AGRHYMET
West Africa and Sahel Regional Climate Center

Contribution of WADiRE in Flood risk Management in West-Africa

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Sahel and West-Africa are facing an unprecedented flood situation

- **Exponentially growth of flood occurrences in West-Africa**

- **Floods occur both along rivers and any low land areas**

- **The drivers of this situation combine climate, environmental and anthropogenic changes. The Sahelian has experienced more than 3 decades of consecutive droughts and that lead to a drought risk management culture in the region.**

- **The consequences are human, food, economic, cultural and other security issues. An entire cemetery was flooded in 2020 in Niger.**
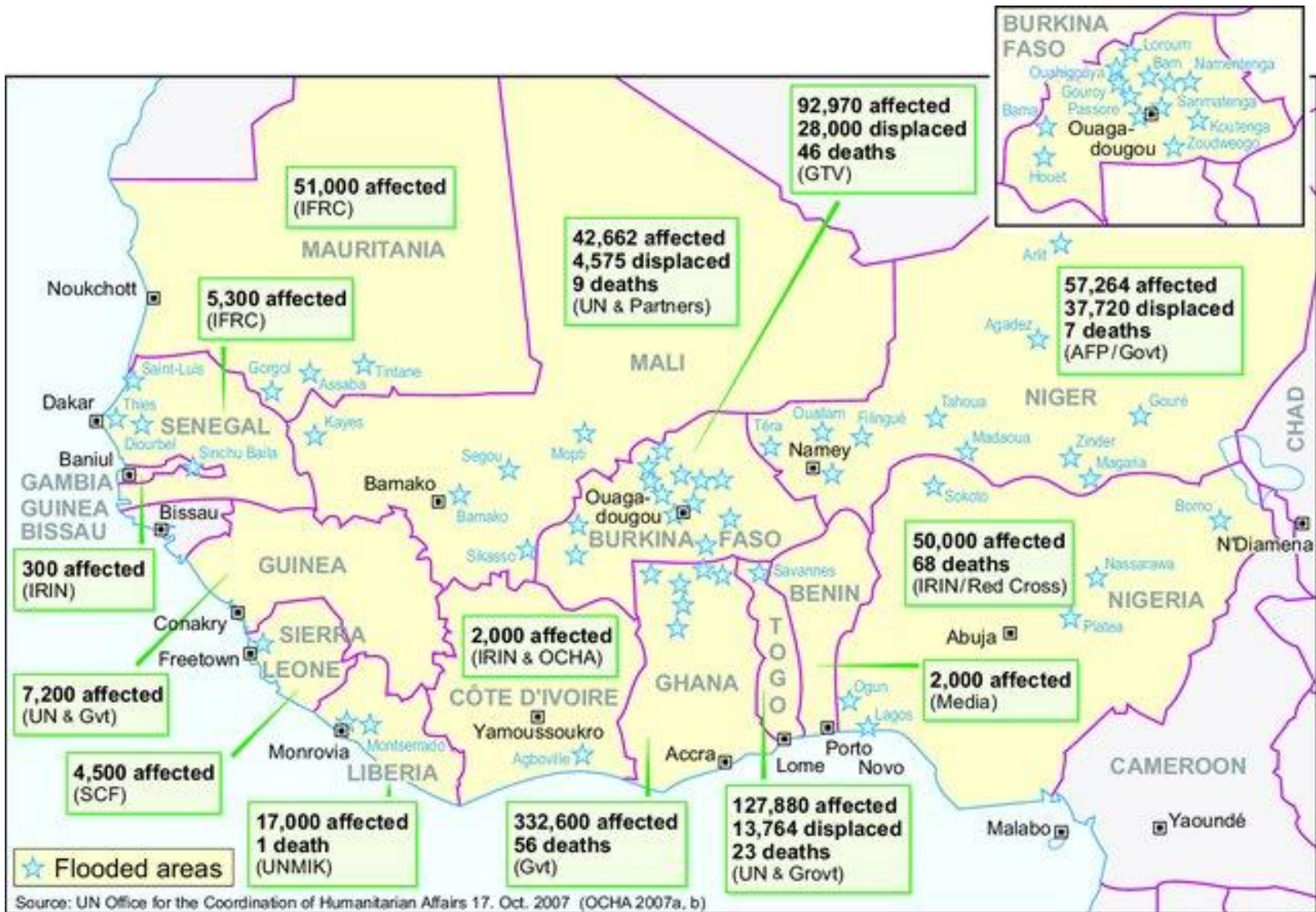
Example of flood occurring areas in West-Africa

