



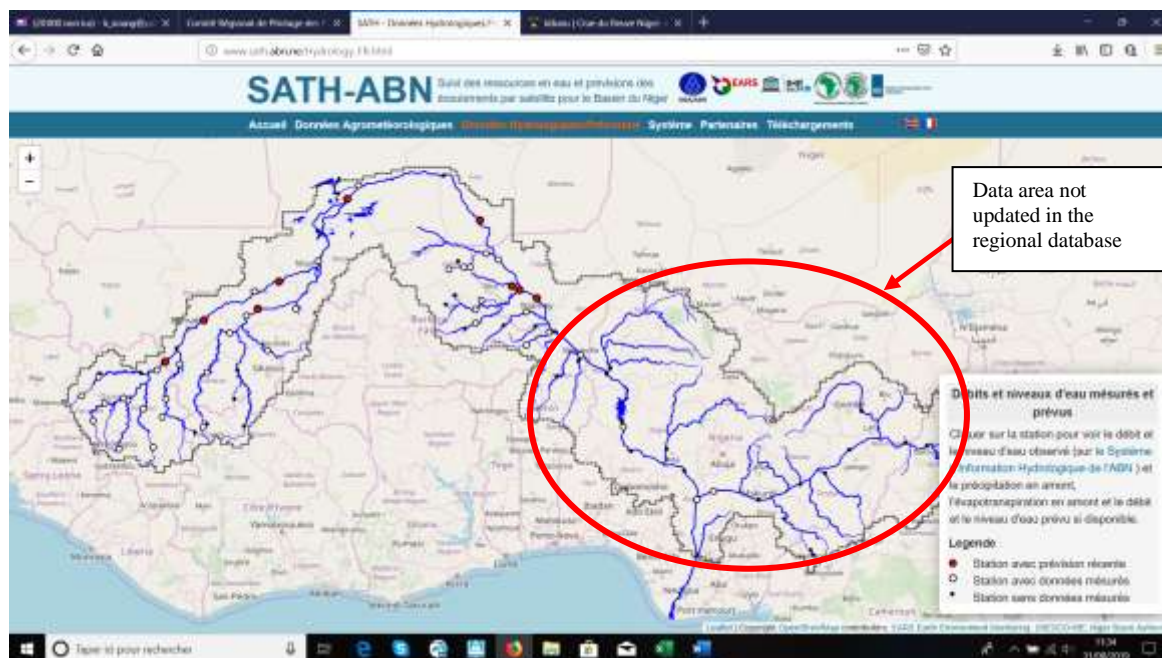
NBA ALERTS: DETAILED NOTE AND FORECASTS ON NIGER RIVER

31ST AUGUST 2019

INTRODUCTION

Niger River's local floods, which began in June and July in the upper basin in Guinea and Mali, and in mid-July in Niamey, continues. It is manifested by significant and sometimes quick variations in Niger River and its tributaries' water level. These variations have been more significant since mid-August 2019. The NBA Executive Secretariat, based on the availability of hydrological data, prepares flow forecasts on Niger River and its tributaries. The forecasts are available on: <http://www.sath.abn.ne/>.

Data available in the regional hydrological database were used for simulations to develop the following flow forecasts and analyses. The unavailability of data at the regional level on Lower Niger and Benue does not allow to make forecasts on this important portion of Niger River.



Generally speaking, the last decade of August 2019 recorded rainfall events all over Niger basin. Those rains have resulted in significant increase in rivers' water level. They were higher in Middle and Upper Niger as shown in the following figures:

