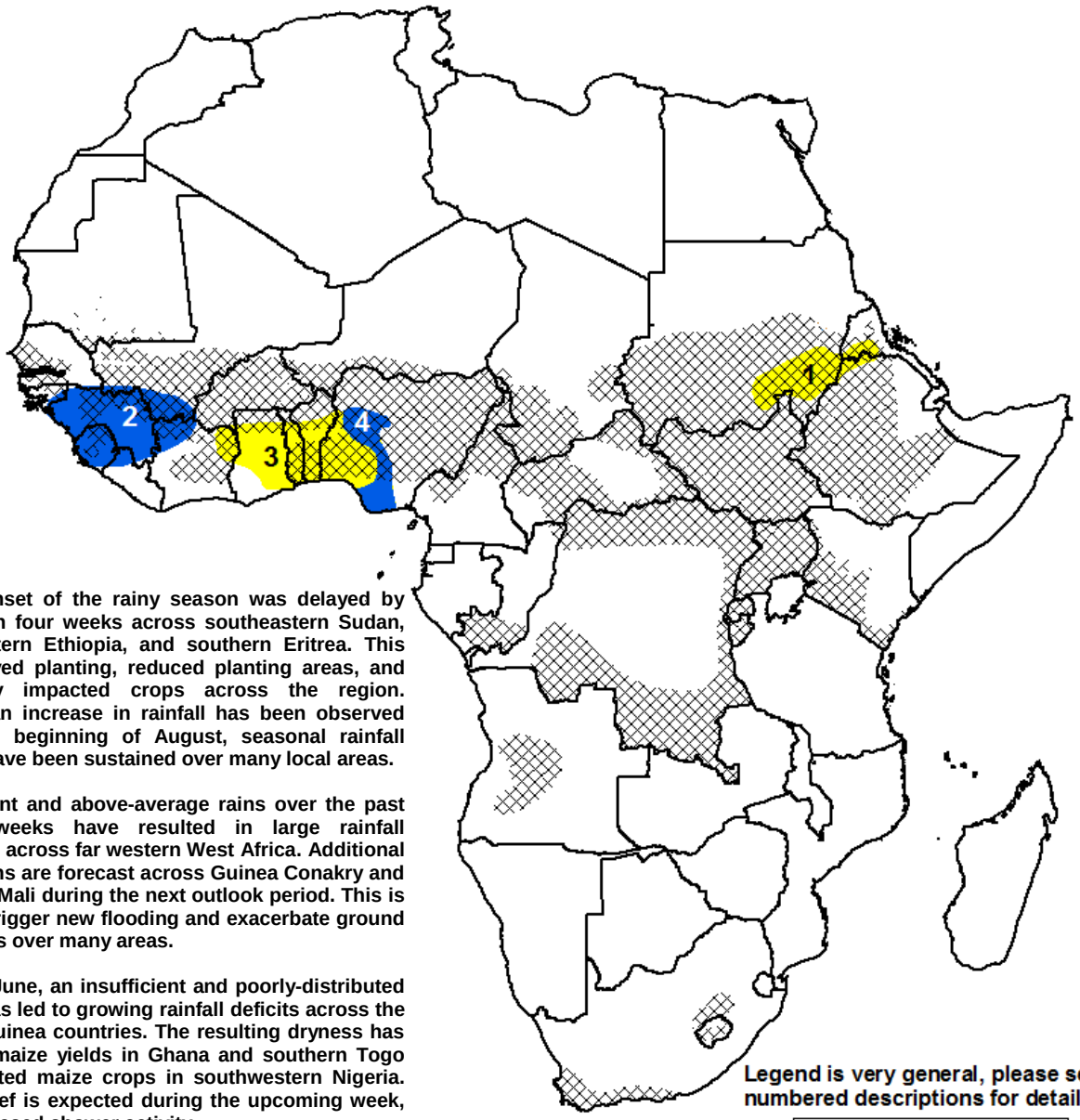
Climate Prediction Center's Africa Hazards Outlook
September 5 – September 11, 2013

- **Heavy, above-average seasonal rainfall continued over Guinea, and the western Sahel region.**



1) The onset of the rainy season was delayed by more than four weeks across southeastern Sudan, northwestern Ethiopia, and southern Eritrea. This has delayed planting, reduced planting areas, and negatively impacted crops across the region. Though an increase in rainfall has been observed since the beginning of August, seasonal rainfall deficits have been sustained over many local areas.

