

## REGIONAL CLIMATE RESILIENCE PROGRAM (RCRP) FOR EAST AND SOUTHERN AFRICA

### Building Resilience to Flood Risk in the BAS Sub-Basin Select Areas!

#### Module 1 - Flood Hazard Mapping Training

The Eastern Nile Technical Regional office (ENTRO) successfully conducted *Module 1: Flood Hazard Mapping Training* under the “On-the-Job Training” series, focusing on developing the capacity in the Flood Risk Mapping for selected areas within the Baro-Akobo-Sobat (BAS) Sub-Basin.

The latest session took place in Addis Ababa, Ethiopia, bringing together around 8 experts from the Ministry of Water and Energy of the Federal Democratic Republic of Ethiopia. A similar training was delivered earlier on December 4<sup>th</sup>, 2025, for technical experts from the Ministry of Water Resources and Irrigation of the Republic of South Sudan.

This virtual training module equips participants with practical knowledge in flood hazard mapping and analysis, by introducing the models and datasets used in developing flood risk maps for selecting flood prone areas in the BAS Sub-Basin. The work completed so far includes:

- **8 models** covering **12 flood-prone areas**
- **1D and 2D flood models**
- **8 return periods** analyzed
- **3 result types** generated
- **192 flood hazard maps** (FEXT, WD, WVWL)
- **Extended 2D models** for improved accuracy
- **625 km river corridor** analyzed along Baro–Sobat, with **317 km** covered using 2D models
- **15 months** of analytical and modeling work

---

#### Project Background

The flood risk mapping initiative aims to **enhance preparedness and resilience** against flood disasters in the BAS sub-basin of Ethiopia and South Sudan by strengthening flood risk mitigation and response capacities.

#### Project Objectives

- Develop detailed flood inundation maps that illustrate **hazard, exposure, and vulnerability** across selected flood-prone areas
- Strengthen **flood preparedness and response** in the Eastern Nile (EN) region, with a special focus on the BAS sub-basin