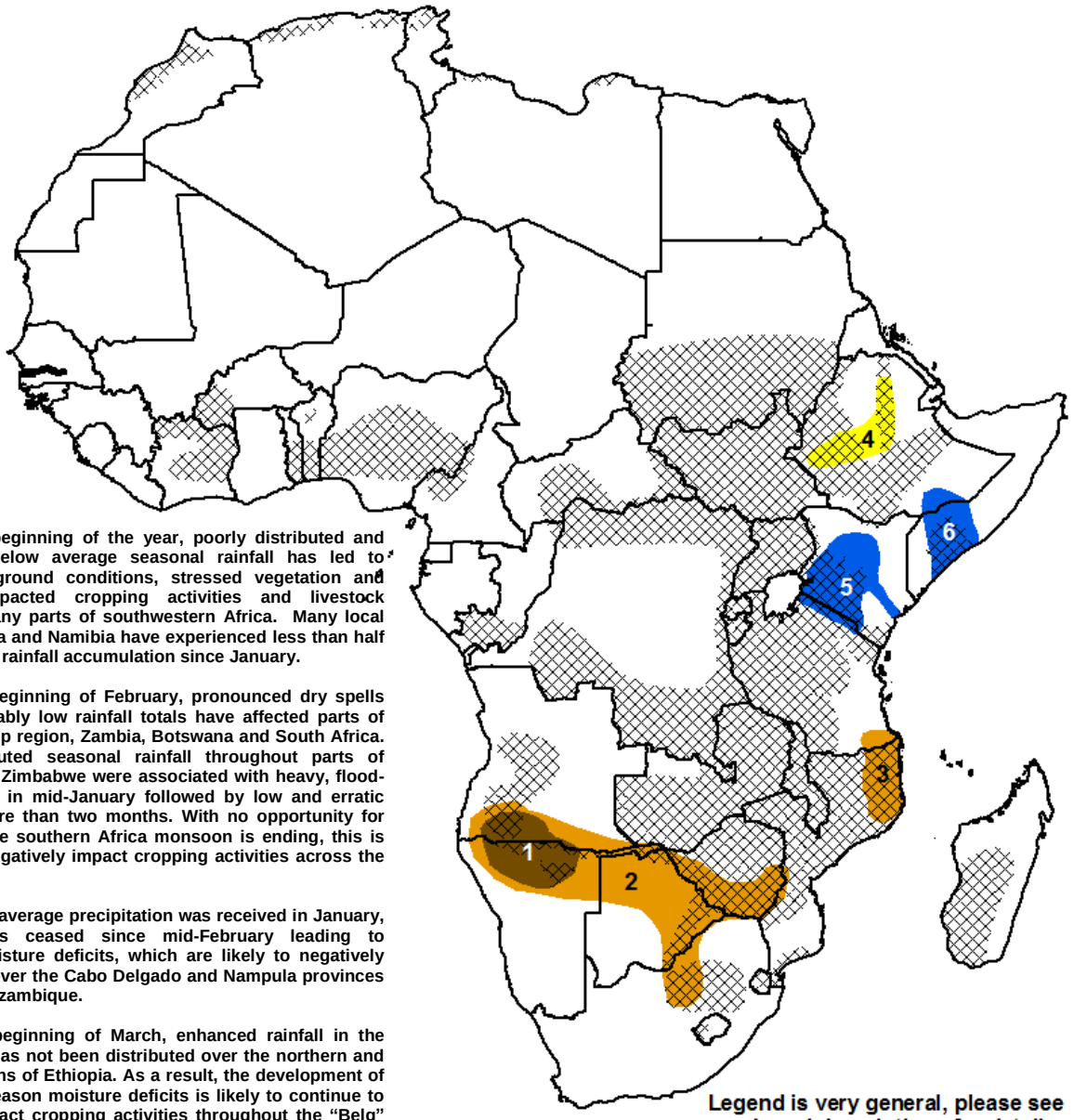
Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
April 11 – April 17, 2013

- **Several weeks of above-average seasonal precipitation over the Greater Horn has negatively impacted parts of Kenya with flooding and damage to infrastructure.**



1) Since the beginning of the year, poorly distributed and significantly below average seasonal rainfall has led to deteriorating ground conditions, stressed vegetation and negatively impacted cropping activities and livestock throughout many parts of southwestern Africa. Many local areas in Angola and Namibia have experienced less than half of their normal rainfall accumulation since January.

2) Since the beginning of February, pronounced dry spells and unseasonably low rainfall totals have affected parts of the Caprivi Strip region, Zambia, Botswana and South Africa. Poorly distributed seasonal rainfall throughout parts of Botswana and Zimbabwe were associated with heavy, flood-inducing rains in mid-January followed by low and erratic rainfall for more than two months. With no opportunity for recovery as the southern Africa monsoon is ending, this is expected to negatively impact cropping activities across the region.

3) After above-average precipitation was received in January, seasonal rains ceased since mid-February leading to significant moisture deficits, which are likely to negatively impact crops over the Cabo Delgado and Nampula provinces of northern Mozambique.

4) Since the beginning of March, enhanced rainfall in the Greater Horn has not been distributed over the northern and western portions of Ethiopia. As a result, the development of early to mid-season moisture deficits is likely to continue to negatively impact cropping activities throughout the "Belg" producing areas of the country.

5) Several weeks of heavy precipitation has led to localized flooding, inundation along the Tana River, damage to infrastructure, thousands of displaced people, and fatalities throughout many local areas of Kenya. Locally torrential rainfall is forecast for the third consecutive week across the Marsabit, Isiolo, Meru, Narok and Kajiado districts during the next seven days.

