i. School latrines, separate for girls and boys with urinals, hand washing facilities and incinerators to dispose of used sanitary pads. Where ever possible, the separated male/female latrine facilities should usually be located at two corners of the school compound.

ii. Health facility latrines, separate for women and men with urinals and hand washing facilities. Both the school and health facility facilities will have inclusive designs, addressing disability and gender inequality issues. In the health care centers, the programme, if required, will support (a) construction of incinerator ensuring compliance with effective waste reduction and waste segregation, and (b) construction of placenta burial pits for the disposal of placentas and other pathological wastes.

iii. Liquid waste/faecal sludge management (sludge drying beds) and public toilets. The scope of work for the Consulting firm in this regard will be to undertake feasibility studies, business plans, detail designs and ESIA studies for the liquid waste disposal facilities and for the public toilets.

The programme proposes to implement mainly new schemes and it is therefore assumed that meaningful access to safe water does not exist. The towns' water supply and sanitation coverage data will be updated after collecting the baseline data.

If resources permit, the KfW funded programme plans to provide WASH facilities to all schools and all health facilities in the selected towns as well as institutional (school and health institutions) WASH facilities in the selected satellite villages for use by school children, patients, caregivers and staff. Schools and health facilities will receive disability and gender/Menstrual Health and Hygiene (MHH) friendly designs as well as hand washing facilities close to all latrines and urinal blocks for use by men and women.

The designs used for toilets in institutions in the eight ONEWASH plus programme towns as well as the recently (2019) revised design and construction manual for WASH facilities in schools and health institutions[9] will be referred to during the design and construction phases.

More specifically, in designing and constructing school toilet facilities, the following minimum standards for school sanitation provided by the federal Ministry of Education (MoE) need to be adopted:

- *"Child-friendly" and inclusive*
- *Keep the latrine blocks for boys and girls physically separate by at least 20 m which should be constructed to face in opposite directions to each other*
- *Separate [two seats] latrine block for staff (one for female staff)*
- *One stand/cubicle per 50 girls for rural schools and one stand per 25 girls in capital city and city administration*
- *One stand/cubicle per 50 boys in capital city and city administrations*
- *One stand per 75 boys in rural schools*
- *One multiple use urinal in rural areas is equivalent to the per capita of the latrine block*
- *Single urinal uses in cities per 75 boys*
- *Hand washing basins/stations next to latrines and school feeding centers*
- *At least one toilet cubicle should be accessible for staff, boys and girls with disabilities, preferably one for females and one for males. This includes level or ramped access, wide*

[9]Design and Construction Manual for Water, Sanitation and Hygiene (WASH) Facilities in Preschools, Primary and secondary Schools in Ethiopia, Draft Final, Aug. 2018; The Federal Democratic Republic of Ethiopia, Ministry of Education (MoE).

door and sufficient space inside for a wheelchair user or helper to maneuver, and the provision of support structures such as a handrail and toilet seat.[10]

3 Objectives

The main objectives of this service agreement are to undertake:

In Phase I:

1. Feasibility assessments including groundwater resource assessment (site specific groundwater investigations and geophysical assessments) and preliminary designs in three small towns with selected adjoining satellite villages.
2. Detailed designs for the water supply, and sanitation facilities in institutions (health facility, school, public) for the recommended towns and satellite villages.
3. Production of related technical documents (drawings, bill of quantities and technical specifications) and final tender documents.
4. Business plans and water tariff structures.
5. Environmental and social impact assessments and associated management plan as per national legal requirements and as per international E&S standards as set out in Annex 1.
6. To augment the capacity building component, complete drawings, BOQs (including Health and Safety measures) and technical specifications shall be developed for each Town Water Utility as per the federal/regional Business Process Reengineering (BPR) standards

In Phase II:

7. Supervision of works in the three selected intervention towns and adjoining satellite villages.
8. As needed, provide technical assistance to the client bureaus based on the agreed unit rate (this may include advising the client in the evaluation of tenders).

4 Description of assignment / Specific Tasks

This assignment, regulated by a Contract over 40 months period, will be divided into two separate phases: Phase I, including feasibility studies, detail designs and tender documents and Phase II, covering supervision of construction works including during the defect liability period (DLP).

Start-up of Phase II activities depends on the successful completions of Phase I activities as per evaluation performed by UNICEF/Regional Government. The time gap between completion of phase I and startup of Phase II activities will be about six (4) months during which, the Consultant's continuous input is not required unless for some needed clarifications requested by the bidders while the Client/RWBs and UNICEF are finalizing procurement of Contractors' services (the tendering process).

Duration

A Contract over a 40-month period divided into two phases as follows:
Phase 1 (total duration 8 months)
Phase 2 (total duration 32 months) including 12 months defect liability period.

[10] Federal MoE, (October 2017), National School Water, Sanitation and Hygiene Implementation Guideline.

