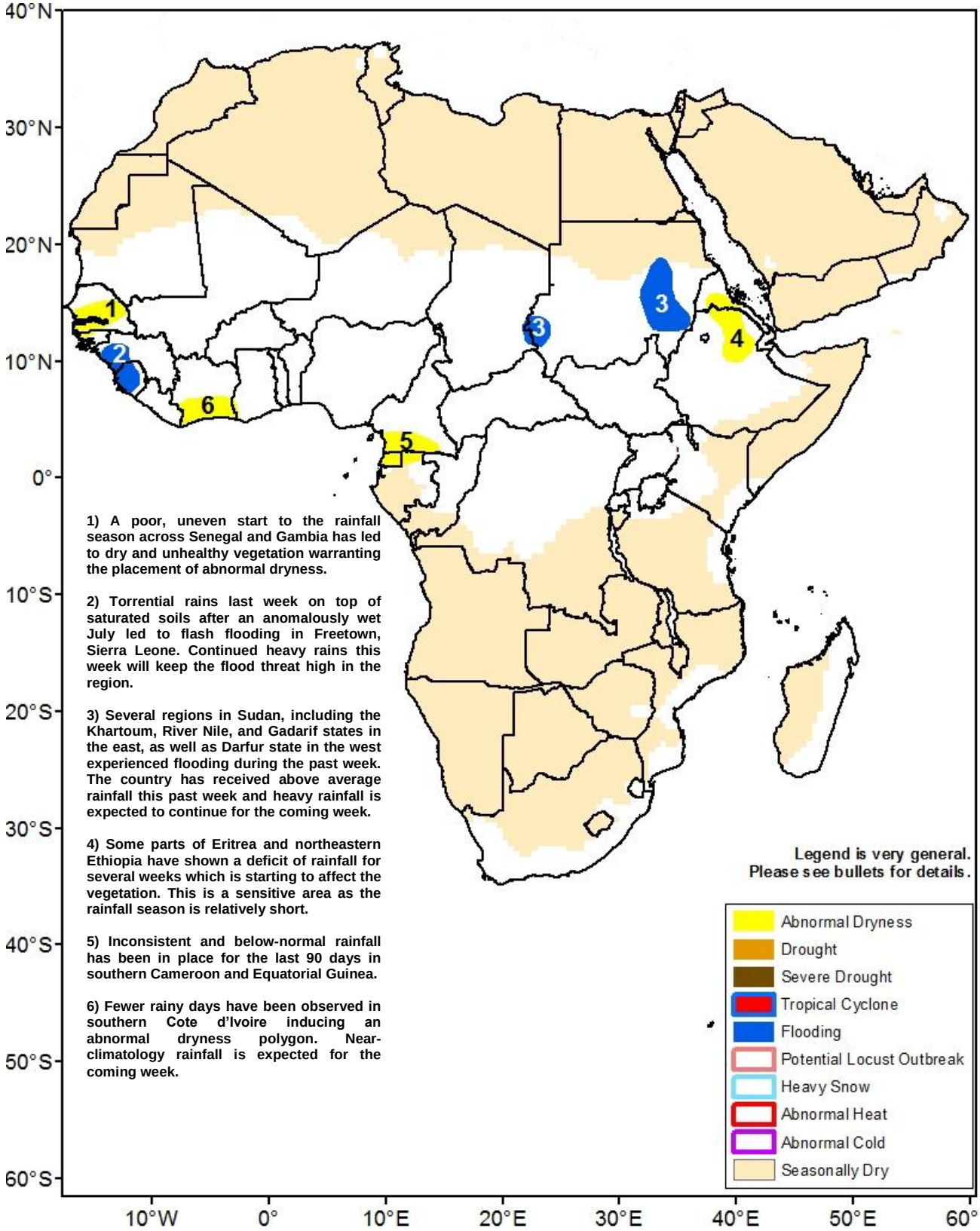
Climate Prediction Center's Africa Hazards Outlook
August 8 – August 14, 2019

- **Persistently heavy rainfall is beginning to introduce flooding in Guinea, Sierra Leone and Sudan in East Africa.**
- **A persistent pattern in West Africa continues to limit rainfall in Senegal and southern Mauritania.**



1) A poor, uneven start to the rainfall season across Senegal and Gambia has led to dry and unhealthy vegetation warranting the placement of abnormal dryness.

