

REQUEST FOR PROPOSAL FOR THE PROVISION OF WATER MANAGEMENT SERVICES IN MAHAMA REFUGEE CAMP

ANNEX A. TERMS OF REFERENCE

1. INTRODUCTION:

The United Nations General Assembly mandated the United Nations High Commissioner for Refugees (UNHCR) to ensure protection and multi-sectoral assistance to refugees and asylum seekers. The Government of Rwanda through its MINEMA and UNHCR co-coordinate the refugee response for nearly 126,916 refugees, who live in five camps, Emergency Transit Mechanism (ETM) Gashora and urban areas. Across the country, five refugee camps (Kigeme, Mugombwa, Nyabiheke, Kiziba & Mahama) & ETM Gashora host refugees and other PoCs fleeing their home countries.

In the Rwanda context, refugees and other PoCs enjoy freedom of movement and the right to work as well as access to education, but majority of refugees live in camps largely depending on humanitarian assistance provided by UNHCR and partners to meet their basic needs, including shelter, water, sanitation, health, education, and all other needs, including food (or cash for food), provided by the World Food Programme (WFP). To bridge the gap for sustainable solutions, UNHCR Rwanda's long-term vision (2017-2030) is aligned with the 2030 Agenda for Sustainable Development and will be guided by the following principles: 1) targeted and needs based assistance; 2) self-reliance (economic inclusion, empowerment and employment backed by protection monitoring; no refugee interventions without thinking local population benefits).

The overall strategic framework – as elucidated in the UNHCR Multi-Year Plan (2023 – 2025) is to mainstream refugee services into national systems with the eventual handover of Mahama water system to the district by 2025.

2. BACKGROUND ON WATER SUPPLY SYSTEM IN MAHAMA CAMP

The water supply to refugees at Mahama Refugee Camp is provided through the operation of a Permanent Water Treatment Plant (PWTP) which is in Munini Cell, Mahama Sector, Kirehe District in the Eastern Province of Rwanda. The construction of the plant with capacity to treat 1,200 cubic meters of clean water per day was fully funded by DFID, in partnership with MINEMA, UNHCR and UNICEF for a total amount of GBP 650,000 based on the preliminary design study conducted under consultancy provision funded by UNICEF in September 2015. The plant came as a response to a predictable and reliable solution for provision of clean water to refugees and the host community and the PWTP was completed in November 2016.

The infrastructure for water supply has progressively improved from the temporary water treatment plant (TWTP) - with 900 cubic meters per day capacity to serve about 45,000 individuals - to the permanent facilities including the permanent water treatment plant producing 1,800 cubic meters per day. The permanent water plant is automated with a remote-control system and has the following components (1 river floating intake structure for raw

water, 1 pre-sedimentation tank, 2 sedimentation tanks with laminar layers and flocculation system, 2 rapid sand filters, 2 chemical dosing units and clean water storage tank, pumping system for intake, 2nd sedimentation tank to sand filter and from clean water tank to the camp for distribution).

Currently the PWTP is run by national grid energy source with a backup of 200KVA generator that supports water treatment and transportation. The PWTP has two in-take lines – 160mm and 200mm pipes- with maximum production capacity of 1,800 cubic meters of water per day. This can serve close to 60, 000 refugees and more than 14,000 individuals from host communities; the water system serves more than 20 litres/person/day.

The water is distributed within the camp and host communities through a network of water pipelines of about 28.033 kilometres long with pipe size ranging from 160mm to 200mm diameter transmission mains connecting intake an WTP to the water tanks with 920 cubic meters storage capacity and 110mm to 32mm dia pipes for distribution network, 140 water tap stands of 6 taps each in the camp and 5 water points in host community.