Following the abovementioned phased implementation approach, the specific tasks of the assignment are as follows:

4.1 Phase 1 (total duration of 8 months):

Tasks which need to be undertaken by the Consultant for three towns and up to 15 satellite villages in Phase 1

4.1.1. Technical feasibility studies with preliminary design studies for the water supply works[11] and sanitation in institutions targeted by the programme (mainly schools and health facilities) for each of the three towns and for up to 15 satellite villages adjacent to these three towns for a 10 years horizon (2020-2030). This work will be based on a *water demand study* with preliminary socio-economic surveys (see also section on the Affordability and Willingness to Pay studies) as well as on the assessment and needs of the existing sanitation facilities. The water supply and sanitation designs are expected to be climate resilient by for instance using innovative, resilient technologies (where appropriate using solar, wind, etc.) aimed at ensuring long term sustainability. The consulting firm will also take hydrological assessment results into consideration, provided by UNICEF or other partners, which will inform the design options. The Consulting firm will provide a feasibility study, for each town with its adjoining villages at least two relevant options with preliminary designs, a narrative, technical solutions, specifications and investment/long term operation cost estimates which contain solutions for abstraction of the water resource, storage, treatment and distribution of water and which are discussed in terms of their relevance, appropriateness, cost-effectiveness, environmental, financial, social and technical sustainability. An *Environmental and Social Scoping Study* will be conducted as part of the feasibility study.

The first step of this task is the identification of the satellite villages in each town. According to the preliminary criteria developed by UNICEF in consultation with local authorities to be considered under the programme, each satellite village should generally fulfil the following:

- Be within 10 Km radius from each of the selected small towns.
- Have history of climatic related hazards (drought, flood, disease outbreak, etc.).
- Not be under government villagization plan.
- Not be located on potential commercial farm land.
- Have livelihood related challenges.

As much as possible, an equal distribution of villages for each town should be observed and cost-effective and resilient technical solutions will be prioritized.

The tentative list of selected villages provided by the Consultant will be peer-reviewed by UNICEF in consultation with relevant partners and local authorities and therefore subject to change.

As a second step, a water demand assessment will be carried out, based on the review of existing studies and using the Central Statistical Agency (CSA) population extrapolations with a horizon of 10 years (2020-2030).

Once the water demand is established, the Consultant will produce a water resources assessment (maps and report, including hydrogeological conceptual models) for the water resources for the towns and satellite villages before entering in to the next step. The water and groundwater

[11] It must be noted that the construction works for the water supply will be merged with provision of both water supply and sanitation facilities for institutions (such as schools, health facilities, etc.) into a unique contract agreement.

resource assessment will be based on (i) a desk review and (ii) detailed site specific groundwater investigations including geophysical assessments for the selected sites where drilling will be required. The consultant shall present a unit price /cost for conducting the geophysical assessment based on the borehole depth in financial proposal.

The work should start from data collection and review of all available information (available maps, documents, reports, hydrometeorological data, well data, water quality data, geological settings, stakeholder maps, etc.). Background information should be gathered and collated by the Consultant. Conceptual hydrogeological models should be developed to complement data scarcity. Based on the desk review, the Consultant will identify the detailed study areas with the highest groundwater potential and close to priority population targets and will produce maps for each town detailing groundwater potential.

Following the desk review, detailed and site specific hydrological, hydrogeological and geophysical investigations will be conducted with the purpose of identifying the most suitable and climate resilient locations for water abstraction and / or for optimal borehole drilling. The investigations will include hydrological, hydrogeological and geophysical assessments where relevant (see ANNEX 1). The Consultant shall quote for a unit price for the geophysical assessment. The findings of water / groundwater resources assessment will inform the proposed options for water abstraction and for the water supply schemes. They will also inform the Environmental and Social Assessment and vice versa (see below).

During the Technical feasibility studies, at least two options will be explored according to the local conditions to ensure sustainable and climate resilient water supply facilities in the selected towns and satellite villages with preliminary designs for these two options. The design solutions will take into consideration the possibility of using of alternative energy sources, the adoption of suitable and sustainable technologies, an appropriate use of construction materials and the possibility of connecting the villages' water schemes with the network of the targeted towns. Rehabilitation of existing infrastructures should also be taken into consideration as well as the development of multi-purpose facilities (e.g. use of water for drinking and household gardening purposes, recuperation and reuse of grey water).

