

SPECIAL ALERT – September 2018

NIGERIA floods disaster

Violent rainfall in Nigeria and along the upper Niger basin has led to major floods along the main rivers in Nigeria, the Niger and Benue river and the Red Cross estimates that nearly a quarter of a million households are affected. Rainfall is expected to continue in October.

According to Reliefweb “The resulting disaster is affecting 34 of the country’s 36 states and has caused 141 deaths and 265 injuries to date. The Government of Nigeria has declared a state of emergency in the four worst-affected states of Kogi, Niger, Anambra and Delta. The Nigerian Red Cross Society is conducting rapid assessments in coordination with the country’s National Emergency Management Agency.”

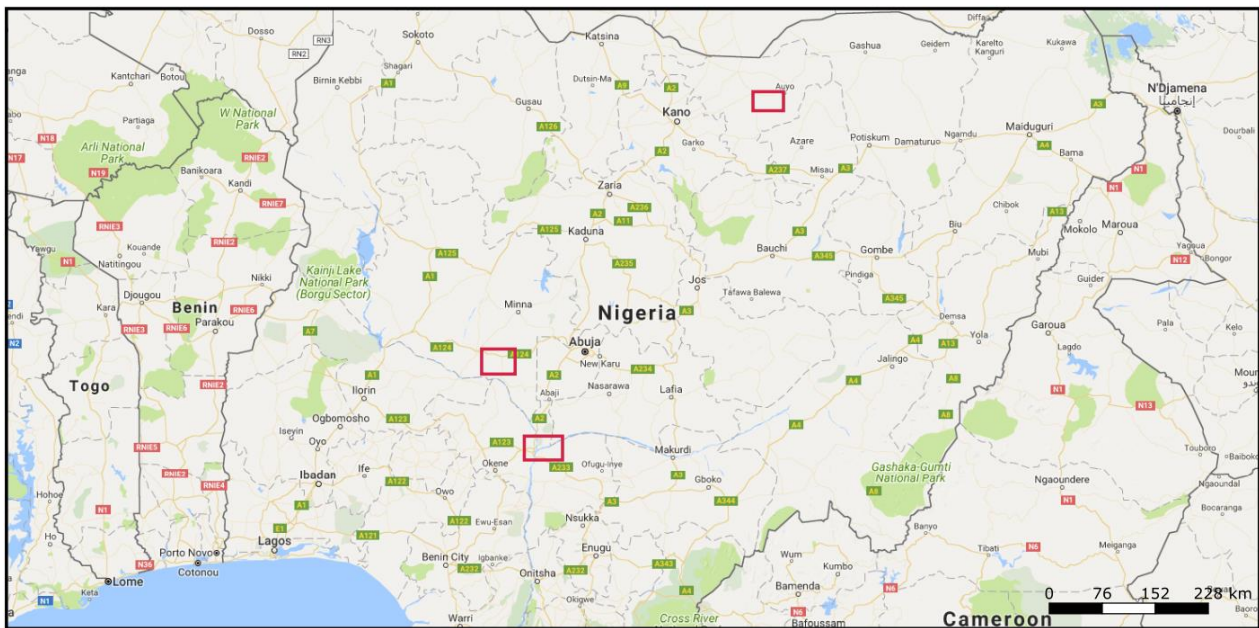


Figure 1. Overview map of Nigeria, where red rectangles indicate areas with zoomed maps included in this special alert.

Rainfall has been above average in large portions of the country since July and continued into September, with peaks of more than 75mm above average in the first 10 days of September (figure 2). Looking at the percentage anomalies over the last 90 days period, it is visible that exceptional rainfall characterized in particular the Niger river basin close to the border with Niger.

