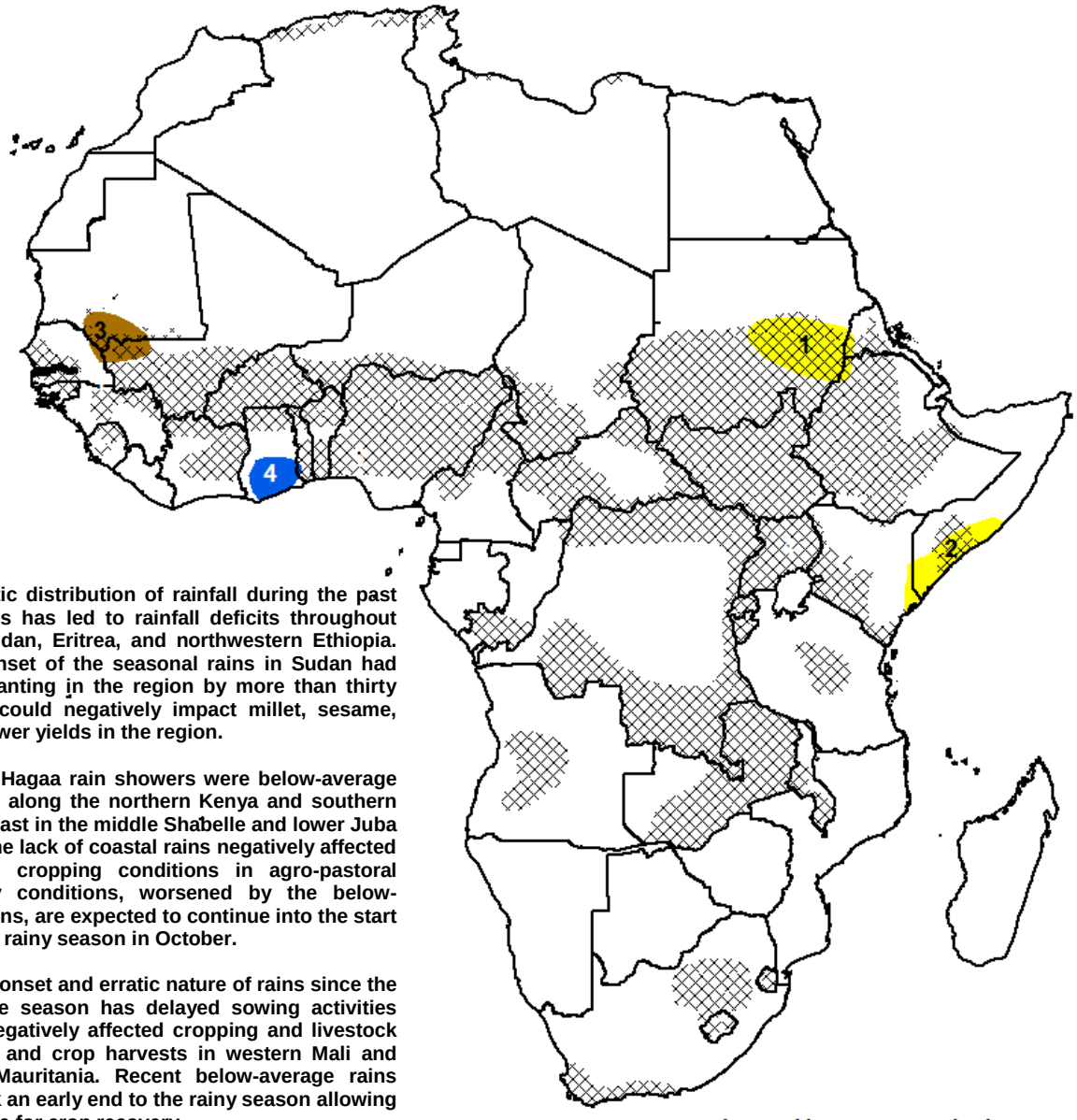
Climate Prediction Center's Africa Hazards Outlook
For USAID / FEWS-NET
September 29 – October 5, 2011

- **Heavy rains along the Gulf of Guinea caused flooding in portions of Ghana during the past week.**
- **Below-average rains were observed across much of central Sudan increasing thirty-day rainfall deficits.**



1) An erratic distribution of rainfall during the past two months has led to rainfall deficits throughout eastern Sudan, Eritrea, and northwestern Ethiopia. The late onset of the seasonal rains in Sudan had delayed planting in the region by more than thirty days and could negatively impact millet, sesame, and sunflower yields in the region.