2) Torrential rains last week on top of saturated soils after an anomalously wet July led to flash flooding in Freetown, Sierra Leone. Continued heavy rains this week will keep the flood threat high in the region.

3) Several regions in Sudan, including the Khartoum, River Nile, and Gadarif states in the east, as well as Darfur state in the west experienced flooding during the past week. The country has received above average rainfall this past week and heavy rainfall is expected to continue for the coming week.

4) Some parts of Eritrea and northeastern Ethiopia have shown a deficit of rainfall for several weeks which is starting to affect the vegetation. This is a sensitive area as the rainfall season is relatively short.

5) Inconsistent and below-normal rainfall has been in place for the last 90 days in southern Cameroon and Equatorial Guinea.

6) Fewer rainy days have been observed in southern Cote d'Ivoire inducing an abnormal dryness polygon. Near-climatology rainfall is expected for the coming week.

Heavy rains have been persistent in Guinea and Sierra Leone leading to flooding issues.

During the first week of August, a dipole pattern of rainfall was observed over far western Africa with heavy rain over Guinea and Sierra Leone and significantly suppressed rain over Senegal. According to satellite estimates, totals of more than 100mm were received in Sierra Leone, Guinea and local parts of Mali (**Figure 1**). Well-distributed and above-normal rainfall was observed across many other portions of the region including Liberia, Burkina Faso, Niger, and parts of Cote D'Ivoire. Some rainfall suppression occurred in western Nigeria and Benin.

Since the beginning of June, Guinea and Sierra Leone have experienced abnormal wetness. Positive rainfall anomalies, ranging between 100-500 mm, have been observed in Guinea-Conakry, Sierra Leone, and southern Mali. Meanwhile, deficits are growing to 50-100+mm in Senegal and southern Mauritania (**Figure 2**). Impacts from the poor start to the rainy season are very evident in vegetation health indices over Senegal. To the south, moisture deficits in southern Cote D'Ivoire are holding steady as that area is experiencing their mid-season dry spell. Elsewhere, in central Nigeria, rains have improved over the last several weeks reducing any abnormally dry conditions. In fact, flooding has been reported in the Abuja region this week. Rainfall has been sufficient through most of the rest of West Africa during July, at least in part attributed to an average to above-average position of the Inter-tropical front.

During the outlook period, models suggest the pattern will not change much. Suppressed rain should continue across Senegal, while rains remain heavy (>100mm) over Guinea, Sierra Leone and southern Mali. Throughout the remainder of West Africa rains should be well-distributed and at least as much in quantity as normal.

Seasonal deficits are deepening in northern Ethiopia.

Rains were widespread and near to above normal in quantity over much of East Africa this past week (**Figure 1**). The notable exception was in northern Ethiopia and Eritrea which experienced suppressed rainfall resulting in negative anomalies of 10-50mm. This mirrored the general pattern that has been in place since June. Over the 30-day period dating to July 5, large deficits have grown over the Amhara, Tigre, and Afar states of Ethiopia as well as portions of Eritrea. Visible impacts to vegetation health can be observed by satellite derived indices. Since this rainfall season is relatively short for these regions, we are especially sensitive to the impacts on agro-pastoral activities. Across the border in Sudan, above average rains of more than 50mm were observed last week. These totals add on to existing surpluses to create 30-day surpluses of 100mm or more. The abnormally rainy pattern has led to many reports of flooding across the country.

Ample rain is expected during the outlook period across Sudan and South Sudan. More than 50mm is likely in some places. Some additional flash flooding and higher river levels along the Nile and its tributaries are possible. Rainfall typical of August is expected in northern Ethiopia. Meanwhile, after a lull, total rainfall is expected to increase once again in northeastern DRC.

