



Federal Republic of Somalia
Ministry of Energy and Water Resources

Request for Proposal (RFP)

Consultancy Services

Country: **Federal Republic of Somalia**

Organization: **Ministry of Energy and Water Resources**

Name of the Project: **CREWS Project**

Assignment Title: **Consultancy Service to establish rating curve for Shabelle Hydrologic Stations in Beledweyne.**

Project Location: **Somalia**

Deadline: **14 August 2024**

Ref No: **MoEWR/GIZ/RFP/005/07/2024**

1. Purpose

The Ministry of Energy and Water Resources Federal Republic of Somalia has received financing from GIZ toward the Enhancement of capabilities in maintaining flood control structures and early warning systems along the Shebelle River basin through the establishment of rating curves for Shebelle Hydrologic Station in Beledweyne

The objective of this project is to enhance the capabilities of maintaining flood control structures and early warning systems along the Shebelle River basin through the establishment of rating curves for the Shebelle Hydrologic Station situated in Beledweyne.

The detailed Terms of Reference for the assignment can be found at the following website: <https://MoEWR.com/> or it can be provided upon submission of the application in person or by e-mail. The e-mail address is provided below.

The Ministry of Energy and Water Resources now invites eligible consulting firms to submit their technical and financial Proposal for providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc.).

1. Eligibility Criteria:

Interested firms should meet the following minimum eligibility criteria:

- Registered consultancy firm with experience in hydrological surveys and early warning systems.
- Tax Compliance Certification (TCC).
- Demonstrated experience in similar projects, preferably in river basin management and flood control.
- Availability of qualified experts in hydrology, engineering, and disaster management.
- Ability to work in a challenging environment with local communities and stakeholders.

2. Submission of Proposals

Interested consultancy firms are invited to submit their proposals by **14 August 2024** in hard copy or by email.

The proposals should include a detailed technical and financial proposal (one original and two copies), CVs of key experts, and relevant project references.

3. Contact Information

For further information and submission of proposals, please contact:

Mohamed Abdullahi Hassan
Head of Procurement
Ministry of Energy and Water Resources
Afgoye Road, KM5, Wadajir District Mogadishu, Somalia
Procurement@moewr.gov.so, Cc: dg@moewr.gov.so
+252618510906

Attached: Full Details of the Terms of Reference



Federal Republic of Somalia

**TERMS OF REFERENCE FOR CONSULTANCY SERVICES IN THE
ESTABLISHMENT OF RATING CURVES FOR THE SHEBELLE HYDROLOGIC
STATION SITUATED IN BELEDWEYNE**

Post title	Consultancy Services: for the establishment of rating curves for the Shebelle Hydrologic Station situated in Beledweyne
Organization unit	Ministry of energy and Water Resources
Estimated duration	Deliverables based contract over a period of 3 months
Travel Plans	To be agreed

I. Background

Following positive developments after the May 2022 election, the Government of Somalia is better positioned to coherently address the numerous challenges associated with widespread poverty and natural resource challenges. The Government has recently developed a National Hydromet Services Policy which directly supports implementation of the NDP-9 and the National Water Resources Strategy for Somalia and specifically links to support the establishment for NHMS and more productive Hydrological and meteorological information system. About 60% of Somalia is arid or semi-arid and the availability of water resources is uneven and irregular both in space and time. To assess the level of water availability, adequate hydrological, hydro-meteorological and other related data is needed. Sustainability of water resources infrastructure and other climate information depends largely on adequate and accurate basic Hydromet information.

In late 2019 it has been established Hydromet Working Group (HWG) which was aims to advance Hydromet services within the country and facilitate the users to integrate their priorities, provide appropriate publicity and support feedback and dialogue, as well as provide technical assessments of delivered products. The HWG is discussing whether an how to expand its membership beyond the core institutions mentioned above, to include other actors and users involved in this space such as line ministries, Non-Governmental Organizations, Civil Society Organizations, and donors/development partners in order Develop and implement a consolidated plan to strengthen the capacity of the agencies involved in the provision of hydromet and early warning services.

Although much progress has been achieved, Somalia still experiences weak institutional, in terms of capacity for hydromet monitoring network – hard (infrastructure) and soft (e.g., human

resources) investments.

In light of this understanding, GIZ is executing the multi-donor initiative "Climate-resilient Water Resource Management in Somalia," (**CrWRM**) jointly financed by the European Union (EU) and the German Federal Ministry of Economic Cooperation and Development (BMZ), in partnership with the Somali Federal Ministry of Energy and Water Resources. The objective of the initiative is to enhance systemic resilience to climate change and food crises in Somalia by enhancing the implementation of climate-resilient water resources management in the Juba and Shabelle river basins.

To achieve this goal, the project integrates the strengthening of institutional capacities of partner organizations at both federal and federal member state levels, alongside the acquisition of practical skills, with the demonstration and implementation of tangible measures on the ground to enhance climate-resilient water resources management in the Juba and Shabelle river basins. The project consists of four Outputs:

Output 1 focuses on institutional strengthening to enhance the technical and managerial capacities of federal-level and federal member state institutions in climate-resilient water resources management.

Output 2 aims to strengthen the capacities of federal member states and local actors in maintaining flood protection structures and implementing flood early warning systems along the Juba and Shabelle rivers.

Output 3 aims to enhance access to innovative approaches for expanding the usable water supply through appropriate methods of water storage, distribution, and application.

