

# **Request for Proposals: Contribution to the Modernization of Burkina Faso's Water Resource Monitoring Networks for the Implementation of the Flood Early Warning System (SAPCI)**

April 2024

## **ABOUT THE NDC PARTNERSHIP**

The NDC Partnership is a global coalition of countries and institutions working to mobilize support and achieve ambitious climate goals while enhancing sustainable development. Through the Partnership, country members leverage their resources and expertise to provide countries with the tools they need to implement their NDCs and combat climate change to build a better future. Hosted by WRI, the UNFCCC Secretariat, and the UN Office for Project Services, the NDC Partnership has members in all regions of the world, with staff in Washington DC and Bonn, Germany.

The NDC Partnership has engaged with Burkina Faso to prioritize projects in the water sector leading to advancing implementation of its Nationally Determined Contribution (NDC) and its National Adaptation Plan (PNA). Working with the Partnership focal point at the National Permanent Secretariat for Sustainable Development (SNPDD) to liaise and consult with the concerned national institutions, the Partnership issues this Request for Proposal in response to the priority project "Contribution to the modernization of water resource monitoring networks for the implementation of the flood early warning system (SAPCI) as a complement to the HYDROMET project and the water supply and sanitation program (PAEA)".

## **BACKGROUND**

Burkina Faso, located in a climatic zone characterized by a marked rainy season, faces increased risks of flooding, particularly around its numerous water reservoirs and in urban centers. These events, increasingly frequent and intense due to climate change, directly threaten the security of people and property, as well as the economic and social development of surrounding communities. The need to prevent and minimize the impacts of these floods has therefore become a strategic priority for the government.

The Flood Early Warning System being implemented by the HYDROMET Project and the PAEA program supports strategic structures and the urban centers of Ouagadougou and Bobo-Dioulasso. However, important localities and regional roads are not included.

This project will make it possible to benefit from additional support for the establishment of the SAPCI by expanding its area of influence.

The early warning system includes hydrometeorological monitoring stations, an effective communications network for the rapid dissemination of alerts, as well as training and awareness programs for local communities on flood preparedness and response measures. The involvement of local communities in the implementation and maintenance of the system is essential for its success and sustainability. The funding will make it possible to strengthen our monitoring network through the acquisition of hydrometeorological monitoring stations.

Out of 141 automatic stations planned, 14 have been installed and 73 are being acquired by the State (through the General Directorate of Water Resources, DGRE) and its various partners, however 54 stations gap needs financing. This gap of automatic remote transmission stations is reduced by this contribution to 46, reflecting additional efforts in terms of contribution to the monitoring of water resources.

This early warning system should significantly reduce the vulnerability of populations to flooding, reduce loss of life and material damage and strengthen the resilience of communities in the face of natural disasters.

## SCOPE OF WORK

The main objective of this support is to contribute to the development and implementation of the Flood Early Warning System in Burkina Faso (SAPCI) to anticipate flood risks through hydrological and meteorological monitoring. This constitutes an important tool for decision making and planning in the hands of strategic actors, technical teams, local authorities and communities to take preventive measures to safeguard lives and livelihoods. The project should help:

- collect all the necessary additional data (biophysical and socio-economic) for the expanded development of the Cures/Floods Early Warning System.
- characterize the risks on each additional site as well as the associated impacts and define the alert thresholds.
- propose a water resources allocation model based on water supply and demand taking into account major issues.
- Propose community hydrological stations.
- propose a plan to strengthen the necessary capacities for stakeholders in the concerned areas.

## KEY DELIVERABLES

The main deliverables are:

- **Feasibility Study and Risk Assessment Report**
  - Analysis of risk areas, previous incidents and specific vulnerabilities.
  - Identification of needs and existing capacities for flood monitoring, communication and response.
- **Technical Design of the Integrator System at SAPCI**

- Detailed plans of the alert system, including hydrometeorological monitoring components, communications infrastructure, and alert dissemination platforms.
- Technical specifications for the acquisition of equipment and software.
- **Operations Protocol and Procedures Manual**
  - Development of protocols for data collection, analysis and dissemination.
  - Definition of alert procedures, including activation thresholds and communication chains.
- **Training and Awareness Plan**
  - Training materials for system operators and first responders.
  - Awareness programs for at-risk communities, including information on flood preparedness and what to do in the event of a warning.
- **Integration of the SPACI Software and the Digital Platform**
  - Development or adaptation of software for data management, risk modeling and dissemination of alerts.
  - Implementation of a user interface for operators and potentially for the general public.
- **Installation of Surveillance and Communication Infrastructures in Identified Sites**
  - Installation of hydrological and meteorological monitoring stations.
  - Establishment of the communication systems necessary for the rapid and effective dissemination of alerts.
- **System Testing and Validation**
  - Testing procedures to validate the technical operation of the system, the accuracy of the data collected, and the effectiveness of alert protocols.
  - Incident simulations to test the responsiveness of communities and responders.
- **Implementation Reports and Documentation**
  - Complete technical system documentation, including operation and maintenance manuals.
  - Implementation reports detailing project phases, challenges encountered and solutions adopted.
- **Maintenance and Update plan**
  - Developing a plan for regular system maintenance and updating equipment and software.
  - Strategy for updating operating and training protocols according to evolving technologies and needs.
- **Impact Assessment and Final Report**
  - Analysis of the system's impact on risk reduction and community preparedness.
  - Final report presenting findings, lessons learned and recommendations for future initiatives.

