



NILE BASIN INITIATIVE
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Application of Operational Flash Flood Early Warning in Nile basin countries

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Introduction

- Flood Events in the Nile Basin Countries



Tanzania – Due to heavy rains in April 2022

Our Response

NBI (NELSAP-CU) is implementing the Nile Cooperation for Climate Resilience (NCCR) Project.

- Five years : 2021 to 2025.
- Financed by CIWA and co implemented by 2 other agencies
- NCCR is organized under Five Thematic areas
- Thematic area 2: Flood and drought risk mitigation
- Objective of the Thematic area is to enhance preparedness and resilience of Nile Basin Countries against flood and drought disasters
 - Through decision support services

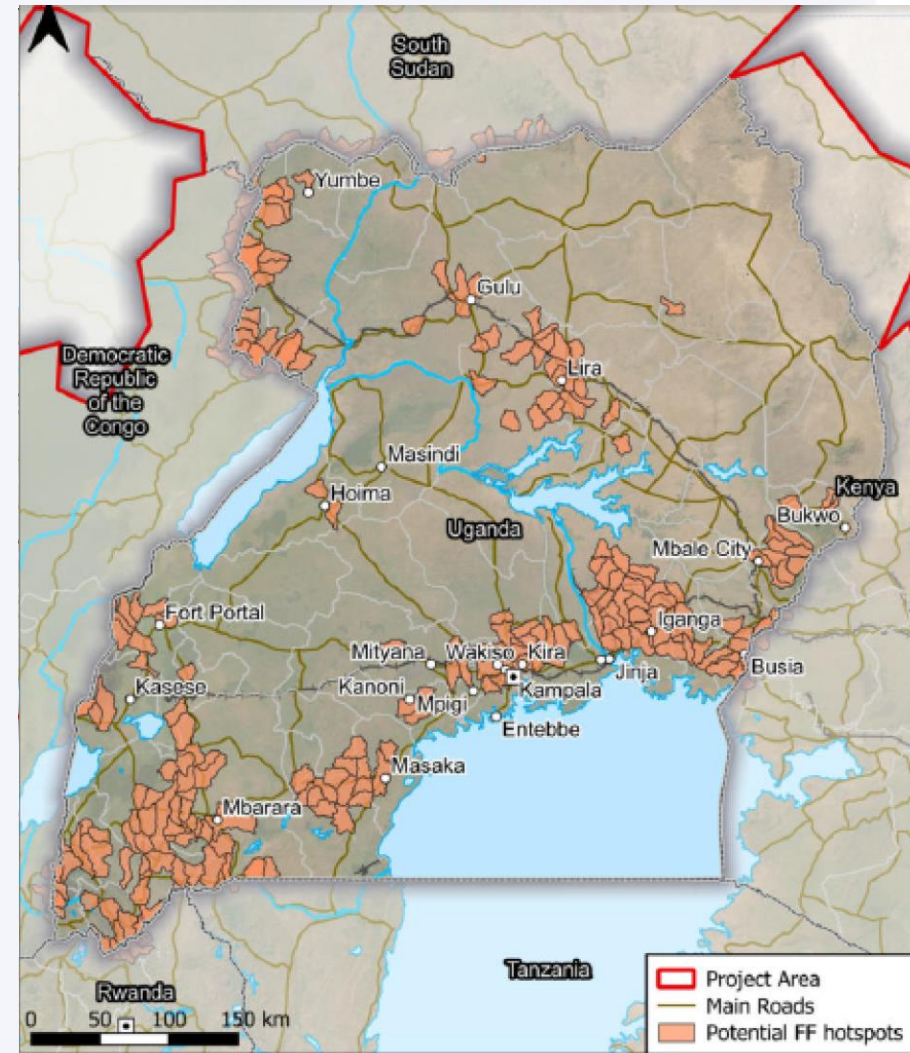
FFEWS for Nile Basin Countries



- The NBI (NELSAP-CU) is developing a:
 - **Nile Basin Flash Flood Early Warning System (FFEWS)**
- The aim is to support national meteorological and hydrological services in the Nile Basin member states in obtaining **reliable** and **effective** flash flood **early warnings** for flash flood prone areas.
 - To prevent loss of lives and property
- The FFEWS will forecast flash floods at selected hotspots