Output 4 targets gender-transformative approaches to increase women's competencies in the productive use of water resources.

The Ministry of Energy and Water Resources (MoEWR) serves as the political partner of the project. However, MoEWR itself faces capacity challenges that impede the achievement of the project's overarching goals. These challenges predominantly relate to office infrastructure, equipment, furniture, and the need for further exposure, training, and sensitization of staff on topics related to climate change and resilience in water resource management.

Due to the identified shortcomings, the Ministry of Energy and Water Resources (MoEWR) suggests obtaining funding to address institutional capacity issues. This involves enhancing the capabilities outlined in Outputs 1 and 2 of the CrWRM project by providing training for the ministry's hydrology team to develop river rating curves. Additionally, to ensure accurate data on river discharge, especially regarding transboundary river flow originating from Ethiopia, the ministry proposes the establishment of a hydrological station at Beledweyne, located 40 km downstream of the Ethiopian-Somalia border

II. Objectives of the assignment

The goal of this assignment is to enhance the capacity of the Ministry of Environment and Water

Resources (MoEWR) in developing river rating curves, creating a precise (present) stage-discharge relationship for the Beledweyne hydro-station, deducing stage-discharge relationships for successive periods between 1990 and 2020 for the Beledweyne hydro-station, and evaluating the level of confidence in the resulting discharge time-series.

III. Scope of work/expected output

Measure 1: Improving Ministry Competency:

MoEWR will: -

- Conduct a needs assessment to identify the specific training requirements of the 15 crucial staff members involved in hydrology related to the Juba and Shabelle river systems.
- Organize training sessions covering topics such as hydrological principles, data analysis techniques, river rating curve development, and flood forecasting methods.
- Conduct awareness sessions on the importance of accurate hydrological data collection, analysis, and interpretation.

Measure 2: Development of Current Rating Curves for Beledweyne Hydro-station:

MoEWR will: -

- Collect historical discharge data for the Beledweyne hydro-station (MoEWR has an archive of historical information on Beledweyne hydrology station).
- Analyse the collected data to identify trends, patterns, and anomalies.
- Utilize appropriate statistical methods and hydrological modelling techniques to develop current rating curves for the hydro-station.
- Validate the developed rating curves using independent datasets if available.
- Document the methodology, data sources, and results in a comprehensive report.

Measure 3: Development of Plausible Rating Curves for Consecutive Periods (1990-2020):

MoEWR will: -

- Gather historical discharge data spanning the timeframe of 1990 to 2020 for the relevant river systems.
- Employ statistical analysis techniques to identify trends and variations in river flow characteristics over the specified period.
- Develop plausible rating curves for successive periods within the timeframe using the collected data.
- Validate the developed rating curves using historical data not used in the curve development process.
- Document the methodology, assumptions, and outcomes in a detailed report.

Measure 4: Utilization of River Rating Curves for Evaluation and Forecasting:

MoEWR will: -

- Apply the developed rating curves to evaluate and forecast river flow characteristics, particularly focusing on water resource management and flood prediction.
- Assess the accuracy and reliability of the forecasts against observed data and historical records.
- Implement hydrological modeling techniques incorporating the developed rating curves

to enhance flood forecasting capabilities.

- Document the application of river rating curves in diverse tasks such as water resource management, flood prediction, and hydrological modeling in the final report.
- Provide evidence showcasing the practical application and benefits of utilizing these curves through case studies, examples, and validation results.

IV. Timeframe and Expected Deliverables

Expected key deliverables:

Through this initiative, the Ministry of Energy and Water Resources (MoEWR) aims to achieve the following:

1. Improve the ministry's competency by offering training, exposure, and awareness sessions to 10 crucial staff members engaged in hydrology related to the Juba and Shabelle river systems.
2. Develop current rating curves for Beledweyne hydro-station.
3. Develop plausible rating curves for consecutive periods within the timeframe of 1990 to 2020.
4. Utilize river rating curves to evaluate and forecast river flow characteristics, thereby assisting in diverse tasks like water resource management, flood prediction, and hydrological modelling. The final report should include evidence showcasing the practical application of these curves.

CONTRACT MANAGEMENT

The consultant will report to the Ministry of Energy and Water Resources (MoEWR), particularly the Director General MOEWR. The consultants will also work closely with Ministry of energy and water at Hirshabelle State.

V. Qualifications and Competencies

▪ Experience and Skills:

The Firm should also have the following expertise:

- Core business of the firm and at least 10 years of cumulative experience of delivering expertise in such areas Hydrology, Modeling, Hydraulic, water resources mapping, and Feasibility Study.
- Experience of conducting similar assignment (Proven, verifiable, and substantive experience of working in Somalia in areas relevant to the assignment, such as arranging Water Resources Information system.
- Specialization in Hydrometrology related sector with over 10 years practical experience in Hydromet network improvement; instrument installation, operation, data acquisition, transmission, data processing system; and developing field data management plan;

- Knowledge and experience in real time hydro-met observation systems, data collection and database management;
- A comprehensive understanding of, and strong experience in analysing hydrological, meteorological, and climate monitoring, early warning systems, for Hydromet and building cross-sectoral linkages for undertaking the task mentioned in the scope of work;
- Experience in conducting comprehensive assessments related to meteorology, hydrology and water resources development and drought and flood management in Somalia will be an added advantage;

VI. Other Information