The USAID FEWS NET Weather Hazards Impacts Assessment for Africa August 26 – September 1, 2010

- **Very heavy rainfall led to flooding across coastal countries of West Africa.**
- **Abundant rains fell over the highlands of Ethiopia and localized areas of Sudan elevating river levels and leading to flooding.**

1). The abundant rain which has fallen for the past month over the highlands of Ethiopia and eastern Sudan has led to elevated water levels along the Blue and White Nile River, the Atbara River and the Gash River which could potentially cause flooding and damage to infrastructure to areas along the rivers.

2). High rainfall totals over the Awash catchment and Afar region in Ethiopia has led to localized flooding affecting crops.

3). Heavy rainfall across portions of the Kordofan and Darfur region of Sudan has led to flooding in central Sudan and in El Fasher in Northern Darfur. Heavy rains are expected next week as well continuing the flooding threat.

4). After several weeks of above average precipitation, flooding was reported in the Kolda region of Senegal. Flooding potential remains high over portions of Mali, and Senegal as above average rains are expected to continue this week over already saturated soils.

Legend is very general, please see numbered descriptions for details.

- August Cropped Areas
- Favorable
- Somewhat Favorable
- Flooding
- Short-term Dryness
- Drought
- Improving Drought

The heaviest rainfall shifted to the coast of West Africa during the last week leading to flooding in Senegal.

Rain over the past seven days was above average over a large portion of West Africa. In contrast to the previous week where ample rains were observed over Mali and Burkina Faso, the heaviest rainfall (> 75 mm) this past week was shifted further west along the coast. These rains provided relief along Cote d'Ivoire and Ghana which had seen little rainfall over the past several weeks. Significantly high precipitation totals (> 200 mm) fell over western Cote d'Ivoire with a large portion of Cote d'Ivoire, Liberia, Mali, Senegal, and Guinea observing greater than 75 mm in the last week. In particular, the copious amounts of rain across Senegal led to flooding, fatalities and damage to infrastructure in the Kolda region. Across central Mali, Burkina Faso, Ghana, Togo and Benin, less rainfall was observed as totals ranged from 50-75 mm. The least amount of rain was observed over northeastern Nigeria and central Niger which saw below average rains (< 20 mm) (**Figure 1**).

Basin excess rainfall analysis suggest that the anomalous rains that fell over climatologically dry areas of West Africa during the second dekad of August have created flooding concerns in Mauritania and Mali (**Figure 2**).

The potential for heavy localized rainfall (> 50 mm) is expected to remain high for Ghana, northern Cote d'Ivoire, Guinea, eastern Senegal, Mali, western and central Niger, and Nigeria. While widespread heavy rainfall is not expected, the isolated heavy rains could cause flooding.

River levels continue to be elevated after another week of heavy rainfall across the highlands of Ethiopia.

This past week saw above average rain fall across the highlands of Ethiopia. Rainfall surpluses over the past month across the highlands have reached 150 mm. An analysis of excess rainfall shows a high risk of flooding during the second dekad of August in the Tigray, Amhara, Afar and Oromiya regions of Ethiopia (**Figure 2**). In fact, localized areas in the Afar region of Ethiopia have observed flooding which has affected crops. Elsewhere, due to the surplus of rain, water levels of several rivers in Ethiopia, Eritrea and Sudan are at high levels. Elevated water levels along the Blue and White Nile Rivers in Sudan are at high risk levels causing concerns of flooding as far north as Khartoum in Sudan. A similar situation exists for the Gash River into Kassala in Sudan as it is expected to overflow its banks potentially causing property and crop damage. The water level of the Atbara River remains stable but at a high level potentially affecting low lying cropping areas along the river. Further west in Sudan, heavy rainfall (locally > 100 mm) across the Kordofan region and in El Fasher, the capital of Northern Darfur, led to flooding and damage to infrastructure (**Figure 3**).

Rainfall is expected to be above average over the highlands of Ethiopia for the next week which could further exacerbate flooding conditions along the Blue and White Nile River, the Atbara River and the Gash River. Heavy rainfall (> 50 mm) is also forecast to occur over the Darfur region of Sudan which potentially could cause flooding in localized areas.

Satellite Estimated Precipitation (mm)
Valid: August 17 – August 23, 2010

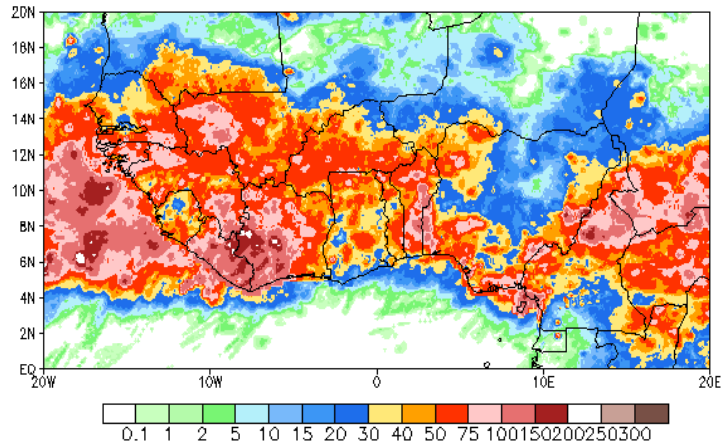

Figure 1: NOAA/CPC

Basin Excess Rainfall Map - Catchments
Valid: August 2010, dekad 2

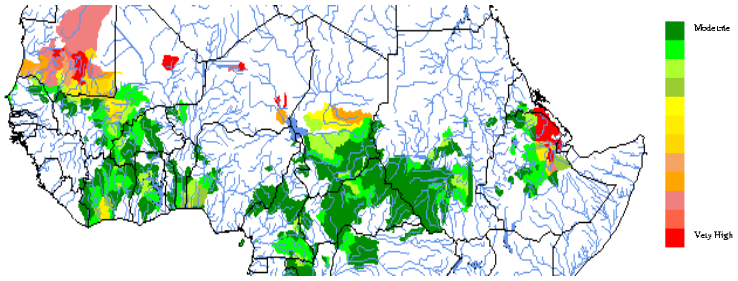

Figure 2: USGS/EROS

Satellite Estimated Precipitation (mm)
Valid: August 17 – August 23, 2010

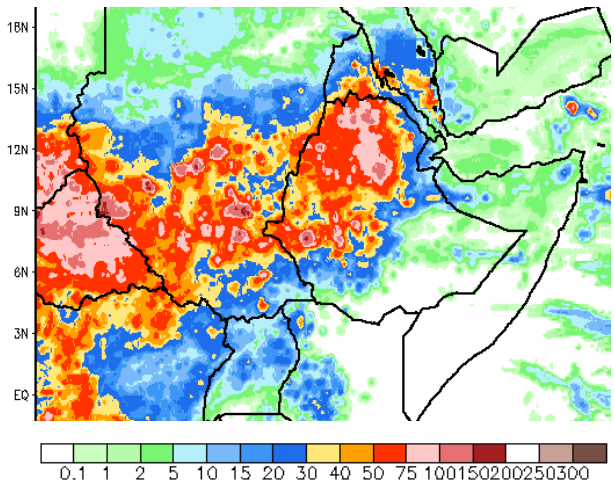

Figure 3: NOAA/CPC

Note: The hazards assessment 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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