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MINISTRY OF WATER AND ENERGY
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**URBAN WATER SUPPLY STUDY, DESIGN AND
 CONSTRUCTION SUPERVISION DESK**

**Terms of Reference for Consultancy Services of Study and Design Review and
 Construction Supervision and Contract Administration of Drilling of Water
 Wells Works of Muke-Turi and Goro Town Water Supply And Sanitation
 Project**

November, 2025

Addis Ababa, Ethiopia

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1. Background

Water is one of the most necessities for the existence of living things in general and human beings in particular, especially potable water in modern world. For any country, one of the basic and essential services by all standards is efficient service in water supply. Unless and



otherwise this demand of the community is efficiently met, the health of the community and developmental activities will be highly affected. Ethiopia in general; and Amara region in particular has vast ground water and surface potentials. Yet, millions of people in the region have no enough access to potable water supply. Ethiopia has set an ambition of becoming a middle-income country by 2030. In order to achieve this, huge attention has been given for the overall development of all sectors. Promoting drinking water and sanitation, and energy development; are among the key areas for the government's contribution in the achievement of this vision.

The Ministry of Water and Energy (MoWE), as a key ministry of the FDRE, will provide the construction and expansion of the necessary infrastructures of Water Supply and Sanitation for the advancement of the daily life of the society

Due to high population pressure and increasing demand for water supply, most of Ethiopia's urban areas have been challenged by interruption of water supply services. Increasing of number of towns and migration from rural to urban areas are the main which result in the poor service delivery of water supply and sanitation facilities. The Government of Ethiopia in collaboration with development partners has been working to address the services delivery gaps in water supply and sanitation aspects. Accordingly the GOE allocated a budget from treasury for the design review and boreholes drilling and construction of 15 towns including Muke Turi and Goro town in this fiscal year.

1.1. Location and Accessibility

MukeTuri Town is found in North Shoa Zone, Wachale Aana of Oromia National Regional State. It is the capital town of the Aanaa. It is situated about 35km south of Fitcha town-the capital of the zone. It is situated about 80km north of Finfine and the town is accessible in any season as it is situated along the main highway asphalt from Finfine to Gojam. The geographical location of the town is 0485826 N and 1056068 E UTM (datum WGS84) with average elevation of 2645m a.s.l.



