

Terms of Reference (ToR) for the Hydrogeological Survey, Borehole Drilling, and Installation of a Solar-Powered Water Pump and Elevated Storage Tank in Tintilou Village, Komki-Ipala Rural Community, Tangsèèga District

1.0 General Information

Intervention: Enhancing environmental restoration and conflict transformation in Burkina

Faso, Mali, and Senegal through the empowerment of religious leaders to advocate for gender equality and women's empowerment in line with the

Sustainable Development Goals (SDGs).

Project Title: Women Empowerment and Environment Restoration for Conflict Prevention in

the Sahel

Duration: 3 Months

2.0 Background and Context

2.1 About the Task

The African Council of Religious Leaders- *Religions for Peace* is seeking for a competent company to provide the services of *hydrogeological survey, Borehole Drilling and installation of solar-powered water pump and an elevated storage Tank in Tintilou village, Komki-Ipala rural community, Tangseega District, Burkina Faso.*

2.2 Introduction

The <u>African Council of Religious Leaders- Religions for Peace</u> (ACRL-RfP) is the largest and most representative multi-religious platform in Africa. Our mandate is to generate interfaith space and establish platforms and networks for religious leaders and their communities to deliver common action in the promotion of harmony and the sustainable progress for Africa.

ACRL-RfP through the Women Empowerment and Environmental Restoration for Conflict Prevention in the Sahel initiative, supported by <u>Brot für die Welt</u> (BftW), is advancing locally grounded environmental restoration initiatives that directly address climate vulnerability and resource-based conflict. One of the project's key interventions is focused on the provision of sustainable water access to enable irrigated agriculture and ecological restoration to improve climate resilience for Burkina Faso, Mali and Senegal.

The initiative recognizes that access to water is central to resilience in the Sahel. By establishing a solar-powered borehole system, ACRL-*RfP* seeks not only to provide clean water for domestic use but also to enable small-scale irrigation to sustain year-round agricultural production. This approach links environmental restoration with improved livelihoods, promoting food security and social stability, particularly for women and youth. Through collaboration with local congregational leaders, the initiative aims to foster community ownership and ensure that restored ecosystems translate into tangible social and economic benefits.

2.3 Background

As worsening drought and land degradation continue to affect large parts of Burkina Faso's Centre Region, access to safe drinking water remains a serious challenge, particularly in rural communities like Komki-Ipala. Located about 50 kilometers from Ouagadougou, the area faces growing water scarcity driven by erratic rainfall and high dependence on seasonal surface water sources. The situation has contributed to poor sanitation, declining agricultural productivity, and increasing vulnerability among women, children, and the elderly who often travel long distances to fetch water for domestic and livestock use.

In the village of Tintilou, within Komki-Ipala, the demand for sustainable water access is acute. Despite its fertile lowlands and existing simplified drinking water system (AEPS), the infrastructure is inadequate to meet the needs of a rapidly growing population. Agriculture and livestock remain the backbone of the local economy, yet both are threatened by climate variability and diminishing natural resources. This has heightened the urgency for interventions that combine water access, environmental restoration, and livelihood support to build resilience.

It is for this reason that the ACRL-RfP, seeks to improve access to water through the development of a solar-powered borehole in Tintilou. The project aims to promote irrigated agriculture, enhance food security, empower women economically, and strengthen community resilience against the impacts of climate change in the Sahel region.

3.0 Objectives of the Service and Scope of Work

The contracted firm will be responsible for conducting a hydrogeological survey to determine the most suitable groundwater abstraction point, followed by the drilling, development, and equipping of one solar-powered borehole within Komki-Ipala Commune, Burkina Faso.

This assignment will be implemented in two sequential and interdependent phases, designed to ensure technical accuracy, cost efficiency, and accountability throughout implementation.

- Phase I: Hydrogeological Survey to identify the most viable drilling site and determine aquifer characteristics, including expected depth, yield, and water quality.
- Phase II: Borehole Drilling, Construction, and Equipping to be executed only after the approval of the hydrogeological survey report and upon confirmation of a viable water source.

3.1 Contract Structure

The contract will be established as a conditional two-phase agreement ("contract with contingent Phase II").

Implementation of Phase II will be contingent upon:

- Successful completion and approval of the Phase I Hydrogeological Survey Report by ACRL-RfP and relevant local authorities;
- Confirmation that groundwater yield and quality are suitable for domestic and agricultural use; and
- Availability of project funds and written authorization from ACRL-RfP to proceed.

