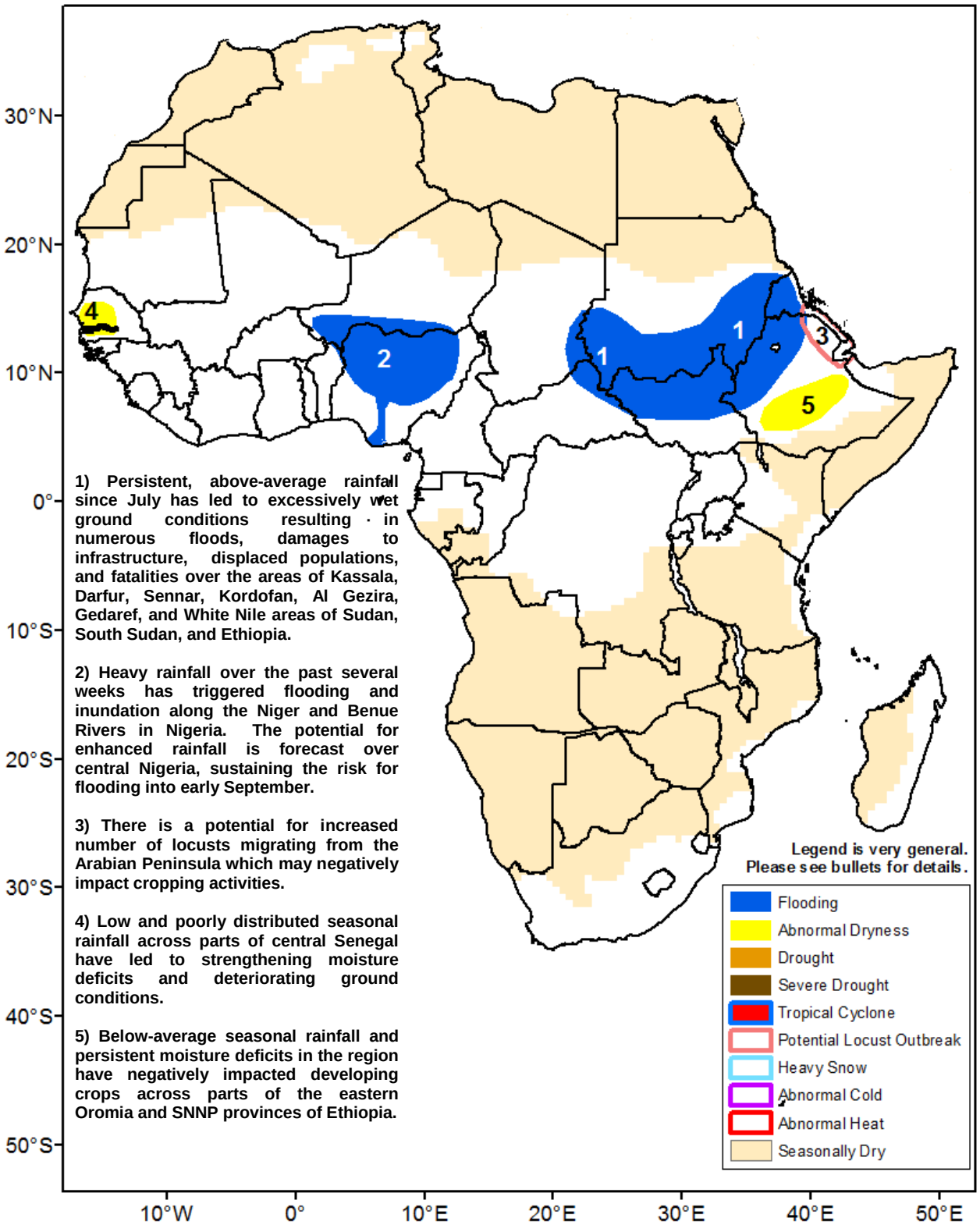
Climate Prediction Center's Africa Hazards Outlook
September 1 – September 7, 2016

- **Despite a continued reduction in rainfall since mid-August, flooding remains a threat across East Africa.**
- **Heavy seasonal rains continue to elevate river levels along the Niger and Benue Rivers in Nigeria.**



1) Persistent, above-average rainfall since July has led to excessively wet ground conditions resulting in numerous floods, damages to infrastructure, displaced populations, and fatalities over the areas of Kassala, Darfur, Sennar, Kordofan, Al Gezira, Gedaref, and White Nile areas of Sudan, South Sudan, and Ethiopia.

2) Heavy rainfall over the past several weeks has triggered flooding and inundation along the Niger and Benue Rivers in Nigeria. The potential for enhanced rainfall is forecast over central Nigeria, sustaining the risk for flooding into early September.

3) There is a potential for increased number of locusts migrating from the Arabian Peninsula which may negatively impact cropping activities.

4) Low and poorly distributed seasonal rainfall across parts of central Senegal have led to strengthening moisture deficits and deteriorating ground conditions.

5) Below-average seasonal rainfall and persistent moisture deficits in the region have negatively impacted developing crops across parts of the eastern Oromia and SNNP provinces of Ethiopia.