6) Significantly heavy rainfall during the last two weeks has led to flooding, damaged crops, and the displacement of thousands of people along the Shabelle River. Another week of enhanced rainfall forecast over eastern Ethiopia and southern Somalia is expected conditions during mid-April.

Above-average seasonal rains continue over the Greater Horn.

During the first week in April, an enhanced precipitation pattern was observed for the third consecutive week over East Africa. Robust precipitation accumulations (>75mm) were again observed over central and southern Somalia, with locally torrential amounts over parts of southern and central Kenya during the last seven days (**Figure 1**). In Ethiopia, heavy and well-distributed precipitation totals were also received across the southern and eastern regions of the country, with lesser amounts observed in the west and higher elevations of the country. Elsewhere, favorably high and well distributed seasonable rainfall totals were received across many parts of Uganda and Tanzania during early April.

The onset of continuous, enhanced rainfall since the second dekad of March has led to increasing seasonal precipitation surpluses (>100mm) across a broad portion of southern and eastern Ethiopia, southern Somalia and central and eastern Kenya. While increased moisture has led to improved pastoral conditions and has replenished water availability throughout many local areas in Somalia and eastern Ethiopia, significantly above-average rainfall during the last three weeks has led to overly saturated ground conditions. Many local areas have already experienced more than 3 times their normal rainfall accumulation since the beginning of April (**Figure 2**) sustaining the risk for localized flash flooding and downstream river inundation over the Jubba and Shabelle River basins in eastern Ethiopia and southern Somalia.

In Kenya, isolated, torrential rainfall during the last couple of weeks has negatively impacted several local areas across the country. The worst affected areas include the Marsabit and Isiolo provinces, where heavy rains have triggered floods leading to damages to infrastructure, and inaccessible roads. Heavy rains have also induced floods in the southern Narok and northern Kajiado provinces further south, and caused inundation along the Tana River resulting in displacement of thousands of people during the last week.

Despite this increase in rains in the Greater Horn, a delayed onset and uneven spatial distribution of rainfall over parts of Ethiopia during the past several weeks continues to sustain and increase seasonal moisture deficits in the region. By early April, many local areas have experienced moderate to locally large rainfall deficits (50-100mm) in parts of the Oromia, Amhara, Tigray, and Gambella regions of the country. This has already negatively affected cropping activities with a reduction of planting over many local *Belg*-producing areas of Ethiopia. Water requirement analyses for crops reflect a delayed start in the higher elevations of the eastern Amhara region, with locally below to near average conditions in parts of the SNNP and Oromia regions (**Figure 3**). A continuation of below-average rains during April is expected to exacerbate ground conditions, and possibly lead to reduced crop yields.

During the upcoming outlook period, model forecasts suggest little change in the distribution of rainfall across East Africa in relation to the past week. Average to above average rains are again expected across eastern Ethiopia, Somalia and Kenya, while a slight increase in rainfall is forecast across many anomalously dry areas within the *Belg*-producing areas of Ethiopia. The enhanced rainfall in the Greater Horn is expected to heighten the potential for additional flooding and exacerbate ground conditions for many overly saturated areas.

East Africa Satellite Estimated Rainfall (mm)
Valid: March 31st – April 6th, 2013

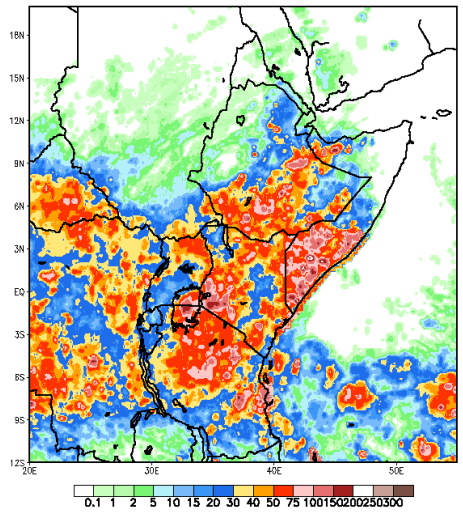


Figure 1: NOAA/CPC

Satellite Estimated Rainfall Percent of Normal Rainfall (%)
Valid: April 1st – April 8th, 2013

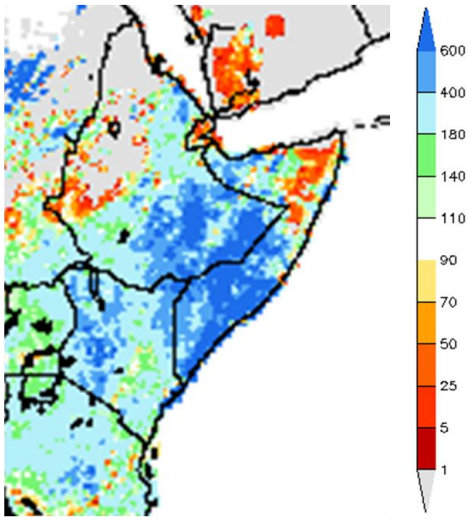


Figure 2: NOAA/CPC

Water Requirement Satisfaction Anomaly from Median
As of: 3rd Dekad of March, 2013

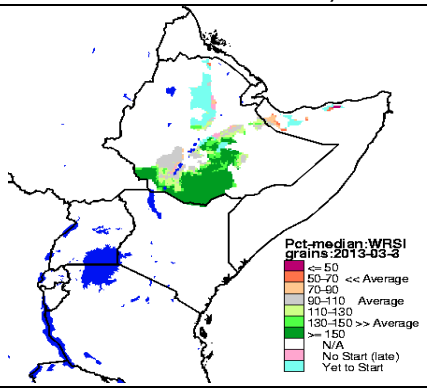


Figure 3: USGS/EROS

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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