This request for proposal is to solicit interested local commercial companies (Company legally registered in Rwanda) with impeccable integrity and necessary expertise to submit proposal for operation & maintenance of the water supply system including an automated water treatment plant in Mahama refugee camp whilst contributing complementary & effective utilization of resources. Considering the challenging resource mobilization environment, interested organizations are invited to propose any innovative initiative that will ensure sustainable operation and maintenance (O&M) of the system leading to uninterrupted water supply. In line with the multi-year plan highlighted above, interested company should demonstrate support to UNHCR overall strategic thinking of reducing the costs of Operation and Maintenance (O&M) leading to overall handover of the water system to the district. The plans hovers, but not limited to, reducing water losses, enhance community participation and support, solarizing the energy source and engage key stakeholders for mainstreaming services in national systems.

This call is intended to generate a standby list of interested & experienced private companies that can take over of the management of water supply system in Mahama Camp depending on availability of funding. The selected company will immediately carry out detailed cost analysis on water production based on the existing information from the Client and collected data on the ground with the purpose to make the system cost effective and efficient.

3. DESCRIPTION OF MAHAMA WATER SUPPLY SYSTEM

Mahama water supply system is basically a combined pumped and gravity system which is abstracting raw water from Akagera River. The system has the optimum capacity to produce around 1,800 m³/day of clean water and currently serves around 59,000 refugees in Mahama refugee camp at average of 24.0 Liters/person/day and 10,000 people from surrounding communities. The status of different components of this water system such as intake, treatment facilities, pressure and distribution mains, water storage facilities and water collection points are described below:

3.1. Status of Mahama water treatment plant (WTP)

The WTP is located at 2°19.3040'S and 30°50.6230'E in Munini Cell, Mahama Sector, Kirehe District in the Eastern Province of Rwanda with below features:

- WTP has two parallel wings, each with independent raw water tank, sedimentation tank and flocculator, sand filters, etc. with possibility to be operated concurrently.
- The WTP is high tech facility with automatic operation system,
- Connected to national power grid and one generator (200kVA) as backup for power supply.
- Average daily production capacity is 1600 m³ of clean water for 17 hours of operation (approx. 94m³/hour)
- Chemicals used on daily average: Aluminium Sulphate= 95kg/day; Flocculant (Aquafloc)= 1Kg/day; Sodium Chlorine= 85L/day, Calcium hypochlorite: 1kg/day and Caustic Soda= 16L/day

3.2. Intake structure and Raw water pumping

Akagera perennial river is the raw water source for Mahama Permanent Water Treatment Plant where two floating intakes (duty and standby) have been installed. Each intake is holding a submerged pump of 19KW; TDH= 40m; Q=100m³/hour pumping raw to the "Raw Water Tank" at the WTP through the delivery valve connected to the HDPE pipe 160mm and 200mm parallel having a length of 350m. Other two new pumps were installed at offshore intake in Oct 2022 with TDH=40.3m; Q=100m³/hour and 2470RPM.

3.3. Clean water storage tanks

The total storage capacity in Mahama refugee camp is 1170m³ and 170m³ in the host community as per below details:

- 150m³ for 2 storage reinforced concrete tanks of 75m³ each at WTP,
- 250m³ of Head tank (steel elevated tank) in Mahama refugee camp.
- 920m³ of distribution tanks in Mahama camp: 51 plastic tanks of 10m³ each, 3 steel tanks of 90m³ each (Oxfam T-90) and 2 steel tanks of 70m³ each (Oxfam T-70),
- 170m³ of distribution tanks in host communities (masonry tanks: 2 of 50 m³ each, 1 of 10 m³ and 1 of 60m³).