FFEWS for Nile Basin Countries

- Flash flood hot spots were identified through;
 - Country Consultations
 - Field visits- interaction with flood affected communities
 - Flash Flood Indicators (Flash Flood Potential Index and Dynamic Flash Flood Potential Index) in a spatial environment



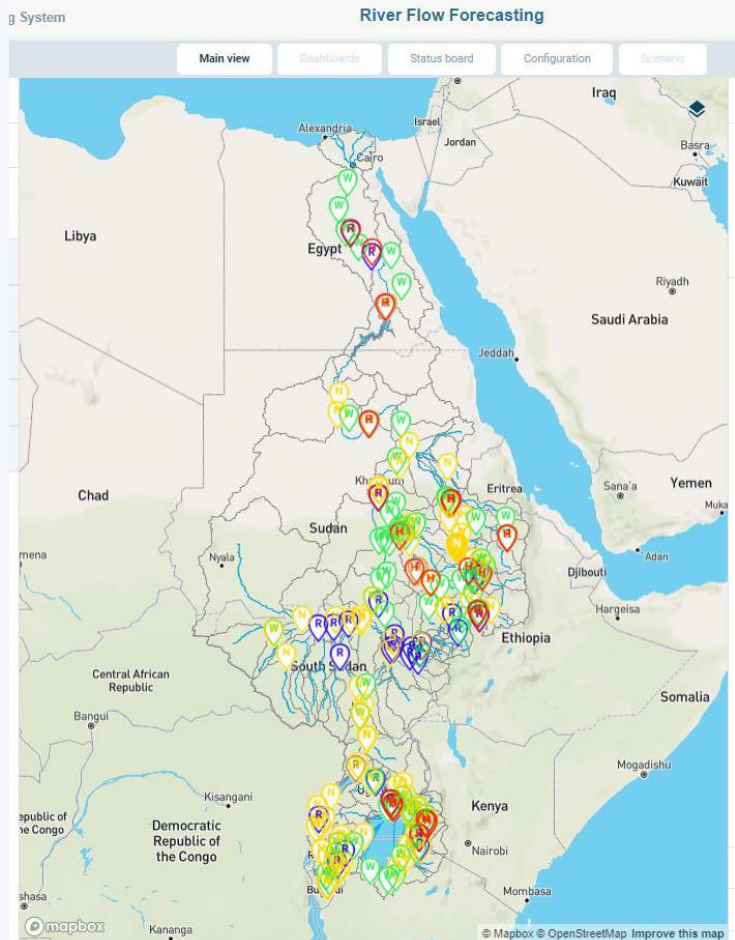
Findings



- All the countries are at different levels in prediction and provision of flood early warning alerts
- Lack of comprehensive early warning systems that can provide timely information about potential flash flood events.
- Countries rely predominantly on national weather predictions.
- Dissemination of Early Warning information is limited and in most cases does not reach vulnerable communities