2) Coastal Hagaa rain showers were below-average and erratic along the northern Kenya and southern Somalia coast in the middle Shabelle and lower Juba regions. The lack of coastal rains negatively affected crops and cropping conditions in agro-pastoral areas. Dry conditions, worsened by the below-average rains, are expected to continue into the start of the Deyr rainy season in October.

3) The late onset and erratic nature of rains since the start of the season has delayed sowing activities and has negatively affected cropping and livestock conditions and crop harvests in western Mali and southern Mauritania. Recent below-average rains could mark an early end to the rainy season allowing little chance for crop recovery.

4) Torrential rains during the past week have caused flooding in the eastern region of Ghana which has resulted in fatalities, displacement of local populations and damages to infrastructure. With moderate to heavy rain forecast, additional flooding could occur over already saturated and flood-prone areas in Ghana.

Heavy rains recorded along the Gulf of Guinea.

During the past week, rainfall across West Africa was heavy along the Gulf of Guinea. The highest rainfall totals (> 50 mm) were observed in Nigeria, Ghana, Cote D'Ivoire, Liberia, Sierra Leone and Guinea. The abundant, above-average rain that fell over Guinea increased thirty-day rainfall surpluses over the region and continued to keep ground conditions saturated. The torrential rain in Ghana caused localized flooding in the eastern region resulting in fatalities and displacement of local populations. While weekly rainfall was generally above-average along most of the Gulf of Guinea and across West Africa, areas located further north into the Sahel observed below-average, light to moderate rainfall (5-30 mm) (**Figure 1**). Thirty-day rainfall deficits strengthened across areas like Burkina Faso, Niger and Mauritania. Due to the expected southward progression of the ITF, rainfall will continue to become lighter across the Sahel during the next several weeks.

An analysis of moisture during the second dekad of September indicates a disparity in conditions between the Gulf of Guinea and areas further north. Recent heavy rains, especially in southern Nigeria, have resulted in high moisture index values across southern West Africa. The abundant rain should provide adequate cropping conditions. Meanwhile, conditions are dry across southern Mauritania, northern Senegal and parts of Mali and Niger (**Figure 2**). Past months of erratic rainfall and dry conditions across southern Mauritania and western Mali have negatively affected cropping activities. Since the end of season is near, additional rains will provide little relief.

For the next week, moderate to heavy rain (> 30 mm) is expected along the Gulf of Guinea increasing the risk for flooding over portions of Ghana. Further north, light rains (< 15 mm) are forecast across much of the Sahel as the ITF progresses south over West Africa.