General reduction in West Africa rainfall observed in August compared to July.

During the last week, a fairly seasonable distribution of precipitation was observed, with increased rains received further south across many Gulf of Guinea countries. According to satellite rainfall estimates, the highest weekly accumulations (>100mm) were received in pockets across western Guinea, southern Mali, Burkina Faso, Cote d'Ivoire, and southeastern Nigeria (**Figure 1**). Light to moderate rainfall accumulations were also received further north into more arid regions of Mauritania, northern Mali, and Niger.

In a month by month analysis of West Africa seasonal rainfall, the rainfall performance in August has generally been much lesser in amount compared to the amounts received during July. In portions of western Senegal, Mauritania, Guinea, Sierra Leone, Liberia, Mali, and Ghana, rainfall accumulations during the earliest weeks of the monsoon have been nearly twice as much than rains received in August, when the monsoon typically reaches its climatological peak (**Figure 2**). While the prevailing lessening in seasonal rainfall is expected to mitigate many anomalously wet regions and the associated flooding impacts, a return to an enhanced seasonal rainfall regime in September may re-aggravate saturated ground conditions, and trigger additional floods and other adverse impacts. In Nigeria, heavy rainfall since late July continues to lead to inundation along the Niger and Benue rivers.

For the upcoming outlook period, precipitation models suggest the southward shift in the monsoon circulation, bringing heavy shower activity over many portions of Guinea, Sierra Leone, Cote d'Ivoire, and Ghana. Portions of central Nigeria, western Mali, Senegal, and southern Mauritania are also expected to receive average to above-average rainfall during early September.

Dryness strengthens across parts of Uganda, South Sudan, and southern Ethiopia.

In eastern Africa, suppressed rainfall in August has continued to slowly strengthen negative rainfall anomalies over the past month, affecting portions of southern Ethiopia, southern South Sudan, and northern Uganda (**Figure 3**). Comparison with remotely sensed vegetation health indices corroborates a shortage of available ground moisture, as conditions have been declining across the region over the past few weeks. Much of the dryness in northern Uganda and South Sudan has been associated with periods of little to no rainfall (dry spells) during July and August.

For the upcoming outlook period, little change in the distribution of rainfall is forecast with enhanced precipitation expected towards the north over western Ethiopia, and suppressed precipitation expected towards the south over South Sudan and Uganda, and southern Ethiopia.

Satellite-Estimated Total Rainfall (mm)
Valid: August 21 – 27, 2016

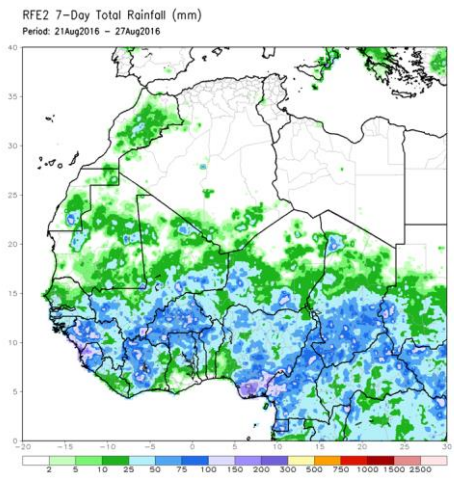


Figure 1: NOAA/CPC

Satellite-Estimated Monthly Rainfall Difference (mm)
July divided by August, 2016

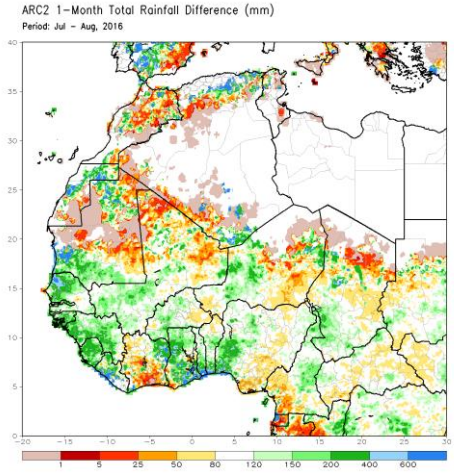


Figure 2: NOAA/CPC

90-Day Satellite Estimated Rainfall Anomaly (%)
Valid: May 30 – August 27, 2016

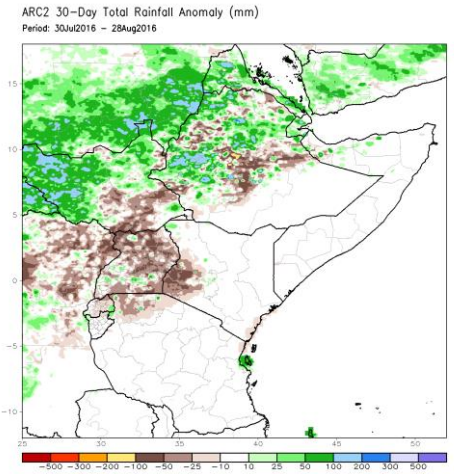


Figure 3: NOAA/CPC

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.

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