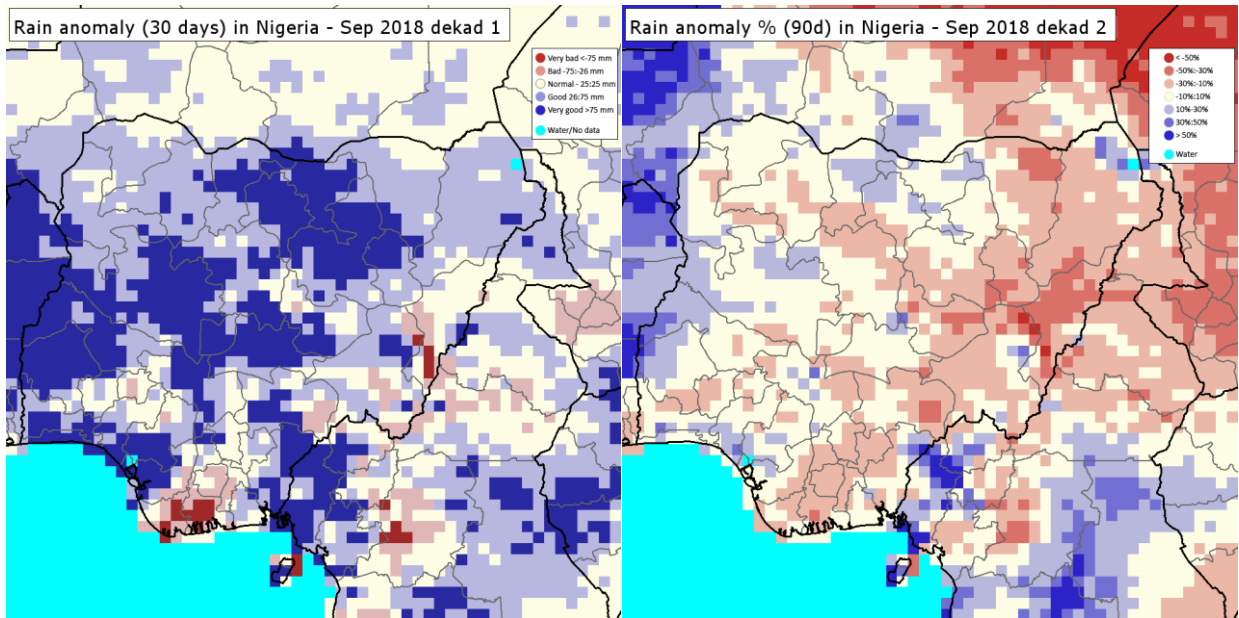


Figure 2. Rainfall estimates based on ECMWF data. Monthly anomaly in mm by the 10th of September (left) and 90 days anomaly in percentage (right).

According to media sources there is considerable damage to the road networks, increasing the risk of food shortages in isolated markets. Also extensive damage to crop areas has been reported. For example in Jigawa state: “Severe flood damage to agricultural crops means there is a risk that some communities will experience increased food insecurity throughout the harvest season. This concern was particularly raised in Jigawa state, where 46,000 farmers lost farmland to floodwaters (Daily Trust 20/09/2018).”

The flooding of large areas of farmland is well visible also on satellite imagery as shown by figures 3-5.

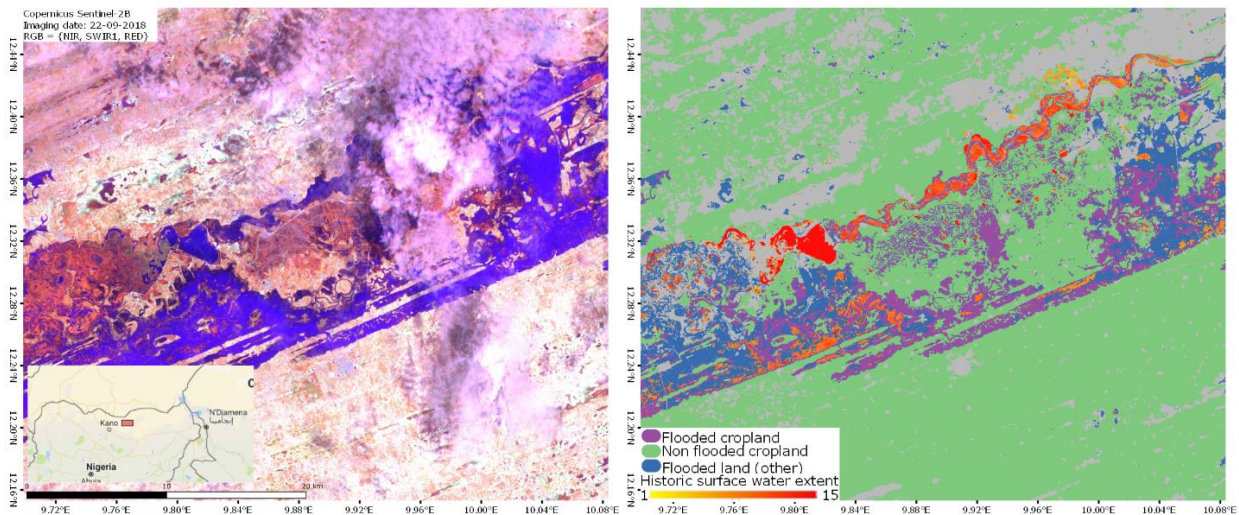


Figure 3. Crop areas along Hadejia River, in Jigawa state. SENTINEL2 data show the flooded areas on September 22nd (in purple in the satellite image on the left) and the extent of flooded crops and other land use (in the derived map on the right). For reference in orange/red (right) the areas which have been flooded from a minimum of 1 to a maximum of 15 times in the previous 15 years according to the Global Surface Water Explorer (JRC). The flooded cropland area corresponds to 1224 ha.