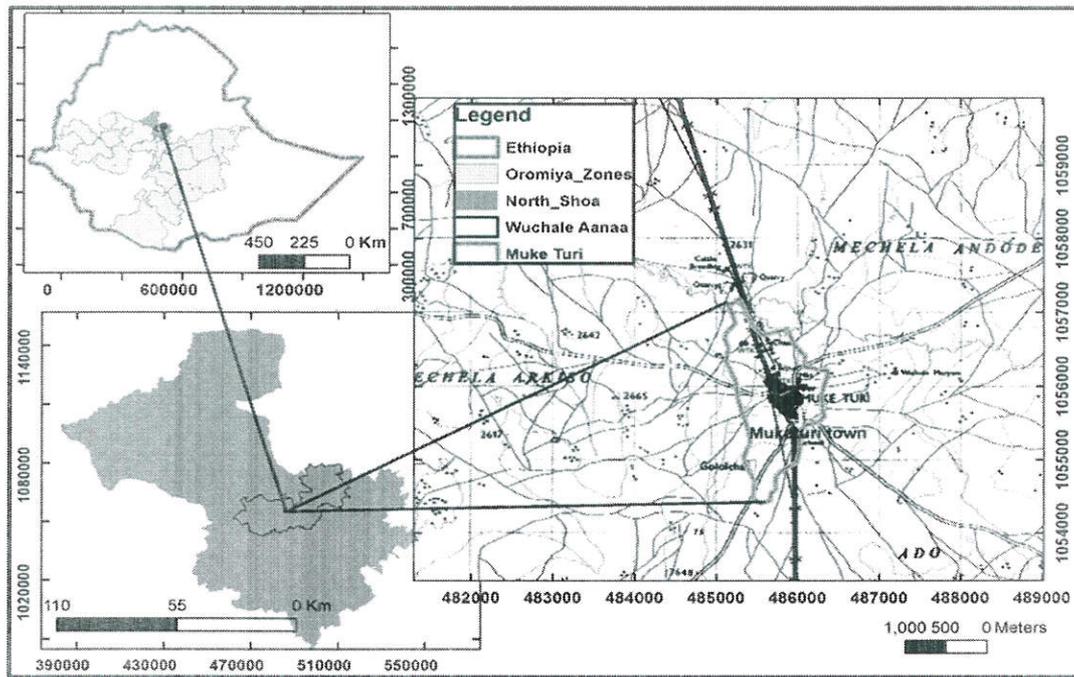


Fig.1:- Location of Muke-Turi Town and Study area

The proposed study area Goro Muti Town found at the Oromia National Regional state, East Hararghe zone, Goro Muti District. The town is located at a distance of 110kms from Harar town in which 82km is asphalt up to Chelenko town, and then 28km is all weathered gravel road. Harar town is accessible from the capital town of Oromia Finfine by asphalt road in which covering a distance of 525km towards Eastern Oromia. Geographically the area situated at $9^{\circ}40'30'' - 9^{\circ}11'50''$ North latitude and $41^{\circ}33'30'' - 41^{\circ}34'30''$ East longitude with an elevation range of 2750–1800 meter above sea level. The district of the town administered by Meta district administration and then before two years it separated and constructed its own district administration.