The water supply options to be proposed will clearly present preliminary designs (drawings, technical specifications) and cost estimates for:

- Water sources and water abstraction facilities (including geophysics inspections where required)
- Intake structures
- Treatment works
- Pressure main and distribution system
- Storage reservoirs, pressure break tanks
- Water distribution points (kiosks, water points, hydrant if required)
- Energy requirement options (national power mains, generators, solar or a combination of any of the three sources) and related electromechanical solutions
- Access roads
- Ancillary buildings and any additional civil works if required

The sanitation options to be proposed will clearly present preliminary designs (drawings, technical specifications) and cost estimates for:

a. Child friendly designs (including technical specifications and BoQs) for separate latrine blocks for girls and boys including disability friendly cubicles (for both) and urinals (for boys) in each of the targeted schools.
b. Patient friendly incorporating disability friendly designs (including technical specifications and BoQs) for separate latrine blocks with urinals for women and men in targeted health facilities.
c. User friendly designs incorporating disability responsive toilet cubicles and shower facilities (including technical specifications and BoQs) for separate latrine cubicles and urinals for women and men in targeted public latrines.
d. Designs (including technical specifications and BoQs) for hand washing facilities close to/within all latrines and urinal blocks in schools, health facilities and public toilets.
e. Liquid waste services including identification of final disposal sites for liquid wastes (from septic tanks and latrines) and treatment options for faecal sludge (sludge drying beds), including production of compost and co-compost.
f. Medical waste management, incinerators for the risk wastes, collection systems for the health facilities.

Following submission of the feasibility and preliminary design studies, UNICEF, in consultation with relevant partners, will select the most suitable option for each town/adjoining village. The selection will be concluded within four weeks following submission of the feasibility and preliminary design studies; if additional information is required to allow for selecting the most suitable option, UNICEF will conclude the selection within four weeks after receiving the additional information. Detailed design studies and tender documents will be developed for the most suitable option only.

4.1.2. Detailed design studies with tender documents for the water supply works and institutional sanitation works[12] for each of the three towns/adjoining villages. The Consultant will produce, for the most suitable option, a detailed design study for each town/adjoining satellite village for the water supply and sanitation (sludge drying beds) including institutional sanitation solutions for public schools, public health facilities and public toilets in the three towns. The detailed design study will include detailed drawings, technical specifications, bills of quantities (BoQ) and confidential cost estimates for improvement work of intake/source/water abstraction infrastructure, treatment, storage and distribution works including hydraulic designs, civil works and nodes – pressure lines and completed distribution networks (on the basis of the topographic survey). House connections and outlets to be provided for each of the three towns (up to 5 water kiosks per town depending on the size of the town) as well as connections to all government institutions (schools, health clinics, other government institutions); meters/inspection chambers to be included. The final layout will clearly indicate the different pressure zones of the distribution networks. The Consultant will prepare the BoQ, technical specifications and confidential cost estimates of the supplies which are expected to be procured outside of the works contracts separately (e.g. off-shore supplies); the list of these supplies will be provided by the UNICEF. These supplies will be excluded of the contractors tender documents.

4.1.3. A business plan will be developed for each town/adjoining village, informed by a study on Affordability and Willingness to Pay (WTP), and should be based on the principle of cost recovery and be developed in coordination with the Water Resources Development Fund (WRDF). Related to this business plan, (pro-poor) tariff setting will be proposed for the selected three towns and

[12] The construction works for the water supply will be merged with provision of both water supply and sanitation facilities for institutions (such as schools, health facilities, etc.) into a unique contract agreement.

adjoining villages. This plan should also include the development of facilities and solutions for managing liquid waste (specifically faecal sludge from septic tanks and latrines from the institutions targeted by the programme) and health care waste on sustainable and affordable basis. They will also include business plan models to define appropriate financing solutions for the operation and maintenance of the water and sanitation facilities that are to be developed. This task is detailed in ANNEX 2.

4.1.4. Based on the Environmental and Social Scoping Study developed as part of the feasibility study, focused **Environmental and Social Impact Assessments (ESIA) will be undertaken** and **Environmental and Social Management Plans (ESMP)** will be developed for the water supply and sanitation (institutional and faecal sludge management) interventions in each of the sites[13]. The Consultant will assess and predict the anticipated negative and positive effects of the planned/implemented project on the environment and socioeconomic baseline using a robust and consistent qualitative or semi-quantitative methodology to assess the impacts and identify major, moderate, minor and negligible impacts. The *ESIA* will be focused on specific sites and the best option and inform site specific *ESMP*. The ESIA will be carried out in line with the Environmental Impact Assessment Proclamation (Proclamation No. 299 of 2002) and detailed in the "Environmental Impact Assessment Procedural Guidelines Series 1" of November 2003 (As per Schedule I of the Guideline for water supply) and in line with the international environmental and social standards as listed in Annex 3. For detailed Terms of References and required qualification of the ESIA Team see ANNEX 3.