Figure 1: Rainfall map of 23rd August 2019 for the whole Niger basin

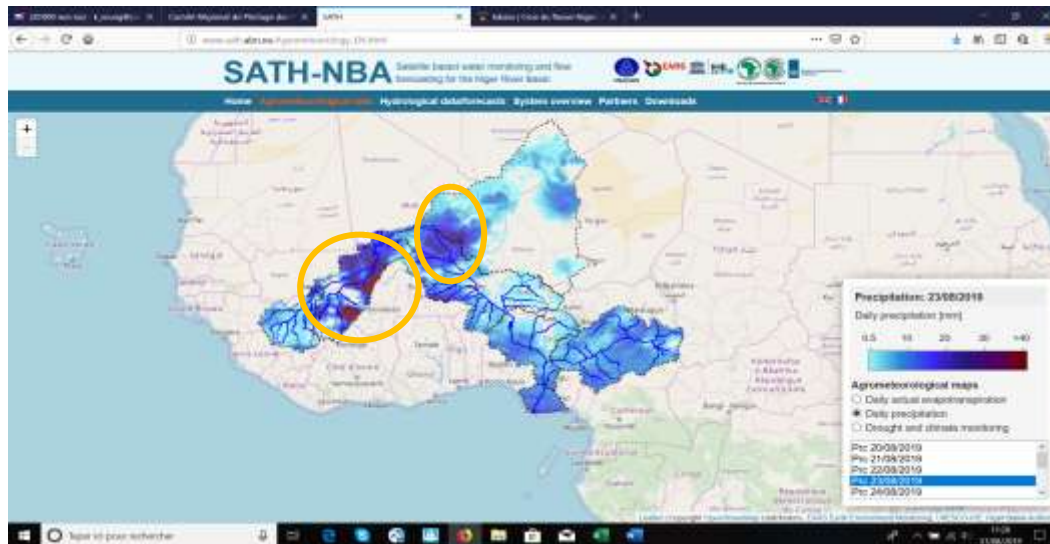


Figure 2: Rainfall map of 24th August 2019 for the whole Niger basin

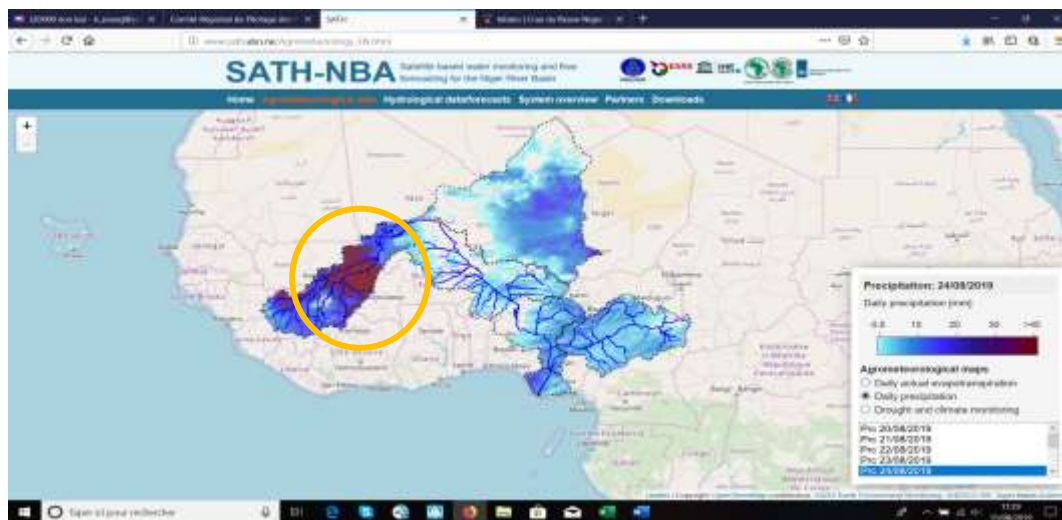
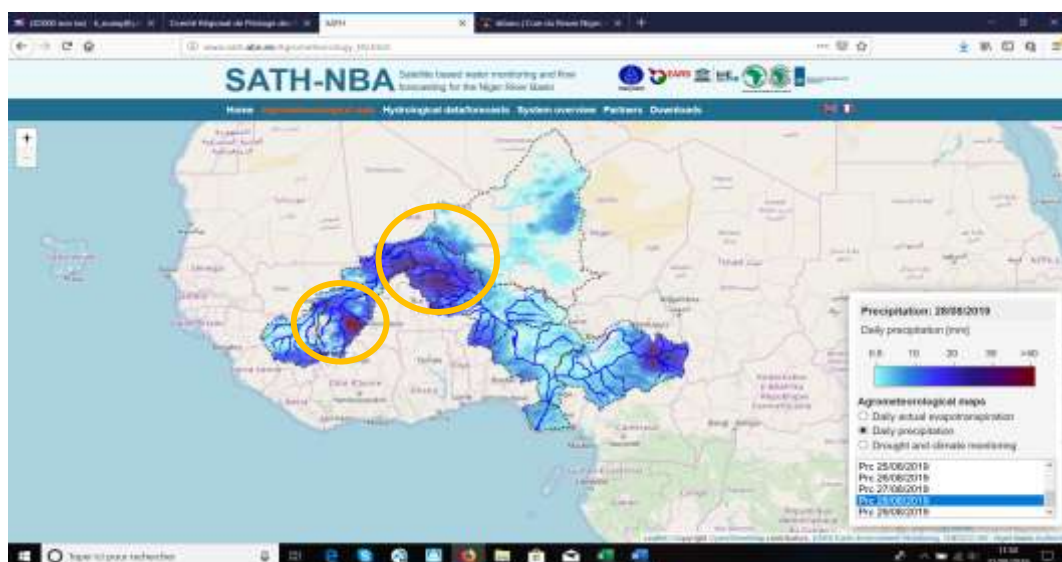


Figure 3: Rainfall map of 28th August 2019 for the whole Niger basin



1. SITUATION OF FORECASTS IN UPPER AND MIDDLE NIGER BASIN

One can access to forecasts made based on data available at NBA at the regional level on:
http://www.sath.abn.ne/Hydrology_FR.html#

In Mali

Two forecasts were developed at the level of the Banankoro and Koulikoro stations where the yellow alert level has been reached.