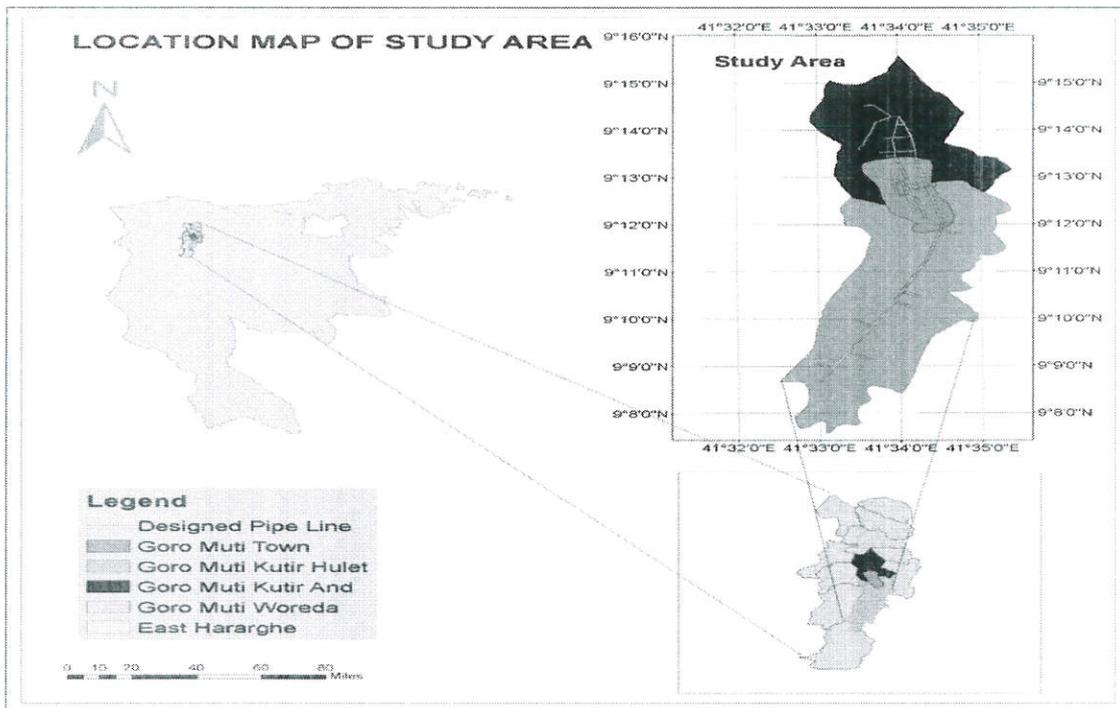


Fig.1. Location Map of Goro Mute Town and Surrounding Village

1. Objective

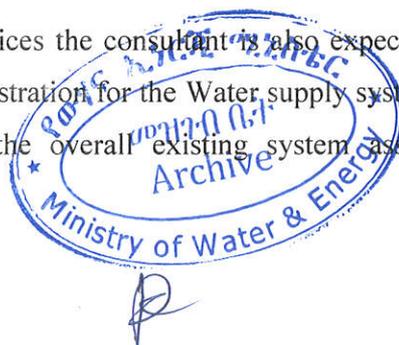
1.1. General Objective

The general objective of the project is to contribute its part to the improvement of the well-being & livelihoods of the residents in Muke Turi and Goro town through provision of safe, adequate and sustainable water supply.

The primary objective of this assignment is to assess the Water Supply, Sanitation, and Hygiene (WASH) conditions in communities and institutions for Goro Mute town and surrounding villages. The consultancy will focus on reviewing existing design documents, ensuring they are technically sound and ready for implementation.

1.1. Specific Objective

The specific objective of this study is to prepare Final Detail Design for Muke Turi town water supply system with sufficient details that could allow the designs to proceed directly to implementation. The study will investigate & confirm the adequacy of existing sources & water sources investigation to define the most cost effective scheme for the town. During his assignment of consultancy services the consultant is also expected to conduct BHs drilling supervision and contract administration for the Water supply system for Muke turi. and The consultancy services include the overall existing system assessment, identifying gaps,



population forecast, water demand analysis, propose appropriate water supply and sanitation infrastructures, design the system, prepare drawings, BOQs, specifications, separate tender documents for BHs drilling and other civil works including pipes and fittings, EMs supply and installation and e.tc in discussion with client. The study is, therefore, will be comprehensive & it address the proper inventory of existing water resource data, water supply system, & criteria to be adopted for proper hydro-geological & engineering design of the system that will satisfy the demand of the town for the proposed design horizons.

1. Scope of the Consultancy Services

The Consultant shall be the Employer's authorized representative and shall provide design review and supervision and contract administration of drilling works of Muke Turi and Goro town water supply and sanitation project as described in the TOR below, including the provision of qualified experienced personnel, management, co-ordination and efficient execution of these services. The services shall include; review of the design conducted by the former local consultant identifying study and design gaps in the assignment of the previous consultant, collecting all relevant socioeconomic data of the project area, assess gaps in socioeconomic data and proposed water supply infrastructures, undertake detail design for the whole system, conduct detail water source investigation and check whether the proposed well fields and number of BHs are feasible for the current and future forecasted population and consider any change for the new proposed water supply infrastructures. The services will further include on-job training and skill transfer for the Client's Personnel who will be seconded to the consultant during the project period (if requirement arises).The consultant shall exercise full care and diligence in performing the proposed work and shall provide sufficient manpower to complete the proposed work within the stipulated time of completion.

The consultancy service is a mixture of lump sum and time-based contract for consultancy services pertaining to main three tasks and the consultancy service assignment will take total of 8 months for the detail design review (Task-I and Task-III) and 8 months for the drilling construction supervision and contract administration works. The detail assignments of the consultant firm are briefly described under each sub tasks to give the consultant the overview of his work detail. The consulting firm to be hired must be highly competent /reputable and must have experienced key professionals and appropriate support staff with ample work experience.



❖ Main Tasks of the Assignment

For clarity and simplicity of the assignment, the consultancy services divided in to three main tasks to be conducted by the consultant firm to be hired and detailed as follows.

Task1:-Draft Design review of the Water Supply and Sanitation System

The consultant firm to be hired will be responsible to review the design works of Muke Turi and Goro Town Water Supply System that was conducted by former local consultant firm and the subtasks expected to be conducted by the firm include, but are not limited the following.

