SAHEL ET L'AFRIQUE DE L'OUEST

Rapport Spécial sur la pluviométrie et les inondations au Burkina Faso et Ghana

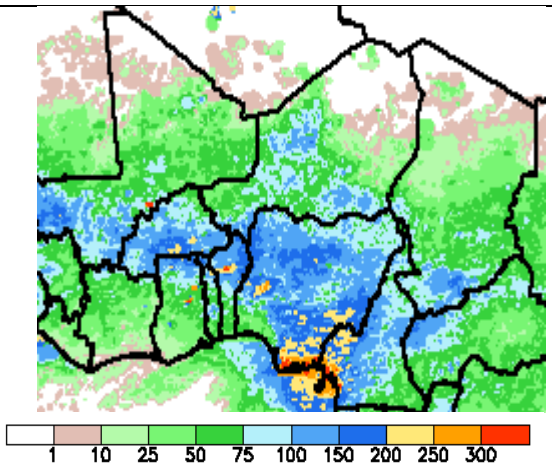
Septembre 14,2007

Rainfall and Flood pattern in West Africa: Qualifying the Flooding in Ghana

Discussion

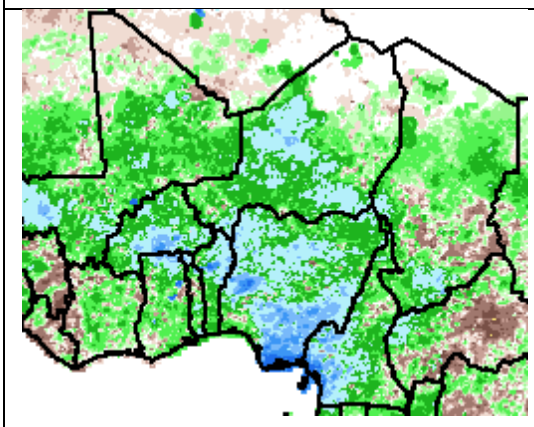
What is the likely extent of flooding in Ghana? **To the right**, the total rainfall in mm is shown for the reported period of heaviest rains, August 24-29, 2007. Note that the heaviest amounts are recorded in Burkina, consistent with reports that several dams had to be opened there to avoid rupture. See the **2 images below** that show the rains compared to the norm for this period. Anomalies of 50-200mm are seen around Ghana's northern border.

Total rainfall amount in mm
August 21-31, 2007 (FEWS: NOAA/CPC)

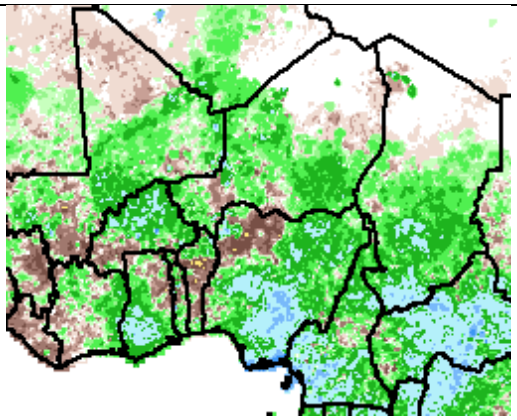


Rainfall Anomalies in mm (FEWS: NOAA/CPC)

