likely to be at the vulnerable reproductive stage when the dry spell arrived. For these crops the dry spell has had serious implications.
(See **Figure 2**)

Soil Water Index for Maize
March 16, 2008

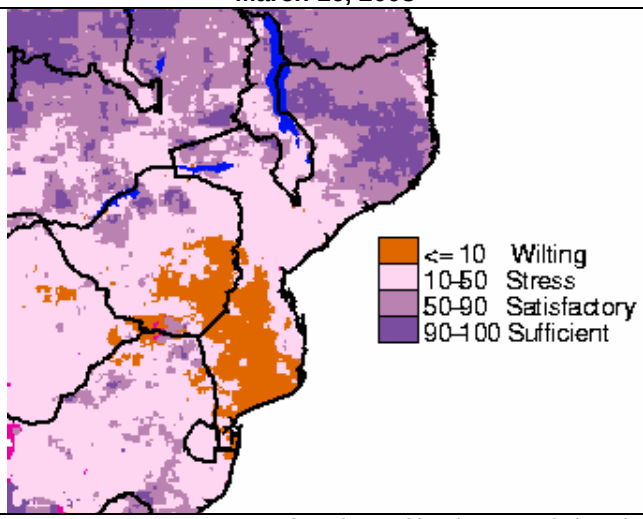


Figure 2: A wet season across most of southern Africa, has turned abruptly dry affected crop conditions.

Source: USGS

The odds favor a better than average season in West Africa

Preliminary model output shows signs of a better than normal season along the Gulf of Guinea region northward towards the Sahel. (See **Figure 3**) It is important to note that these are model forecasts depicting tilting odds and cover the April – June time period, whereas the season is May - October.

The model is keying in on a weak sea surface temperatures dipole in the Gulf of Guinea and the Atlantic Ocean off the Senegal-Mauritania coast. This is commonly a mechanism for a wetter than normal season across West Africa.

Outlook for April – June in the Gulf of Guinea Region

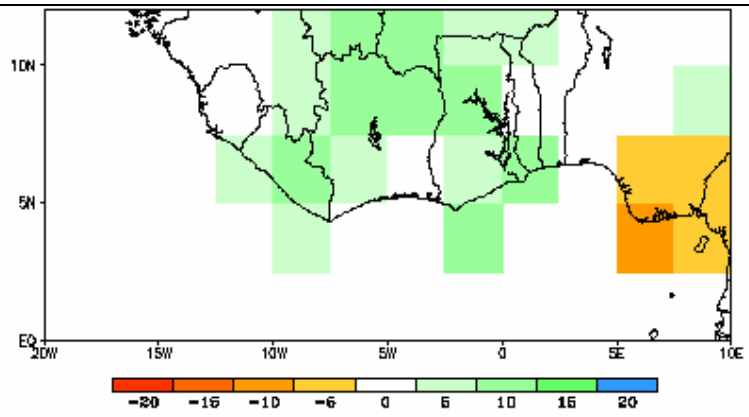


Figure 3.Outlook for the Gulf of Guinea region, similar outlooks have been mentioned for the Sahel.

Source: NOAA