Concept Note

Project Steering Committee Meeting

CREWS Central Africa and Flash Flood Guidance System

and

Workshop to launch the implementation of FANFAR in Central Africa

Monitoring, hydrological forecasting and flood risk assessment system

Online, May 13, 2025

(07h – 11h UTC)

(Automatic translation without correction)

Context

Hydro-climatic risks require sound management based on effective warning systems and anticipatory actions. These systems must be based on meteorological and hydrological forecasts representative of the dynamics specific to each type of event, warnings disseminated in a timely manner, as well as on institutional frameworks that promote efficient collaboration between all the actors involved in risk management. These elements were clearly highlighted in the conclusions of the first meeting of the steering committee of the CREWS Central Africa project, held in Kigali in June 2024 (cf. report).

Among the hydro-climatic risks, floods represent an increasingly important challenge in Africa now occurring almost every year. In 2024, they affected more than 4.4 million people in West and Central Africa, causing significant damage in Chad (1.5 million), Nigeria (1.1 million), Niger (7 million) and Cameroon (0.36 million). 2024). More recently, the Democratic Republic of Congo suffered the consequences of floods that wreaked havoc on the population in April 2025.

Numerous studies confirm an intensification of extreme weather events, which are likely to cause major floods. It is therefore crucial that Central Africa equip itself with flood monitoring and prevention tools, useful information for risk preparedness, response and management, as well as effective means of water resources management.

The FANFAR system, operational since 2018 in West Africa, simulates the response of rivers in 17 countries in West Africa and the Sahel. It assesses flood risks on the basis of weather forecasts and hydrological observations. FANFAR provides countries with a tool and products to analyse river behaviour and forecast floods.

The FANFAR system, operational since 2018 in West Africa, simulates the hydrological response of rivers in 17 countries in West Africa and the Sahel. It assesses flood risks based on weather forecasts and hydrological observation data. FANFAR provides countries with tools and products to analyse river behaviour and forecast floods.

The extension and adaptation of FANFAR in Central Africa, carried out by AGRHYMET and SMHI, will strengthen operational capacities for monitoring, forecasting and warning of river floods in the region (Angola, Burundi, Chad, Equatorial Guinea, Gabon, Cameroon, Central African Republic, Democratic Republic of Congo, Republic of Congo, Rwanda and Sao Tome and Principe). The FANFAR implementation plan will include phases of technical development as well as training sessions. This plan will be detailed during this inception workshop, which will be preceded by the second meeting

of the Steering Committee. The Steering Committee meeting will provide a comprehensive update on the status of the CREWS Central Africa project.

Expected objectives and deliverables

Session 1. Steering Committee

The purpose of this session is to inform the members of the steering committee on the progress of the regional components of the CREWS Central Africa project as well as the Flash Flood Guidance System initiative, the challenges addressed and the actions proposed to address them. This session will make it possible to collect guidelines from committee members to frame the implementation, and define measures contributing to the sustainability of the actions.

Deliverables *: Report of the 2nd Steering Committee.*

Session 2. FANFAR Implementation

The objective of this kick-off workshop is to present the plan of activities, the provisional schedule as well as the methodology adopted for the development and implementation of the FANFAR system in Central African countries. This plan includes the identification of the needs of FANFAR's direct users, the collection of meteorological and hydrological data, and training on hydrological modelling, as main activities.

A dedicated session on lessons learned from the FANFAR experience in West Africa will allow participants to have a concrete overview on the operational use of the system, its performance and the production of flood forecasts.

Deliverables *: Workshop report summarizing the discussions, recommendations and decisions taken.*

Workshop schedule

The workshop will be held online and will be coordinated by WMO and UNDRR for Session 1, and then by the AGRHYMET Regional Centre and the Swedish Institute of Meteorology and Hydrology for Session 2.
The approach adopted will highlight the importance of inter-institutional collaboration in; the implementation of the components of the project t in the response to the identified challenges. The workshop will present the proposed steps for the establishment of a regional hydrological forecasting

and early warning system on flood risks and will consult participants on possible synergies with existing systems at the national level.

Workshop participants

The participants are:

- members of the CREWS Central Africa and FFGS Steering Committee (directors and representatives of NMHSs, and Disaster Risk Reduction);

- meteorological and hydrologist technicians and engineers involved in (agro)meteorological and hydrological monitoring and forecasting at the national level;

- experts in disaster risk management, mainly flood risks, mainly agents involved in decision-making, warnings and communication;

Agenda

The agenda of the workshop is presented as follows:

Session 1: Steering Committee Meeting		
09:00 - 10:00	Progress of CREWS Central Africa (regional component) • Extreme Weather Prediction (SWFP); • Agrometeorological monitoring and forecasting; • Hydrological and flood monitoring and forecasting (FANFAR, FFGS) • Situational room Recommendations and next steps	Representatives CP. WMO, UNDRR
10:00 - 10:15	Break	All
Session 2: Implementation of FANFAR in Central Africa		
10:15 - 11:00	**Methodology and steps to follow** • Business Plan and Methods • Training plan • Next steps (consultations, data collection, training)	AGRHYMET, SMHI
11:00 - 12:00	**Lessons Learned from FANFAR in West Africa** • Overview of the FANFAR experience • Operational experience in flood forecasting and warning (Burkina Faso and Togo) • Regional cooperation, challenges and lessons learned	AGRHYMET, SMHI, SMHN and Civil Protection of Burkina Faso and Togo