1.1.Documents Review (Study and Design)Works of the former local consultant

- Site visit and revising the previous design works of the town and preparing inception report on the methodologies and schedule to be followed during the review and submittal documentation proposal should be presented.
- Revising the socio-economic study for the town and identify data gaps and present and present to the client for decision if there is high gap on the previous data.
- Comprehensive examination and review of the study and design of the water supply documents conducted by the former local consultant for the town water supply system.
- Review similar studies and design water supply projects' documents for benchmarking the gaps
- Identify the gaps in the study and design works of the former design consultant in all aspects of the assignment i.e. in aspects of socioeconomic data collection, ground water source investigation, existing infrastructure identification, population forecast and water demand analysis, setting design criteria, proposing water supply components, environmental impact assessment, gender and social inclusion and etc.
- Collect data on the infrastructures availability (Water supply, sanitation, road and etc.) in the project areas and coverage
- Collect relevant WaSH status (coverage) of the water supply for the town in terms of water source, network distribution, hand wash practices at critical times, access to basic sanitations, having VIP latrines and etc. and prepare comprehensive



WaSH baseline data report.

- Propose appropriate design approaches for the water supply project to fill the identified gaps in all aspects of the design works.
- The consultant shall prepare feasibility study report from the collected data for the civil works, pipe and fitting and electromechanical summary
- Conducting consultations with the regional Water and Energy Bureau and participating whole stakeholders to assure as the services are carried out as per the need of users in conformity with the existing situation before proceeding to the next step.

○ **Detail Works Expected from the consultant during this task**

During this task the consultant is expected to prepare inception report that will be approved by the client, finalize the population data collection and forecast, water demand analysis and detail water source investigation including proposed well fields and number of proposed BHs with their respective estimated depth and discharge. The consultant also expected to prepare feasibility study and final water source investigation reports.

Based on this studies and results the consultant will prepare BOQs for drilling, drilling well design and drawings, final bid documents for drilling works, drilling works specifications, including works requirement during the drilling activities i.e. manpower and machinery requirements with required qualification and capacity respectively.

Task-2:- Drilling works construction Supervision and Contract Administration

These are time based activities and upon the completion of detail water source investigation and the procurement of drilling company for drilling works the consultant is expected to conduct drilling works construction supervision and contract administration

The general objective of this task is to carryout Drilling and Construction water wells supervision of four (4) deep wells; it is based on the past study and the numbers of boreholes depend on the proposal of the consultant's during the detail water sources investigation in task I. The selected firm (the "Consultant") will be expected to give attention to the activities as specified below.

- The Consultant is responsible for ensuring that the rig is precisely positioned over the pegged site and away from any potential hazards, such as overhead electrical cables.



- The Supervisor shall constantly monitor the drilling depth, depth penetration rate, and sample collection.
- The Supervisor shall ensure that the drilling contractor adheres to the depth interval for sample collection specified in the drilling contract or agreed upon otherwise. As a permanent record, the samples will be photographed.
- The Supervisor shall prepare a graphic strata log of the borehole which will form part of the final borehole report.
- The Supervisor shall instruct the drilling contractor to stop drilling when the target depth is reached. The decision to end drilling will depend on the information gathered in the course of drilling which will include:
 - ✓ the depth specified in the Contract
 - ✓ depth of the aquifer
 - ✓ static water levels
 - ✓ the estimated yield from the borehole
- When the risks of drilling a dry borehole become apparent during the drilling, particularly from the output during hammer drilling, and the recommended depth has been attained and possibly exceeded, the supervisor may choose to stop the drilling and declare the borehole unacceptable without installing casing and screens. In such cases, based on the bill of quantities, the contractor should be paid for items of work completed until the borehole was declared unacceptable.
- The consultant shall instruct the drilling contractor on the final borehole design, including the depth interval to be screened, screen slot size, gravel pack depth interval, and material grain size according to the BOQ
- Once the borehole depth and screening depth interval have been determined, the consultant shall draw a sketch of the proposed casing and screen assembly. The casings and screens will be laid out according to the sketch and individually measured, totalled, and checked for conformity. For the record, the consultant will photograph the layout or casing installation construction log.
- The consultant will inspect and ensure the quality of the casings supplied by the drilling contractor based the approved casings assembly.
- The consultant shall ensure that the joints between casing lengths are strong enough to support the full weight of the casing during installation. Threads should be undamaged. Before they are joined, both male and female threads will be thoroughly cleaned with a wire brush and cloth. When using non-threaded couplings, they should