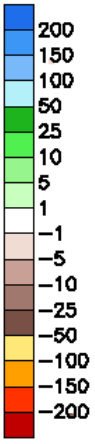
August 21-31, 2007



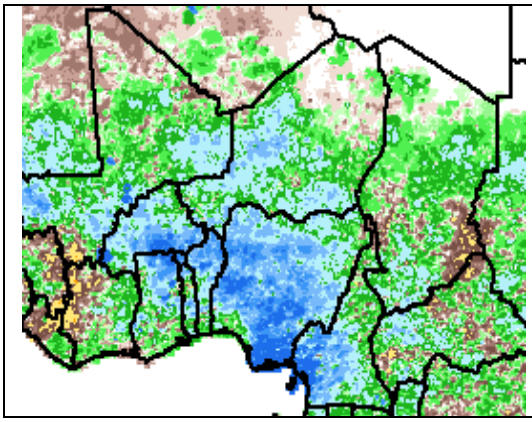
September 1-10, 2007



Anomalies in MM



August 2007 Rainfall Anomaly

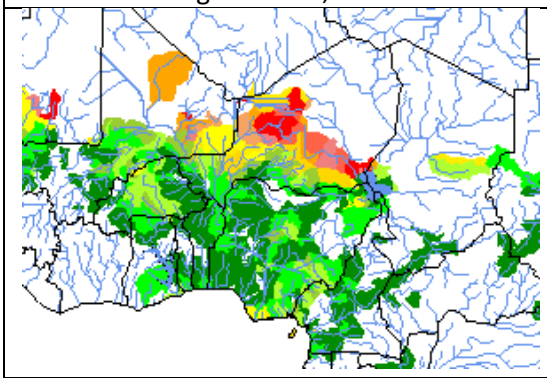


Discussion

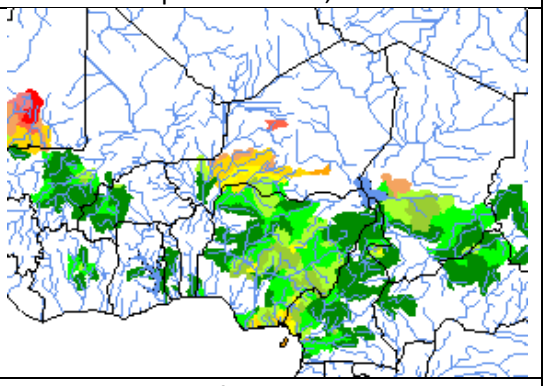
Rainfall at the end of August, and for the entire month, was above average in Burkina and northern Ghana, with amounts ranging from 50-200 mm above average for those periods. Note the same situation, much more widespread, in Nigeria and in the general region.

Catchment Basin Excess Rainfall (FEWS: USGS)

August 21-31, 2007



September 1-10, 2007

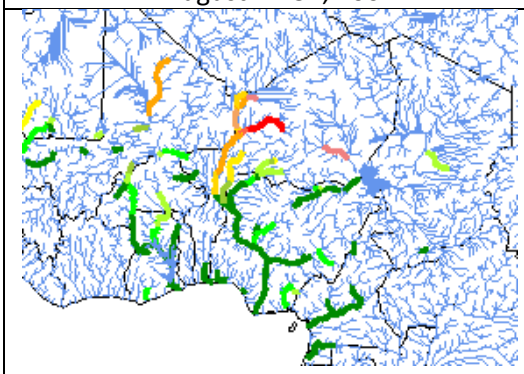


Extent of Excess (compared to historic average)

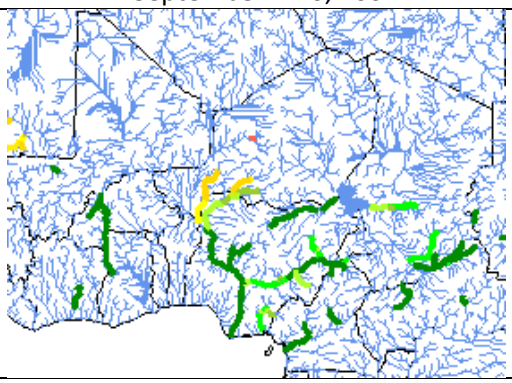
Discussion: By rainfall catchment basin, it can be seen that rainfall was more widespread and excessive over Burkina and Ghana in the last 10 days of August, and much more excessive in other parts of the region. Moderately excessive rainfall amounts were found in at least 3 of Ghana's catchment basins, including one in the southern half of the country.

River Basin Excess Rainfall (FEWS: USGS)

August 21-31, 2007



September 1-10, 2007



Discussion: The threat of flooding from excessive flow in river basins shows the same pattern between these two periods, and does identify several rivers that feed Lake Volta were capable of flooding. Note also some coastal areas in Ghana with a moderate possibility of flooding.

Overall initial conclusions: In Ghana, and between August 20 and September 10, the most likely locations of potential flooding would appear to exist most in the northern border areas of Ghana, and especially along certain water courses. Nevertheless, in relative terms, and at this resolution of data, the possibility of flooding in other West African areas is possibly higher in Nigeria, and just as likely in northern Togo, northern Benin, and in local areas of the Sahel. While none of the information above rules out the possibility of very local floods in Ghana, there is no evidence to suggest large areas are currently, or were recently, covered by floods. FEWS NET's weekly weather hazard teleconference on Tuesday September 18 will be able to give a more expert view of the recent conditions.