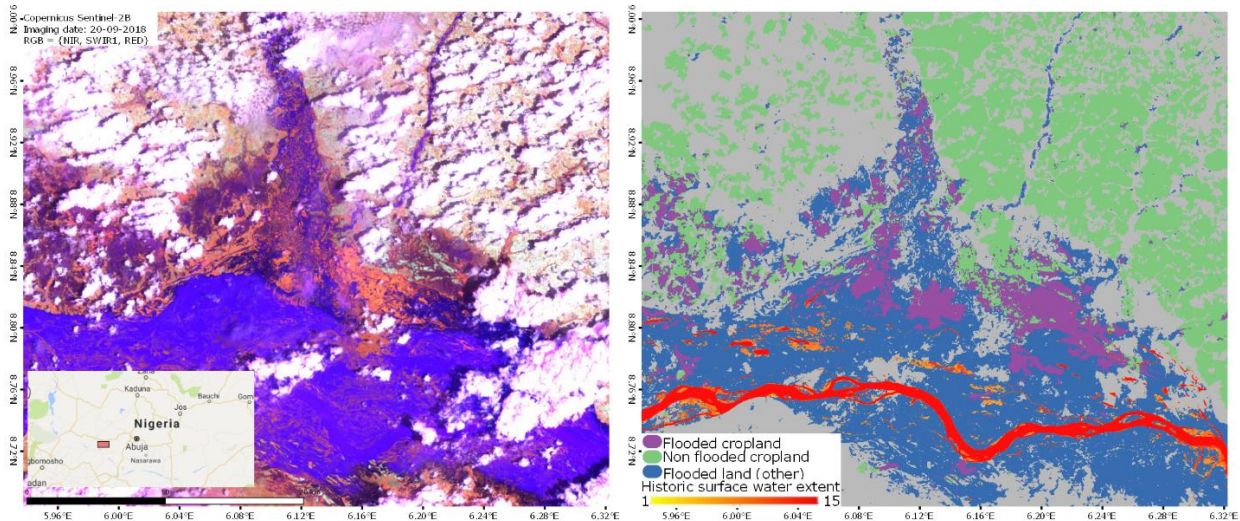


Figure 4. Crop areas along Niger River, in Niger state. SENTINEL2 data show the flooded areas on September 22nd (in purple in the satellite image on the left) and the extent of flooded crops and other land use (in the derived map on the right). For reference in orange/red (right) the areas which have been flooded from a minimum of 1 to a maximum of 15 times in the previous 15 years according to the Global Surface Water Explorer (JRC). The flooded cropland area corresponds to 2188 ha.

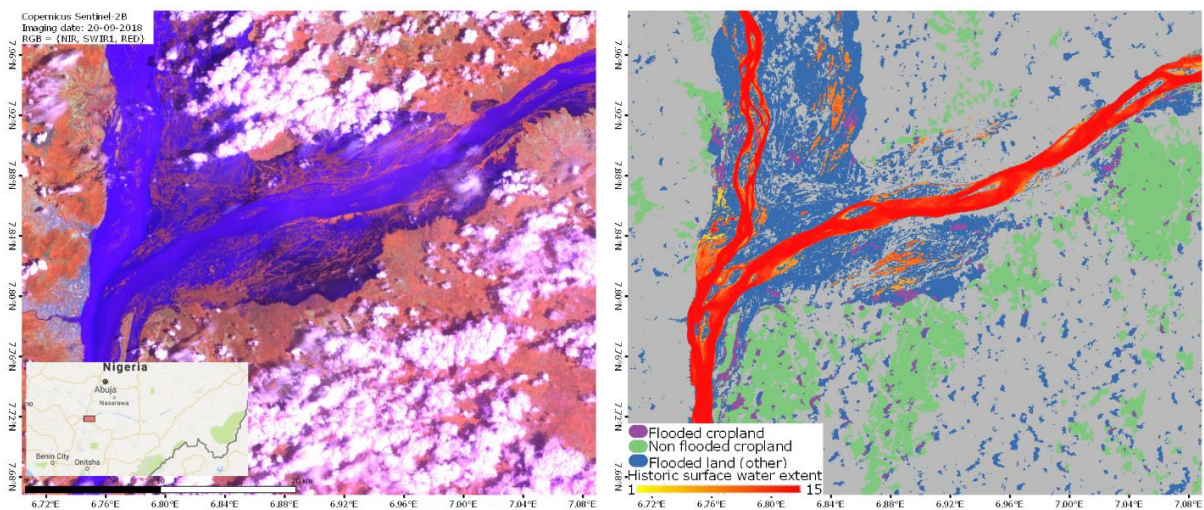


Figure 5. Crop areas along the intersection of Niger and Benue River, close to Lokoja, in Kogi state. SENTINEL2 data show the flooded areas on September 22nd (in purple in the satellite image on the left) and the extent of flooded crops and other land use (in the derived map on the right). For reference in orange/red (right) the areas which have been flooded from a minimum of 1 to a maximum of 15 times in the previous 15 years according to the Global Surface Water Explorer (JRC). The flooded cropland area corresponds to 262 ha.

More information can be found here:

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