7-Day Satellite-Estimated Rainfall Total (mm)
Valid: July 31 – August 6, 2019

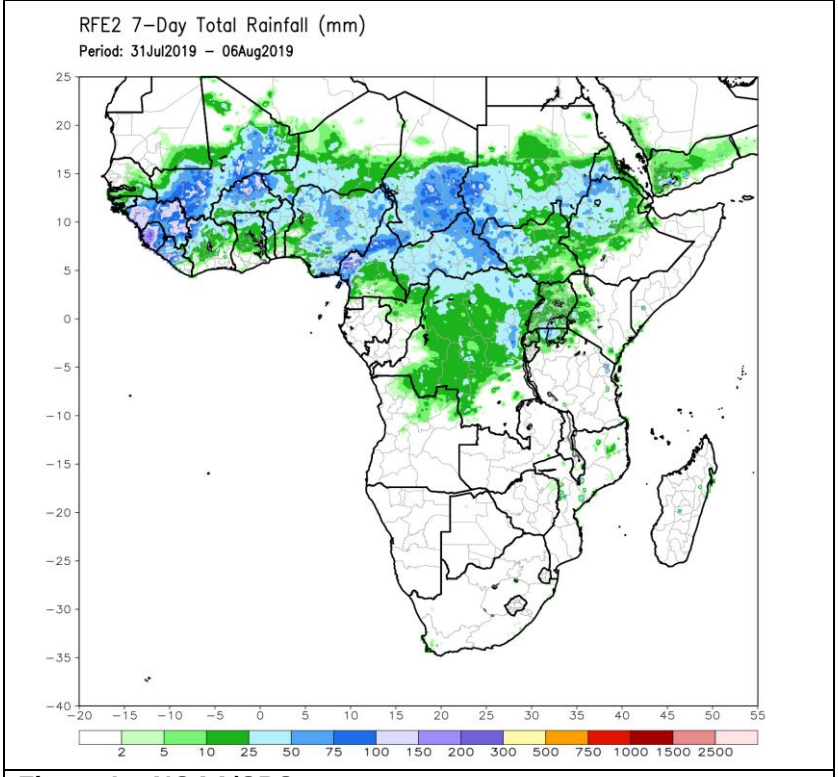


Figure 1: NOAA/CPC

3-month Satellite-Estimated Rainfall Anomaly (mm)
Valid: June 1 – August 6, 2019

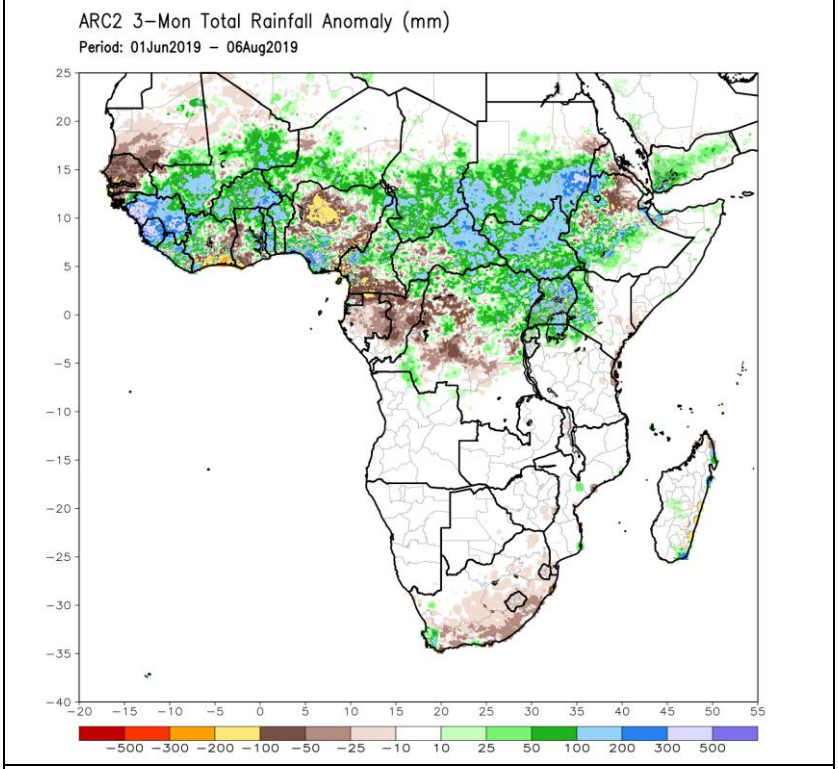


Figure 2: NOAA/CPC

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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