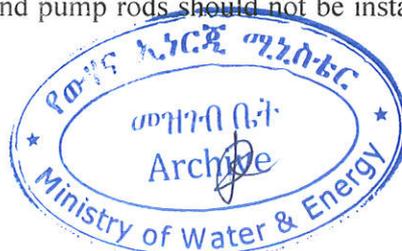


be cleaned and joined together using the solvent cement or glue recommended by the manufacturer, and time recommended for it to set should be observed. Where steel casings and screens have to be welded, the consultant shall ensure that the welding is fully penetrating and continuous.

- The consultant shall ensure that borehole development is undertaken according to the specifications in the drilling contract. At the end of the development the water coming out from the borehole is clear of mud and is sand-free. Samples of the water shall be collected in a clear container and checked to see that there are no sediments collecting at the bottom of the container.
- The consultant shall ensure that a sanitary seal is placed in the top 10m to prevent surface water which may be polluted from flowing down the borehole annulus into the aquifer.
- The consultant is responsible for ensuring that the Drilling Contractor performs the pumping test as specified in the drilling contract, whether it is provisional test followed by a step test followed by a constant rate test and recovery rate measurement.
- The consultant must analyse, interpret the data collected from the Pumping Test to determine the specific capacity or safe yield of the borehole using software/model.

Based on the requirements specified in the Drilling Contract, the consultant shall determine whether the specific capacity is sufficient for the borehole to serve as a potable water supply. The consultant will make recommendations on the borehole's pumping regime for EM re-design.

- The consultant is responsible for ensuring that the Drilling Contractor collects samples and performs water quality testing as specified in the drilling contract. The consultant shall approve the water quality testing form that the drilling contractor. The consultant must ensure that the Drilling Contractor measures the mandatory Physico-chemical and microbiological parameters according to WHO guideline and National standard for drinking water supply in certified Laboratories.
- Based on the results of the water quality analysis, the consultant shall determine whether the water's chemical and bacteriological quality is adequate to serve as a potable water supply in accordance with the National Drinking Water Quality Standards or the WHO Guidelines in the absence of national standards. As well as, specific precautions must be taken in the case of corrosive water (pH 6.5). Galvanized iron (GI) riser pipes and pump rods should not be installed in water with a pH lower



than 6.5. The consultant is responsible for ensuring that the appropriate EM materials and other necessary treatment systems in the re-design, based on water quality analyses result

- The consultant shall ensure that the completed borehole is disinfected by the Drilling Contractor as specified in the Drilling Contract.
- Following completion of the works, the Drilling Contractor shall submit all required documentation to the client restore the site to its previous state, and demobilize from the site.
- For each borehole drilled, the consultant must ensure that the drillers' borehole completion report complies with the Drilling Contract (including boreholes that were aborted).
- The consultant will also responsible for the checking of the contractor's payments for the executed activities as per terms and condition of the contract for drilling.

Task-3 Detail Study and Design Review works

Upon the successful completion of drilling supervision and other activities the consultant will expected to complete the detail design review works to expected standards of works.

The followings are the detail activities expected from the consultant during this task.

- The consultant shall collect and update all socioeconomic data in the project town Water Supply and Sanitation System.
- Draft Detail design report considering the sources, transmission line pipe and fittings, electromechanical equipment sizing, distribution pipe and fittings sizing, power supply alternative sizing and recommendations with justification considering economic, technological and environmental issues.
- Simulation of the transmission and distribution lines with Water Cad and similar simulation software for the selection of the pipes and fittings and incorporating the recommendations.
- Resizing of Electromechanical equipment for BHs and Booster stations in the water supply system along all routes related to pipes and fittings and accessories.
- Assess and identify efficient and economical potential power sources and propose selected alternatives power source including solar power or hybrids.
- The consultant will assess the potential for a solar power source in the area and its hybrid applicability in the water supply system.
- Preparation of revised complete final detail design reports including revised



socioeconomic report, business plan, institutional arrangement or setup study and etc.