4. SCHEDULE OF REQUIREMENTS

Goal/Objective, Expected Outcome and Main Activities:			
Sector Objective	Expected Outputs and Outcomes	Key-Activities	Location
Supply of potable water increased or maintained	Access to safe and sustainable water supply improved and maintained	General Activities Include but not Limited to: <ul style="list-style-type: none"> ▪ Maintenance of water distribution system. ▪ Operation and maintenance of raw water treatment plant ▪ Undertaking water quality control; ▪ Distribution of water to refugees and surrounding host communities ▪ Implementing Mahama water safety plan 	Mahama refugee camp

		<ul style="list-style-type: none"> ▪ Regular reporting to UNHCR on water supply activities <p><u>Weekly:</u></p> <ol style="list-style-type: none"> 1. Daily Jar-tests and routine water quality tests 2. Daily pumping of no less than 1600m³ of water 3. Daily tracking of water losses and leakage via a strong surveillance system 4. Daily water treatment and quality adjustments as deemed pertinent. 5. Daily availability of back-up and readiness to activate 6. User committee interface and support 7. Weekly report on Operation and Maintenance of TWTP 8. Flood control of in-take as deemed pertinent 9. Bi-weekly plans and progress <p><u>Monthly:</u></p> <ol style="list-style-type: none"> 1. Monthly routine water quality testing, monitoring and analysis 2. Water pumping consolidation 3. Water consumption reports and filling of HIS 4. Water consumables, supplies and reagents stock reports 5. Monthly interface with user committees, UNHCR and MINEMA 6. Monthly maintenance schedules and progress 7. Monthly water losses determination <p><u>Quarterly:</u></p> <ol style="list-style-type: none"> 1. Comprehensive water quality testing, monitoring and analysis 2. Quarterly water pumping test 3. Quarterly water indicators (per capita water consumption, per capital energy consumption, per capita costs, etc.) 4. Quarterly O &M progress 	
<p>Mainstreaming refugees water services in National systems</p>	<p>Develop systems that will reduce O&M and shape the water system ready for handover to District</p>	<p><u>Overall:</u></p> <ul style="list-style-type: none"> ▪ Develop systems, to include refugees into the operation and maintenance through community participation. ▪ Enhance community-based management systems ▪ Participate in the Solarization of the system future. ▪ Engage stakeholders in mainstreaming water supply services <p><u>Monthly:</u></p> <ol style="list-style-type: none"> 1. Monthly progress towards mainstream 2. Monthly activities towards reducing O&M 3. Monthly engagement with District, UNHCR and MINEMA towards mainstreaming/ 	<p>Mahama</p>
<p>Intended Population of Concern:</p>			
<p>Refugees in Mahama and host communities in surrounding villages (60,000 refugees and 14,000 host communities)</p>			
<p>Contract type:</p>			