Satellite Estimated Rainfall (mm)
Valid: September 20th – September 26th, 2011

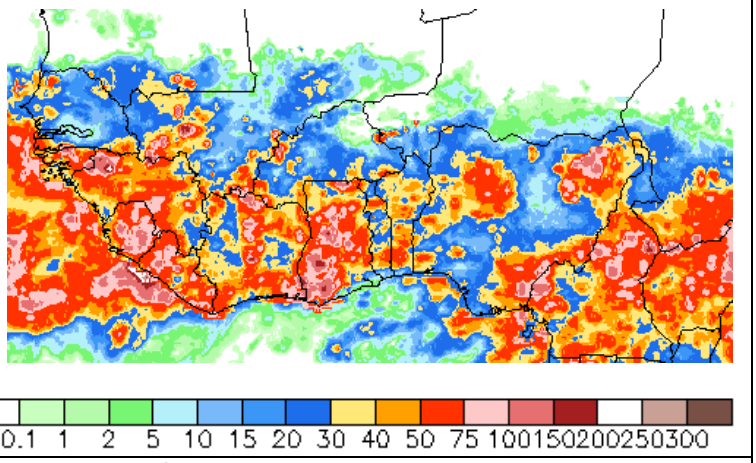


Figure 1: NOAA/CPC

Moisture Index (%)
Valid: As of the 2nd dekad of September, 2011

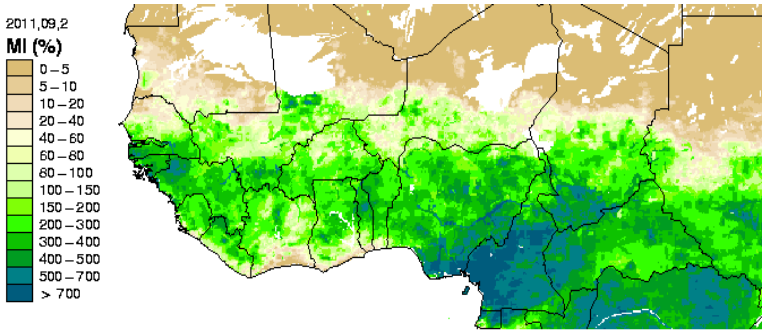


Figure 2: USGS/EROS

Below-average rains observed over central Sudan.

During the past week, rain was below-average over much of eastern Africa. The heaviest rain (> 40 mm) fell across western Ethiopia and the border region between Sudan and the Republic of South Sudan. In saturated areas in Uganda and Kenya, moderate to locally heavy rain (> 30 mm) was observed providing some relief from past flooding. In Ethiopia, rains were near-average, but rainfall deficits to date have already affected long cycle crops like sorghum in the northwest lowlands. In contrast, dry northeasterly winds helped cause below-average weekly rainfall (10-25 mm below-average) across central and eastern Sudan including the Darfur and Kordofan regions (**Figure 3**). The below-average rains increased thirty-day rainfall deficits to between 10-50 mm. The lack of average rainfall over northeastern Sudan has negatively affected cropping activities. Since the rainy season climatologically ends during October, additional rains might arrive too late to provide much relief. Forecasts for the next week indicate a second week of reduced and below-average rainfall across much of Sudan (< 20 mm) with the heaviest rain (> 40 mm) expected over localized areas in Ethiopia, Uganda and southern portions of South Sudan. Further east, an increase in moisture is expected across central and northern portions of Somalia.

Satellite Estimated Rainfall Anomaly (mm)
Valid: September 20th – September 26th, 2011

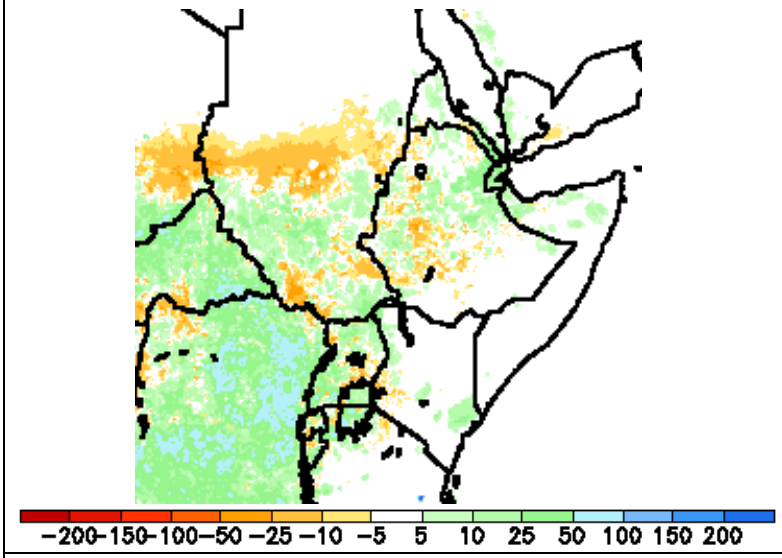


Figure 3: NOAA/CPC

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.