- Preparation of revised complete working drawings for all components of the water supply system depending on the reviewed data and approved design review report of the project.
- Conduct regular federal level consultation and approval of the tasks at each stages of project implementation to assure as the services and tasks are as per the needs of the users fulfilling the situations on the ground.
- During the client appraisal session, present the design review reports, identified defects and deficiencies, and proposed solutions for project completeness/improvement
- Preparation of BOQ and technical specifications for the proposed activities and goods depending on the design report
- Tender document preparation and detail working drawing for the water supply and sanitation Project.

2. Deliverables of the Assignment

The followings are Expected deliverables of the consultancy services with respect to their tasks.

Task-1 Draft Design review of the Water Supply and Sanitation System

- Inception report
- Feasibility Study and design
- Final Socio-economic Report
- Draft Design review with detail population forecast and Water Demand Analysis
- Detail water source investigation Report and
- Final Bid documents for Water Wells drilling works

Task-2 Drilling works construction Supervision and Contract Administration



Upon the completion of detail water source investigation and the procurement of drilling company for drilling works the consultant is expected to conduct drilling works construction supervision and contract administration

The general objective of this task is to carryout Drilling and Construction water wells supervision of four (4) deep wells; it is based on the past study and the numbers of boreholes depend on the proposal of the consultant's during the detail water sources investigation.

The consultant is expected to deliver the following assignments

- a) Drilling of deep well(s) progress and completion Report

The Consulting firm, expected to ensure the following works executed;

- ❖ Daily records of the drilling progress
- ❖ Conduct water quality test
- ❖ Monthly status and progress report
- ❖ Conduct provisional and final pump test
- ❖ Submit final well completion report for wells including water quality test results

Task-3 Detail Study and Design Review of the Water Supply and Sanitation Project

- Final detail design report
 - Final ESIA report
 - Final business plan report
 - Final Institution Organization report
 - Final BOQ and Bid document for Construction of Water supply and Sanitation Infrastructures
- a. The report shall depend on the result of the drilling report, source outputs to finalize the demand and system design.
 - b. The draft detail design report shall be submitted in 8 weeks of time from the final feasibility report/drilling completion report gets approval from the Client.
 - c. The detail design report shall have a draft and final version incorporating the following reports
 - Detail Engineering Design report based on the approved option.
 - Detail Drawings for Construction
 - Bill of quantities and General & Specific Technical Specifications
 - Tender Documents for Construction of



- Civil Works Construction
- Supply of Pipes and Fittings
- Supply and Installation of Mechanical and Electrical Works

d. The final detail design report shall be submitted within the remaining 2 weeks from the date the Client approves the draft and gets clearance.

1. All reports are submitted in 5 hard and 5 soft copies in CD in all versions including surveying data, Water Gems, AutoCAD and GIS versions of the design.
2. The consultant is required to ensure getting approval of the client to go from one phase of the study to the next.
3. The consultant is required to undertake the assignment as per the requirement of this ToR and acceptable engineering practices with its entirety.

At all study and design stage of the project, the consultant is expected to undertake consultation with the beneficiary communities, the WaSH sector offices and town utility and region and federal levels ensure all stakeholders participation in the development of the project design.

4. Time Schedule of the Deliverables

The consulting firm is expected to prepare and submit separate report for each project under the assignment at each milestone.

No	Deliverable	Type	Duration /week/	Ending activity week	Remark
1	Contract Signature			0	
	Stage I-Lump sum				
2	Inception report with prefeasibility study	Draft	4	4	
		Appraisal	1	5	
		Final	1	6	
3	Feasibility Study	Draft	8	14	
		Appraisal	1	15	
		Final	1	16	
	Stage II-Time based				



4	Well drilling construction supervision and contract administration		32	48	Independently(=8 months, tentative)
Stage III-Lump Sum					
5	Detail Design Report	Draft	11	59	Continues from stage I
		Appraisal	3	62	
		Final	2	64	

❖ Note: the drilling duration is tentative and the payment depends on the actual drilling time.