FFEWS

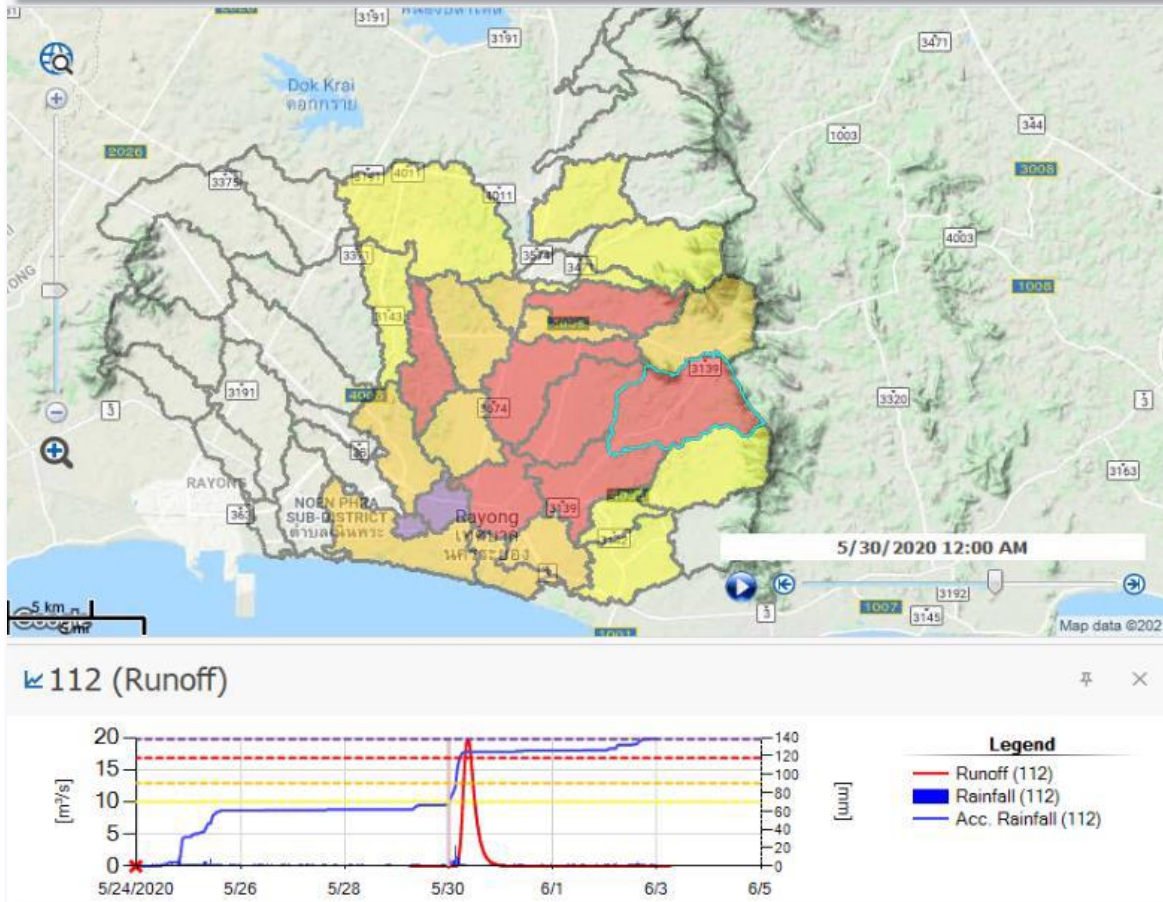


The Flash Flood Early Warning System (FFEWS)

- Developed by DHI
- A web based system, accessed through the NBI Integrated Knowledge Portal
- Similar interface as River Flow Forecasting System
- Flash flood early warning information for selected hot spots
- Displayed as of maps and charts
- EW information to be disseminated via e-mail, to selected stakeholders

At National level through existing dissemination mechanisms

FFEWS



- Flash flood occur in a small geographic extent and in a short lag time
- The catchment areas are small enough to adequately reflect flash flood characteristics
- Level 12 of WWF HydroSHEDS
- Catchments will be colored according to a certain alert level

Opportunities and challenges



- NELSAP-CU will enhance the capacities of the country technical experts to use the FFEWS.
- NELSAP-CU is in the process of identifying suitable investment options to mitigate floods for the identified flash flood hot spots.

Challenges

- There is a gap between technical experts and flood affected communities which hinders dissemination of flash flood early warning information to affected communities
 - National dissemination systems in place are sometimes too slow, bureaucratic and many times inadequate for EW
 - Working in silos by implementing agencies

A call to Action

- Countries to continue to explore transboundary solutions to impacts of climate change through **supporting joint analysis, planning and implementation of climate resilient interventions** to address climate risks and uncertainty.
- Improve **preparedness** of vulnerable **communities** by creating **awareness** about early warning systems and alerts.
- There is need to **bridge the gap between science and the communities**. It is our responsibility to disseminate EW information to vulnerable communities and this calls for an integrated approach that includes a wide range of stakeholders.



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**THANK
YOU!**