3.2 Bidding and Quotation Approach

Bidders are required to submit proposals covering both phases as follows:

- a. A firm technical and financial proposal for Phase I (Hydrogeological Survey); and
- b. A provisional technical and financial quotation for Phase II (Drilling and Equipping), based on standard regional drilling parameters and comparable data from previous works. The provisional quotation for drilling will serve as an indicative budget ceiling. It will be reviewed and adjusted after the hydrogeological survey confirms the actual drilling depth, casing specifications, and pumping requirements.

3.3 Technical Parameters and Assumptions

Based on existing hydrogeological data from the Centre Region of Burkina Faso (Komki-Ipala Commune), boreholes typically range between 110 and 140 meters in depth, with average yields of 4 to 6 m³/hour. Bidders are therefore requested to base their provisional quotations on a borehole depth of approximately 130 meters, inclusive of supply and installation of standard steel casings, gravel packing, test pumping, solar equipping, and water collection infrastructure as outlined below.

3.4 Scope of Work

Phase I: Hydrogeological Survey

The selected firm will:

- a. Conduct a detailed desk and field hydrogeological investigation to assess groundwater potential and quality
- b. Identify, mark, and geo-reference the optimal drilling site, considering geological, topographical, and community factors
- c. Prepare and submit a comprehensive Hydrogeological Survey Report, including maps, geophysical data interpretation, and recommendations on drilling depth, yield, and aquifer characteristics
- d. Provide an itemized cost estimate for the drilling and equipping phase, based on survey findings.

Phase II: Borehole Drilling, Construction, and Equipping

(To be undertaken upon approval of survey findings and written authorization from ACRL-RfP) The selected firm will:

- a. Mobilize all required equipment, materials, and qualified personnel to the site
- b. Drill one borehole (approximately **130 meters deep**, or as determined by the approved hydrogeological report)
- c. Supply and install standard steel casings and well screens, with proper gravel packing and sanitary sealing
- d. Conduct borehole development and test pumping (step drawdown and constant rate) to determine sustainable yield and recovery rate
- e. Undertake comprehensive water quality testing (chemical and bacteriological) at a certified laboratory and submit validated results
- f. Supply, install, and commission a solar-powered submersible pump with associated

- piping and distribution system
- g. Construct a secure wellhead, reinforced concrete apron, and water collection point suitable for both domestic and small-scale irrigation use
- h. Demobilize all equipment, clean up the site, and ensure full restoration upon completion of works.

4.0 Results

- a. Hydrogeological Survey Report detailing groundwater characteristics, site suitability, recommended drilling depth, and water quality analysis.
- b. End-of-Drilling Phase Report, including the updated borehole design, construction details, and photographic documentation.
- c. Certified Borehole Completion Report, incorporating borehole logs, test pumping results, and declaration of safe yield.
- d. Water Quality Test Report (chemical and bacteriological), validated by a certified laboratory.
- e. Training Report on operation and maintenance of solar pumping systems, delivered to a designated *Community Water Management Committee* established in collaboration with local leadership and ACRL-RfP.

5.0 Indicative Schedule of Activities

The prospective contractor shall submit a comprehensive work plan and timeline of not more than 3 months, covering both Phase I (Hydrogeological Survey) and Phase II (Drilling and Equipping).

The work plan shall include:

- Mobilization of personnel, equipment, and materials to the site
- Execution of hydrogeological investigations and site selection
- Drilling operations, test pumping, and water quality testing
- Installation of solar pumping equipment, elevated tank, and water collection points
- On-site training of the community management committee
- Site restoration, demobilization, and submission of completion documentation.

The final schedule will be reviewed and approved by the **Program Manager-Environment**.

6.0 Qualifications, Experience and Skills

The selected firm shall demonstrate technical and professional capacity to execute the assignment. Minimum requirements include:

Project Manager / Drilling Engineer

- A degree in Civil, Water, or Geological Engineering, or a related field
- At least 10 years of professional experience in borehole drilling, construction, and groundwater management
- Proven experience supervising multi-sector water supply projects, preferably within the Sahel region
- Registration with a recognized national engineering or water authorities' body.

Site Foreman / Technical Supervisor

- A minimum of a Diploma in Civil or Water Engineering or related technical qualification
- At least 5 years of practical experience in borehole operations, including drilling supervision

and quality control

• Registration or certification by a relevant professional or technical institution.