Figure 4: Alert levels at the Banankoro station

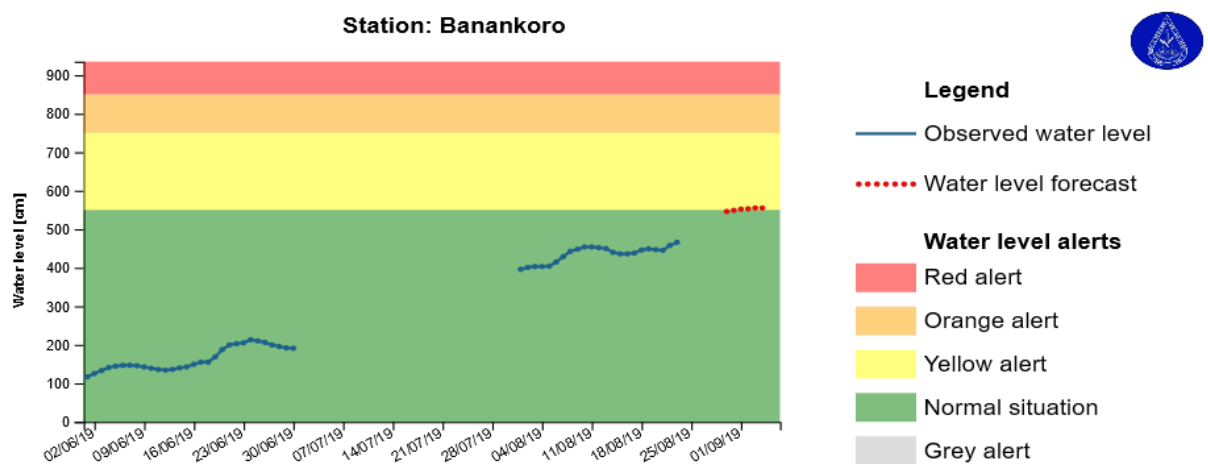
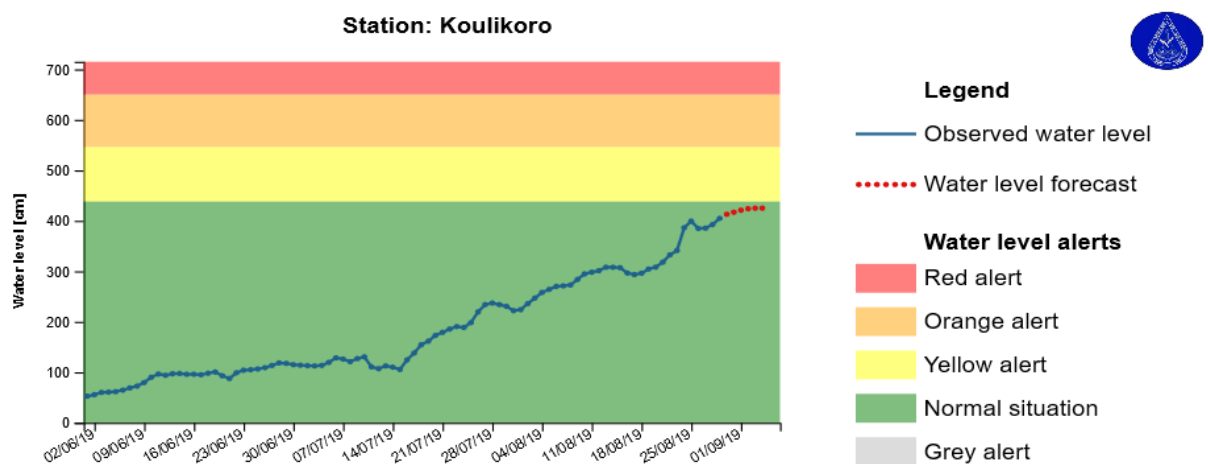