Frame Agreement with duration of 3 years with a possibility of extension for 2 years.											
Mandatory field visit	As part of the preparation of tenders, bidders must visit facilities their own expense to inquire about the status of equipment and socio-economic context of the various places where the water supply systems are located. For this purpose, the bidders will take an appointment with the concerned committee.										
Roles of different actors	<p>In the legal framework of Rwanda, the following actors are involved for the management of the proposed water supply facilities with responsibilities not limited to:</p> <ul style="list-style-type: none"> • The Private Operator is responsible for the technical operation, commercial and financial service for the water supply facilities. The Private Operator will be selected by open competition. • There will be the capacity building of the team members of Private Operator in collaboration with UNHCR and outgoing Partner • UNHCR in collaboration with its Partners and Private Operator will ensure sensitization to water users for the safeguard of water infrastructures (sources, pipes, water taps, water meters, tanks and others). • UNHCR/MINEMA represent the water users and controls the service provided by the Private Operator. • UNHCR/MINEMA has the right to involve WASAC & District Officials to provide technical support regarding the planning and designing of new projects and/or rehabilitation of the existing water infrastructures. • The Private Operator has to provide the detailed report/stock reports to the client on usages of the resources as assigned and willing to undergo the UNHCR auditing process • UNHCR shall provide the necessary information to Private Operator to allow the smooth take over and continuous operation of the water supply system and services to beneficiaries. 										
Standards	<p>Water Quantity and quality test results should conform to national, UNHCR and JMP/ WHO standards. National standards supersede any standard in any abstract situation as described on the link https://www.mininfra.gov.rw/fileadmin/user_upload/Mininfra/Documents/Water_and_Sanitation_docs/2_Rural_Drinking_Water_Quality_Framework.pdf. There are also UNHCR water quality standards to guide water quality tests and analysis.</p>										
Staff	<p>The table below highlights critical skills and competencies required for optimal operation and maintenance of the water systems.</p> <table border="1"> <thead> <tr> <th>Key Staff</th> <th>Key Requirement</th> <th>Units</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Water System Manager</td> <td>Should have a BSc in social science or engineering with a minimum of 5 years of experience in water system management</td> <td>1</td> <td></td> </tr> </tbody> </table>			Key Staff	Key Requirement	Units	Remarks	Water System Manager	Should have a BSc in social science or engineering with a minimum of 5 years of experience in water system management	1	
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	Water Supply Engineer	Minimum of BSc in mechanical, engineering, hydraulic, water engineering with a minimum of 5 years of experience in water supply	1	For surveillance, quality control and trouble shooting
	Electromechanical engineer	Minimum of a BSc in electromechanical engineering with a minimum of 3 years of experience in electromechanics in the private section	1	For surveillance, quality control and trouble shooting
	Water quality analyst	Minimum Dip in in laboratory technology, biochemistry, microbiology or related discipline with a minimum of 3 years in water quality.	1	
	Community Mobilization expert	Dip in Social work or community Mobilization with a minimum of 3 years in community mobilisation with a humanitarian organisation.	1	UNHCR and contractor to jointly develop TOR of this position
Equipment and infrastructure	<p>The link below highlights key electromechanical equipment of the Water Treatment Plant provided by UNHCR.</p> <p>This inventory is in addition to the water systems immovable infrastructure and kits for surveillance. The water operator may only need to outsource quarterly comprehensive water quality tests (outside the existing capacity).</p>			

5. QUALIFICATION AND BID EVALUATION

UNHCR is working based on humanitarian principles. Bidders must be willing to work with all intended beneficiaries, regardless of their race, religion, nationality, political opinion, or gender, and must provide services based on identified needs only, without linking assistance, directly or indirectly, to any ethnic, religious, or political considerations. Additionally, bidders must meet the show proof of having the experience and resources required to carry out the project. Bidders shall be evaluated based on three parts as follows:

5.1. Formal Evaluation.

This shall be a desk review of bidders' administrative standing and shall include the following:

- 5.1.1. Legal registration as business company with the recognized office location in Rwanda.
- 5.1.2. Acceptance of UNHCR general terms and conditions for the provision of services
- 5.1.3. Licensed by the Rwandan utilities and regulation authority board
- 5.1.4. Acceptance to abide by UN suppliers' code of conduct.
- 5.1.5. Determination that your firm is not on a sanctions list.

5.2. Technical component (60%)

- 5.2.1. Proposed approach and methodology to provide the services
- 5.2.2. Experience on local context of management of water supply systems and in clean energy
- 5.2.3. Staffing proposal
- 5.2.4. Equipment
- 5.2.5. Financial capacity

5.3. Economic component (40%) and only bidders who shall score a minimum of 60/100 on the technical part shall be evaluated at this stage. Bidders shall quote prices for replacement parts and accessories/fittings that shall remain unchanged for two years. In case the contract will be extending for a third year, the prices of parts and accessories/fittings, shall be jointly agreed upon following market research by UNHCR.

- 5.3.1. **Fast moving replacement parts:** for fast moving replacement parts. Upon approval by the UNHCR project manager in the field the supplier shall replace fast moving parts at the cost stated in the financial offer. Each month UNHCR shall review the number of fast-moving parts used and shall reimburse the cost in your invoice.
- 5.3.2. **Slow moving parts.** When a slow-moving part is required to be replaced, the UNHCR shall have the right to request the contractor to replace at his quoted price in response to this RFP or procure the part itself and give the supplier to replace. If UNHCR provides the part, no additional fee shall be charged for replacement.