2) Frequent and above-average rains over the past several weeks have resulted in large rainfall surpluses across far western West Africa. Additional heavy rains are forecast across Guinea Conakry and southern Mali during the next outlook period. This is likely to trigger new flooding and exacerbate ground conditions over many areas.

3) Since June, an insufficient and poorly-distributed rainfall has led to growing rainfall deficits across the Gulf of Guinea countries. The resulting dryness has reduced maize yields in Ghana and southern Togo and affected maize crops in southwestern Nigeria. Some relief is expected during the upcoming week, with increased shower activity.

4) Heavy amounts of precipitation in late August led to flooding across the northern Nigeria, and increased water discharges at the Kainji, Shiroro, and Jebba dams in the southern Kebbi, and Niger states of the country. This has elevated the risk for basin inundation along the Niger River for many local areas downstream.

No relief to heavy rainfall in far western Africa

During the past seven days, torrential (> 75 mm) rains continued across the far western portions of the region, including southern Senegal, Guinea, Sierra Leone, and western Mali. The highest rainfall accumulations (>150mm) were received along the Guinea and Sierra Leone coast. The consistent heavy rains over the past several weeks have continued to sustain thirty-day rainfall surpluses, and overly saturate ground conditions over Guinea Conakry, Sierra Leone, and parts of western Mali. Further east, moderate to locally heavy rains were also received across parts of western Niger, as well as, central Nigeria. In the Gulf of Guinea region, an increase in the amount weekly rainfall was observed compared to the past several weeks, however little and light precipitation was still observed over much of southern Ghana and Cote d'Ivoire (**Figure 1**).

An analysis of the percent of normal rainfall encompassing most of the month of August depicts mostly favorably above-average rainfall throughout much of the Sahel. The highest 30-day moisture surpluses exceeding twice the normal amounts are located across much of Guinea, Sierra Leone, and in parts of western Mali and western Niger (**Figure 2**). Due to the higher frequency of August rainfall in Guinea, Sierra Leone, and western Mali, there remains a heightened risk for localized flooding during early September. In the Gulf of Guinea region, however, 30-day moisture deficits continue to be sustained. The driest conditions (> 25 percent of normal) are observed across southern Ghana, Togo, Benin, and southwestern Nigeria.

In Nigeria, the anomalous seasonal dryness has already negatively impacted the development of maize crops. However, increased precipitation across the northern states of Nigeria during the last week have led to localized flooding and increased water discharges at the Kainji, Shiroro, and Jebba dams in the southern Kebbi, and Niger states. While the increase in moisture is expected to mitigate seasonal dryness for many local areas in central Nigeria, this has elevated the risk for downstream basin flooding for several southern Nigerian states along the Niger River.

For the upcoming outlook period, precipitation forecasts suggest the continuation of heavy rainfall (>100mm) across many saturated areas in Guinea and Sierra Leone to sustain the risk for flooding (**Figure 3**). In the Sahel, decreased amounts of precipitation are forecast, and the seasonal equatorward migration of the ITCZ is expected in September. As a result, this should bring a gradual increase in rainfall and moisture to areas experiencing dryness in the southern Gulf of Guinea region during the next seven days. Moderate to heavy amounts of precipitation are also forecast for parts of southern Nigeria.