## PROJECT MANAGEMENT

This assignment will be managed closely by the Ministry of Environment, Water and Sanitation. For policy alignment across sectors, additional departments in the Government of Burkina Faso will likewise be engaged throughout this assignment:

Department	Structure	Representative	Number
Ministry of Environment, Water and Sanitation (MEEA)	General secretariat of the MEEA	Secretary General or their technical representative	01
	General Direction of Water Resources (DGRE)	General Manager	01
		Director of Studies and Information on Water (DEIE)	01
		Hydrology Service (SH)	02
		Department of Information, Promotion of Studies and Research on Water (SIPEau)	02
		Monitoring, Evaluation and Planning Service (SPSE)	01
		Financial service (FS)	01
Ministry of Transport, Urban Mobility and Road Safety (MTMUSR)	National Meteorology Agency (ANAM)		01
Ministry of Urbanism, Land Affairs and Housing (MUAFH)			01
Ministry of Territorial Administration, Decentralization and Security (MATDS)	General Directorate of Civil Protection (DGPC)		01
Ministry of Infrastructure and Inclusion (MID)			01
Ministry of solidarity, humanitarian action, national reconciliation, gender and family (MSAHSNGF)	National Emergency Relief Council (CONASUR)		01
Non-Governmental Organizations	Burkina Faso Red Cross		01
NDC Partnership Representative			01

## TEAM OF EXPERTS REQUIRED

To carry out this project successfully, following team of experts will conduct fieldwork, workshops and other activities:

1. Hydrologist with proven expertise in the monitoring and evaluation of water resources. With strong skills in hydrometeorological forecasting tools, management of hydrometric stations and knowledge of the study area. The Hydrologist expert will be the team leader.
2. IWRM expert should master various aspects related to data necessary for IWRM, in particular data on water resources, meteorological and climatic resources, land resources, socio-economic data, including those on actors involved in the field of IWRM. Field experience in the implementation of IWRM and a good knowledge of the study areas are required. The IWRM data expert will be the linchpin of the team in the data collection phase.
3. IT expert with expertise in database and platform development for both the design and development of database management systems, but also experience in the design and development of digital communication and online data management platforms. The expert will be in charge of setting up the community database per selected site as well as developing the community platform, including a site-specific communication portal in relation to the SAPCI.
4. Expert in Water uses and users with expertise in understanding the different needs for the use of water resources, but also risks associated with these resources. Should detain necessary experience in identifying different water users, their structuring and their organization.
5. The geographic information system (GIS) expert with proven experience in multi-indicator mapping with modern mapping tools. Skills in Web-mapping are an asset.

No	Expert	Number	Qualifications	Experience
1	Hydrologist Expert	1	Master degree in hydrology or hydrometeorology (hydraulician)	10 years in the field of hydrology 3 years in the field of monitoring and knowledge of water resources.
2	IWRM Expert	1	Master degree in hydrology, hydraulics, environment	5 years in IWRM
3	IT expert	1	Bachelor's or Master's degree in computer science	5 years in database design
4	Expert in uses and users	1	Master degree in socioeconomics or other related field	5 years in IWRM
5	GIS expert	1	Master degree in GIS or other similar qualification	5 years in GIS

Proficiency in French is required for the entire project team.

A representative of the General Directorate of Water Resources (DGRE) will be associated to at all stages of the assignment in order to promote ownership of the system.

## CONTRACT DURATION

- Estimated start date: August, 2024
- Estimated end date: July, 2025

The detailed planning will be completed in consultation with the government.

## RFP PROPOSAL REQUIREMENTS

Prospective vendors should submit:

- Description of proposed project management structure (lead team/project manager, sub-contracted organizations, local experts, etc.)
- CVs of team members.
- Examples of and references for similar previous work (with URLs and contact details)
- Proposed implementation approach/project monitoring plan
- A proposed budget with a breakdown of costs sufficient to assess reasonableness and compliance with our funder requirements.
- A proposed schedule for deliverables.

## EVALUATION AND SELECTION

### Evaluation Criteria

The following elements will be the primary considerations in evaluating all proposals submitted in response to this RFP

- Completion of all required elements.
- The extent to which the consultant's proposal fulfills WRI's stated requirements as set out in the RFP.
- Experience with similar projects.
- Overall cost of the consultant's proposal.
- Debarment and sanctions – WRI will not consider proposals from consultants, etc. that are presently debarred by the U.S. government or named on any restricted parties lists.

**The bidder offering the best overall value will be selected. For this procurement, price and non-price aspects are considered to be of approximately equal importance.**

### Selection Process

No proposal development costs shall be charged to WRI / all expenses are to be borne by the bidders. WRI may award to the bidder offering best value without discussion. However, WRI reserves the right to seek bidder clarifications and to negotiate with those bidders deemed to be within a competitive range.

WRI may, at its discretion and without explanation to the prospective consultants, choose to discontinue this RFP without obligation to such prospective consultants, or make multiple

awards under this RFP. Contracts will not be awarded to consultants, debarred by the US government or named on restricted parties lists.

## **SUBMITTING PROPOSALS**

Please submit all proposals and relevant materials by **c.o.b., Wednesday, 8 May 2024** in electronic format to:

- Imane Chafiq, Country Engagement Specialist, [imane.chafiq@ndcpartnership.org](mailto:imane.chafiq@ndcpartnership.org)
- Roman Dehsabzi, Project Coordinator for Country Engagement Support, NDC Partnership Support Unit: [Roman.dehsabzi@ndcpartnership.org](mailto:Roman.dehsabzi@ndcpartnership.org)

WRI may, at its discretion and without explanation to the prospective vendors choose to discontinue this RFP without obligation to such prospective vendors or make multiple awards under this RFP.