The firm should also demonstrate access to competent support staff, including a hydrogeologist, solar technician, and quality assurance officer.

NB:

The contracted firm shall be fully responsible for the recruitment, supervision, and remuneration of its personnel, including all wages, allowances, insurance, and statutory benefits as required by national labor laws.

The firm shall ensure that all staff deployed on site are adequately trained, medically fit, and equipped with the necessary personal protective equipment to guarantee health, safety, and environmental compliance during the execution of works.

ACRL-RfP shall bear no responsibility for any claims, accidents, or disputes arising from the firm's staff, equipment, or subcontractors. The firm will be required to maintain valid workman's compensation and third-party liability insurance for the duration of the contract.

7.0 Application and Submission Requirements

Interested and qualified firms are invited to submit **technical and financial proposals** demonstrating their capacity to undertake the assignment in accordance with national standards for water works and borehole construction.

A. Administrative Requirements

- 1. Valid tax compliance certificate from the relevant national authority.
- 2. Current business license and/or professional registration in the water works or drilling category.
- 3. Proof of company ownership (Articles of Association or business registration summary).
- 4. Valid professional indemnity or public liability insurance.

B. Technical Requirements

- 1. Registration with the relevant national water or drilling authority.
- 2. Demonstrated experience in at least two similar borehole construction or water supply projects.
- 3. Curriculum Vitae (CVs) of key technical personnel (Hydrogeologist, Drilling Engineer, and Solar Technician).
- 4. Detailed technical methodology outlining key phases of work:
 - **Phase I:** Hydrogeological survey and siting.
 - **Phase II:** Borehole drilling, casing, test pumping, and water quality analysis, including, installation of solar-powered pumping system and construction of water collection points.
- 5. Work schedule and implementation timeline for all phases.
- 6. Itemized Bill of Quantities (BoQ)- including a firm quotation for Phase I (Hydrogeological Survey) and a provisional quotation for Phase II (Drilling and Equipping).

C. Construction Documentation (as applicable)

To enhance quality assurance, firms are encouraged to include:

- 1. Simple site layout and designs
- 2. Brief technical description of each component (hydrogeological survey, drilling, solar installation, and water distribution).

8.0 Safeguarding and Non-Discrimination

ACRL-RfP is committed to upholding the rights, safety, and dignity of all children and vulnerable adults in our work. This includes adherence to the ACRL-RfP Safeguarding and Protection from Sexual Exploitation, Abuse and Harassment (PSEAH) Policy, the UN Convention on the Rights of the Child, and the Inter-Agency Standing Committee (IASC) Six Core Principles on Sexual Exploitation and Abuse. ACRL-RfP enforces a strict zero-tolerance policy for any misconduct involving beneficiaries, staff, or representatives.

We promote a diverse and inclusive workplace and strongly encourage applications from qualified women and young professionals.

9.0 Submission of Proposals

Proposals must be submitted in English via email: secretariat@acrl-rfp.org with the subject line: "Hydrogeological Survey and Borehole Drilling - Komki-Ipala, Burkina Faso."

The deadline for submission is 15 November 2025

All clarifications must be requested in writing no later than five (5) working days before the submission deadline, through the same email address.

10.0 Evaluation and Award Criteria

Proposals will be evaluated based on the following criteria:

- Administrative compliance (mandatory documents submitted)
- Technical capacity (team qualifications, relevant experience, methodology, equipment, and past performance)
- Financial proposal (cost competitiveness, completeness, and value for money).

Important Notes:

- Please note that only shortlisted candidates will be contacted for the further review.
- Only shortlisted bidders will be contacted. ACRL-RfP reserves the right to accept or reject any proposal, in whole or in part, without obligation to award the contract or provide reasons for its decision.
- Due to the urgency to fill this post, we reserve the right to review the applications on a rolling basis and selected companies/candidates may be interviewed prior to the closing dates listed, therefore early applications are encouraged.
- For any inquiries, please contact Ms. Lydia Ndinda, via- secretariat@acrl-rfp.org/ lndinda@acrl-rfp.org/ WhatsApp- +254 719476754.

We appreciate your interest in this assignment and look forward to reviewing your application!

G15, Pavilion Court, Membley Estate, Off Northern Bypass | P.O. Box 42117 - 00100, Nairobi, Kenya Office Tel: +254 727 531 170 | +254 737 531 170 | Email: secretariat@acrl-rfp.org Website: www.acrl-rfp.org