Figure 5: Alert levels at the Koulikoro station



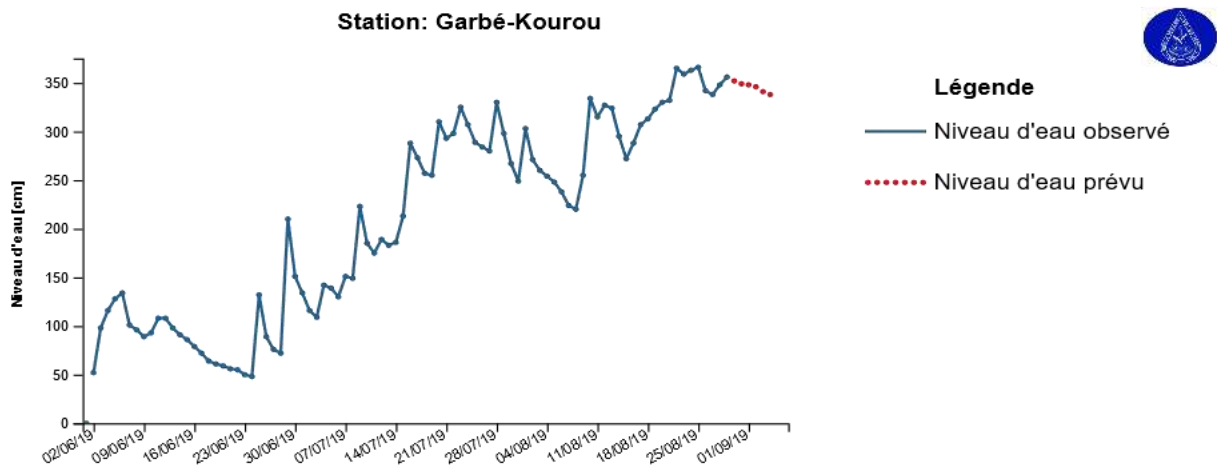
2. SITUATION IN MIDDLE NIGER

In Niger

During this local floods period, the main tributary on the right bank, the Sirba River, which has its source in Burkina Faso, significantly influences the water level at the Niamey station.

The forecasts for the next six (6) days show that the decrease that began today will continue over the next few days in case there is no significant rainfall upstream.

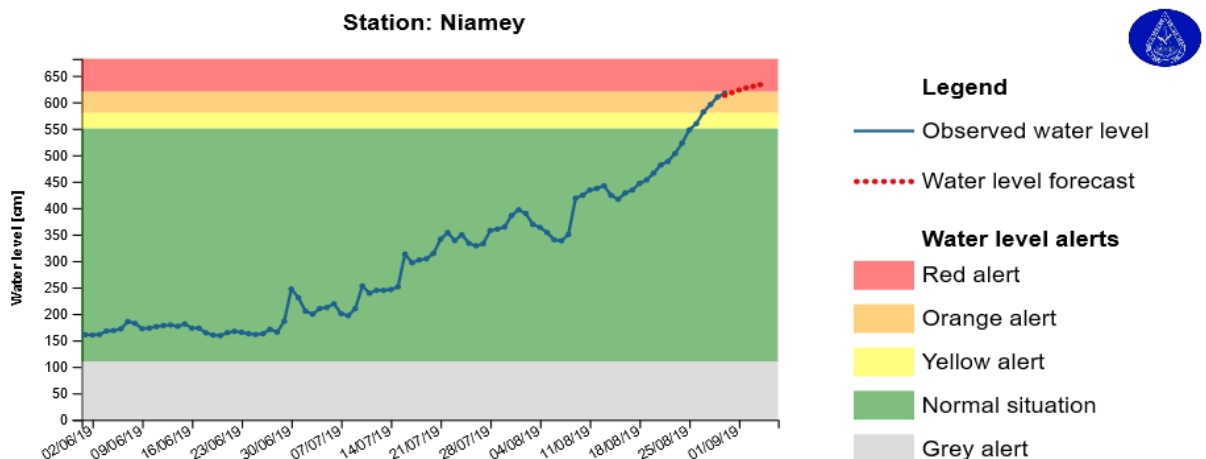
Figure 6: Six (6) day forecast in Garbé Kourou as from 30th August 2019



In Niamey, Niger, on River Niger: Red alert

The orange alert level (580 cm) was reached in Niamey on 27th August, 2019 and the rise in the water level has been quite rapid since then. Forecasts and observations show that the red alert level will be reached on 1st September following the 4 days of the observed orange alert.

Figure 4: Six (6) day forecast at the Niamey station as from 30th August 2019



CONCLUSION

The local floods period in August and September 2019 will be marked by significant variations in the water level of Niger River and its tributaries if the rainfall noticed over the last decade of August continues. The availability of hydrological data is necessary for developing timely forecasts needed for decision-making.

The forecasts developed based on available data, in Upper and Middle Niger, show that the Koulikoro station will be on yellow alert in the first week of September and, in Niamey, the situation is now on the red alert.

The red alert currently reached at the Niamey station is valid for downstream areas, including Benin and Nigeria. Benin should expect to record a further rise in the water level spreading to Malanville, thus maintaining the red alert in Malanville for at least the first decade of September 2019. Further downstream, the Jidere Bode station, in Nigeria, upstream of the Kainji Dam should expect to record these water level rises in the coming days.

Dam managers, irrigators along Niger River and all concerned riparian people should give priority to the greatest possible vigilance and to taking necessary measures.

The Niger Basin Authority is monitoring the situation and will provide information as it develops. To get an update on the forecasts, please consult the NBA website at www.sath.abn.ne.