5. Consultant's Team Composition

The Consulting firm shall be legally established firm and committed to put together a team of the required qualification with direct experience and excellent understanding of technical, economic, financial and environmental and social issues related to water Supply, Sanitation and Hygiene.

Curriculum vitae of proven qualifications and experience of the key experts of the team will be the key criteria used to evaluate proposals. The firm is required to attach the professional certificate of key experts as indicated in the table below.



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Table1. Consultant's Key Experts Required

No.	Expertise name	Required	Qualification and Experience	Person Month						Total
				Task I		Task II		Task III		
				Office	Field	Office	Field	Office	Field	
1	Team Leader	1	<ul style="list-style-type: none"> ✓ Minimum BSc or above in Water Supply, Water Resource, Civil/Hydraulics and Environmental (Sanitation) Engineering. ✓ A minimum of 15 years of general engineering and experience in the water supply, water resource and infrastructure projects, ✓ Proven minimum 10(ten) years of experience in study, design of water supply projects ✓ Proven minimum 8(eight) years supervision and construction works on water supply, water resource and infrastructure projects, ✓ Proven capacity in Auto Cad and Water Cad software's application. ✓ Renewed professional license 	3	1	6	2	3	1	16
2	Water supply Engineer I	1	<ul style="list-style-type: none"> ✓ Minimum BSc or above in Water Supply, Water Resource, Civil/Hydraulics and Environmental (Sanitation) Engineering. ✓ A minimum of 12 (twelve) years of general engineering and experience in the water supply, water resource and infrastructure projects, ✓ Proven minimum 10(ten) years of experience in study, design of water supply projects ✓ Proven minimum 8(eight) years supervision and construction works on water supply, water resource and infrastructure projects, ✓ Proven capacity in AutoCad and WaterCad software 	1.5	2.5	0	0	1.5	2.5	8



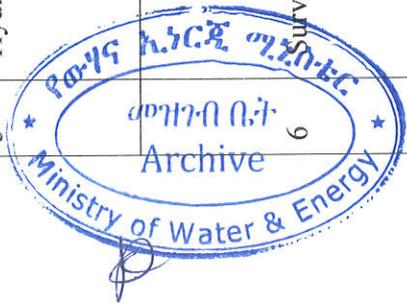
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No.	Expertise name	Required	Qualification and Experience	Person Month						Total		
				Task I		Task II		Task III				
				Office	Field	Office	Field	Office	Field			
			<ul style="list-style-type: none"> ✓ application. ✓ Renewed Professional license ✓ Minimum BSc or above in Water Supply, Water Resource, Civil/Hydraulics and Environmental (Sanitation) Engineering. ✓ A minimum of 12 (twelve) years of general engineering experience in the water supply, water resource and infrastructure projects, ✓ Proven minimum 10(ten) years of experience in study, design of water supply projects ✓ Proven minimum 8(eight) years supervision and construction works on water supply, water resource and infrastructure projects, ✓ Proven capacity in AutoCad and WaterCad software application. ✓ Renewed Professional license 									
3	Water supply Engineer II	1		1.5	2.5	0	0	1.5	2.5			8
4	Structural Engineer	1	<ul style="list-style-type: none"> ✓ Minimum BSc. degree in Civil or Structural Engineering ✓ A minimum of 12 (twelve) years of general engineering experience, in Civil and structural design of Water of water supply structures and infrastructure projects,. ✓ Proven minimum 8(eight) years of experience in design of water supply structures ✓ Proven minimum 6(six) years supervision and 	0	0	0	0	1	1			2