Source: UN Office for the Coordination of Humanitarian Affairs 17. Oct. 2007 (OCHA 2007a, b)

In Niamey (Niger): more and more floods in the last decade… 2008, 2012, 2016, 2017, 2018, 2019, 2020,

Legend:
- Courbe enveloppe Mini-Maxi
- Débits 2012 (année humide)
- Débits 2019
- Débits 2020
- Normale Hydrologique (1981-2010)
- Alerte Rouge (620 cm)
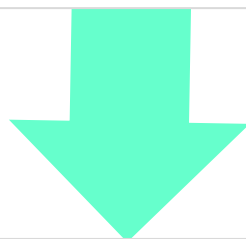- Alerte Orange (580 cm)
- Alerte Jaune (530 cm)
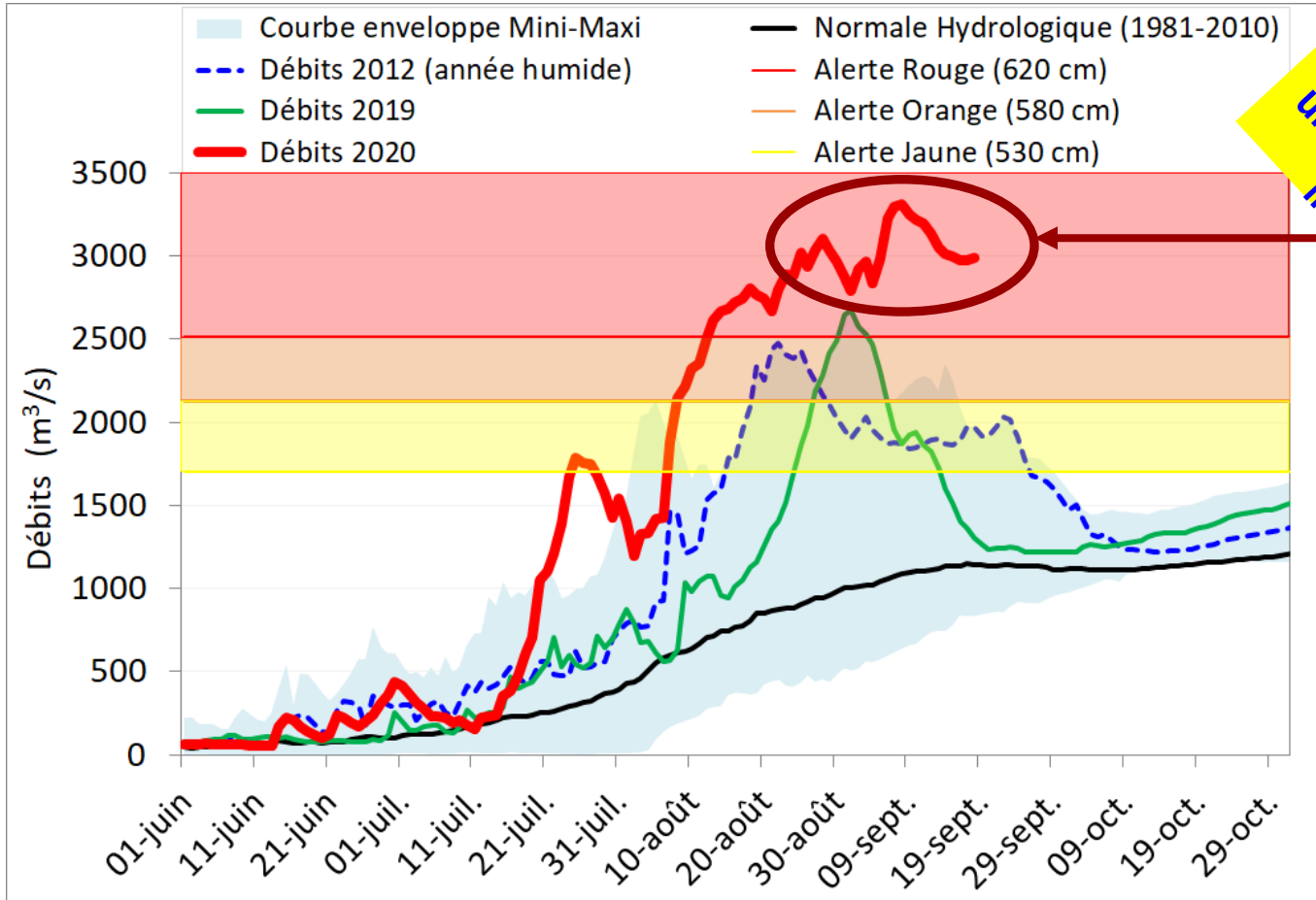
unprecedented in 2020