Satellite Estimated Rainfall (mm)
Valid: August 28th – September 3rd, 2013

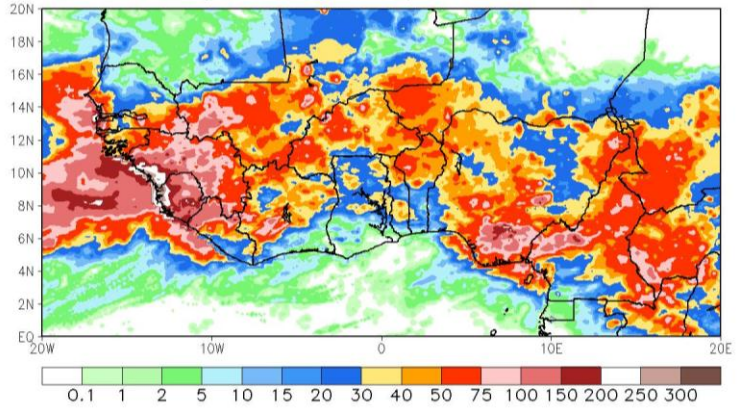


Figure 1: NOAA/CPC

Satellite Estimated Percent of Normal Rainfall (%)
Valid: August 5th – September 3rd, 2013

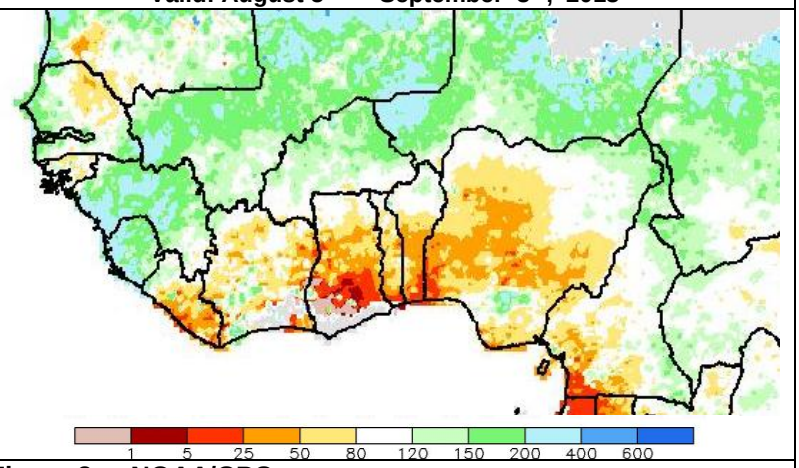


Figure 2: NOAA/CPC

GFS Precipitation Forecast (mm)
Valid: June 1st – August 26th, 2013

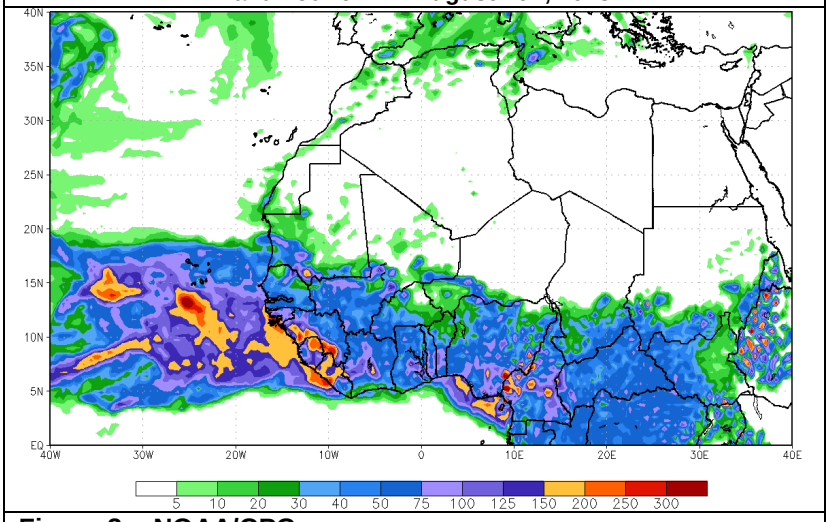


Figure 3: NOAA/CPC

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.

Questions or comments about this product may be directed to Wassila.Thiaw@noaa.gov or 1-301-683-3424.