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No.	Expertise name	Required	Qualification and Experience	Person Month						Total
				Task I		Task II		Task III		
				Office	Field	Office	Field	Office	Field	
5	Hydro geologist	1	<ul style="list-style-type: none"> ✓ construction works on water supply, water resource and infrastructure projects, ✓ Proven capacity in AutoCad and structural program software application. ✓ Renewed Professional license ✓ Minimum BSc. degree in Hydrogeology/Geology fields, ✓ A minimum of 12(twelve) years of general engineering experience, in reconnaissance and feasibility study of ground and subsurface of urban and rural water supply. ✓ Proven minimum 10(ten) years supervision of drilling works. ✓ Renewed Professional license 	1	2	2	6	0	0	11
6	Surveyor	1	<ul style="list-style-type: none"> ✓ Minimum diploma in surveying technology and ✓ Experience of minimum 4(four) years in water supply system. ✓ Skill in AutoCAD ✓ Proven experience of 2(two) years in pipe system profile and layout 	0.5	1.5	0	0	0	0	1.5
7	Electro Mechanical	1	<ul style="list-style-type: none"> ✓ Minimum of BSc. degree in Electrical or Mechanical engineering. ✓ A minimum of 12(twelve) years' of a general experience in study & design of electromechanical equipment (pumps, generators or other renewable energy sources) of 	0.5	1	0	0	2	0.5	4



No.	Expertise name	Required	Qualification and Experience	Person Month						Total	
				Task I		Task II		Task III			
				Office	Field	Office	Field	Office	Field		
	Engineer		<ul style="list-style-type: none"> ✓ infrastructure projects ✓ Proven minimum 8(eight) years supervision of testing and commissioning of EM water supply project works. ✓ Renewed Professional license 								
			<ul style="list-style-type: none"> ✓ Minimum of BSc. Degree in Economics, sociology, Anthropology and/or Development Studies. ✓ Experience minimum of 12 years' experience in socio economic assessment study of infrastructure projects. 								
8	Socio-Economist	1	<ul style="list-style-type: none"> ✓ Proven minimum 8 (eight) years' experience in study of economic assessment study of infrastructure projects. ✓ Proven minimum 8 (eight) years' experience in study of water supply project works, including business plan development. ✓ Renewed Professional license 	1	2	0	0	1	2	6	
			<ul style="list-style-type: none"> ✓ Minimum of BSc. Degree in environmental science Studies and Relevant field. ✓ Experience minimum of 12(twelve) years' experience in socio economic assessment study of infrastructure projects. ✓ Proven minimum 8 (eight) years' experience in study of water supply regulatory requirements, interpretations, and health and safety programs project. ✓ Renewed Professional license. 	0.5	1	0.5	0.5	0.5	1	4	



Table2. Consultant's Non Key Experts

S/No.	Expertise name	No of person	Qualification and Experience	Person Month
2	AutoCAD(draftsman)	1	<ul style="list-style-type: none"> ✓ A certificate or diploma in drafting ✓ Experience of minimum 4(four) years in infrastructure projects. ✓ Proven skill in AutoCAD 	2
3	GIS Expert	1	<ul style="list-style-type: none"> ✓ A certificate or diploma in GIS training ✓ Minimum of 2(two) years of experience (compile and integrate new water supply system data, draw maps using design software, and manage the data that is entered into the GIS database.) 	0.5



6. Consultant's Service Administration

The consultant firm is accountable to the Ministry of Water and Energy, Water Supply Lead Executive Officer. The Urban Water Supply Study, Design and Construction Monitoring Desk head will facilitate the execution of the assignment as a project coordinator.

7. Client's Input for The Service

The Client will:

- 1) Arrange a kick of meeting with the project beneficiary stakeholders
- 2) Support the consulting firm team throughout the performance of the service with the communities to help create ownerships in the project under the assignment.
- 3) The client will provide the former consultant's study and design documents
- 4) Play facilitation role for the consultant to have access to data and documents exist at his custody deemed necessary that important for the assignment
- 5) Avail a team of experts for review of the deliverables, for timely feedback and submission of respective final reports by the firm.
- 6) Facilitate appraisal workshop at every stage required(inception, draft feasibility and draft detailed design)

8. Payment Modality for the Consultant

Payment for the consulting firm is effected in two stages as per the following modality:

- a. On Submission of the final approved inception report: 20% of the contract amount
- b. On Submission of Final approved Feasibility Study Report: 30% of the contract amount
- c. On the submission of Final accepted Detail Design Report: 50% of the contract Amount.
- d. The time based contract payment will be effected monthly upon submission of monthly progress report.