The current response in the region

Risks / Consequences

Inventory of consequences /Analyse

Response

Each year, the same scenario

We need a Paradigm shift, from crisis management to risk management

Flood prevention in WADiRE
Focus on early warning and risk mapping

- The main gap in the West-Africa: inadequate operational capacities to forecast floods and make early warning;

- UNESCO-AGRHYMET-ICHARM in collaboration Niger river Basin Authority and Volta river Basin Authority developed (2019 – 2021) the project "Water Disaster Platform to Enhance Climate Resilience in Africa" called WADiRE-Africa, with the financial support of the Government of Japan;

- This project put in place a flood forecasting and flood risk mapping platform based on the DIAS system;

- Intense capacities Building both for Regional organization and NHS and DRR agencies,

DIAS platform

Focus on capacity building as the basis of the resilience in Sahel and West-Africa

- Visit in Japan (ICHARM) of two regional scientists (AGRHYMET and VBA) to lean from the DIAS platform, model calibration, contingency plan development;

- Despite the COVID-19 situation online training technology made possible the implementation of the flowing training sessions;

- Four Training of Experts (ToE) sessions were organized in 2020, with a total of 288 participants trained, including 28 women from 11 VBA and NBA countries (Benin, Burkina Faso, Cameroon, Chad, Cote d'Ivoire, Ghana, Guinea, Mali, Niger, Nigeria and Togo)

- Two Training of Trainers (ToT) sessions organized in 2021 with 44 (9 women) persons trained as trainers.

Focus on capacity building as the basis of the resilience in Sahel and West-Africa

Participants to one of the online training sessions

WADiRE capacity building strategy

- From the institutional point of view: strengthen collaboration between countries and between organizations of the basins of the sub-region under the lead of the AGRHYMET Regional Center in terms of technology appropriation

- Choice of participants for the ToE (profile and background, role, commitment)

- Choice of participants for the ToT (ToE evaluation test, competence)

- Evaluation of training by participants in order to improve the defects observed (questionnaires)

Achievements and next steps

- Important capacity was built in region on flood forecasting, flood mapping and contingency plan development;

- There is a need to maintain the capacity building efforts in the region to face the growing flood threat in the region, recognizing putting in a place a flood a system is long process

- A FEWS platform is built and adapted to the West-African region; and e-learning material

- It's a pilot project, continuous efforts are needed on the ground-based collection to improve the system, because this was a limitation during the project implementation;

- WADIiRE system database

- An integrated multi-system platform is under development at AGRHYMET to integrate different systems including WADiRE;

- Create a network of national trainers to update their knowledge

Thank you for your Attention !!!