Based on continuous dialogue between the technical team and the ESIA team during the feasibility and the detailed design studies, findings with environmental and social concerns will be incorporated into the ESIA and relevant findings of the ESIA will feed into the technical designs, including any recommendations for minimization of negative impacts by design changes. In this context, recommendations from the ESIA team to the technical team may be related to but will not be limited to the following aspects.

a. Check water sources for quality to confirm water quality standards and recommend water treatment options as deemed necessary.
b. Check water sources for safe yield and impact on surrounding water sources. During sub project preparation, the safe yield and potential drawdown of water levels near the water facilities will be checked to confirm that the proposed water source is sustainable and will not adversely affect nearby wells.
c. Check contamination that may occur due to construction of intake structures.
d. Check set back from water sources to excreta disposal facilities.
e. Check wastewater that is generated from the water supply systems which may produce muddy pathways and standing pools of water where mosquitoes breed.
f. Check erosion and loss of vegetation from the construction, pumping stations, pipelines and storage tanks.
g. Check different functional components of sanitation facilities including liquid waste management facilities and assess them for possible environmental impacts including siting of the faecal sludge management (sludge drying beds).
h. any social risks resulting from the siting of specific infrastructure (in terms of intra- and inter community conflicts over access to water)
i. any risks and potential impacts resulting from land take for different project components (discussing alternatives to avoid displacement)

[13] It must be noted that the construction contractors will develop their own construction ESMP, based on the project ESMP which will be monitored by the Consultant.

The technical team shall integrate the issues raised/recommendations provided by the ESIA team into their activities in the course of planning for the design of the projects, with the overall objective to apply all options to improve designs in order to avoid negative impacts on the environment and on people.

4.1.5. Tender documents will be developed for construction of water supply systems and for water and sanitation facilities in institutions including faecal sludge management facilities. These tender documents providing turnkey solutions should also include "Build, Capacity Build and Transfer"[14], also called BCBT, contractual arrangements for Urban Water Supply and sanitation systems. The capacity building component associated with the works will focus on "post-construction capacity building to service providers" only. The post construction support to the utility, regulated by defined performance indicators, will mainly focus on operation and maintenance activities of the newly constructed systems. The other major packages of the capacity building support will be provided via Institutional Contract for Capacity Development to TWUs and Water Boards through Service Agreement (SA6). The scope of the BCBT work is as detailed in ANNEX 4.

The tender documents should be organized in three tenders (lots) – one for each town – with a provision allowing tenderers to bid for one or more lots at a time.

The format of the bidding documents will follow World Bank format and will be in line with national guidelines. The content of the bidding documents will at least include sections on instructions to bidders and data sheet; evaluation and qualification criteria; bidding forms; general conditions; and particular conditions. Tender documents should include bills of quantities, technical specifications and drawings.

The consultant will prepare specifications for the works and equipment. In this context, the consultant will (a) Tailor the Standard Environment, Social (including issues of sexual exploitation and abuse and gender-based violence), Health and Safety (including security for personnel) (ESHS)[15] Works Requirements to the specific contract requirements; (b) Include costs for staff, measures and works related to the implementation of required ESHS measures in the overall cost estimation and in the BoQs[16].

Drawings should be provided in a separate volume, with drawings using suitable scale. The size of the volume will be dictated by the scale of the drawings. The scale of the drawings needs to be chosen according to degree of detail to be displayed in order to avoid any misunderstandings. In case A3 print outs are needed drawings can be arranged in a way to print the needed scale on A3 format. To the extent possible, drawings should be presented in a bound A3 format, to facilitate reproduction. The scale must not be reduced to the extent that details are rendered illegible.

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[14] The BCBT contract arrangement of the contractor provides, apart from the delivery of works, support to local administration and town utilities on capacity building, training and technical backup for the operation, maintenance and monitoring of the provided facilities and equipment.

[15] ESHS risk levels are typically categorized as "B" for basic, "E" for elevated, "H" for high ESHS risk level or "n/a" if not applicable and "NE", if an ESIA/ESMP is not yet available. The ESHS risk level of a specific Contract is not necessarily identical with the Environmental and Social risk category of the whole project/programme. The level at project appraisal may be indicative and finalised when preparing the Tender Documents for the Contract.

[16] As appropriate, this may include ESHS supervisors and managers, ESHS liaison officers in charge of relations with external stakeholders and project affected people, equipment related to ESHS tasks (e.g. for transport, computers, communication).

Drawing books should contain general situation plans (overlaid on satellite image background) in relation to local geography; longitudinal profiles and plan views - including natural terrain, pipe, piezometric lines, depths and possible air passages, hydraulic calculation results (showing diameter and nominal pressure of pipes, velocities, losses of charges, etc.); Piping and instrumentation diagrams (P&ID) will be provided according to ISO 10628; diagram of operation and the detail of the nodes; drawings and plans of civil engineering works.

Where maps are used, all units will be using the metric system, elevations will be in meters above sea level with the WGS 84 datum, and the coordinate system will be UTM Zone 37N.

The Consultant will provide support in awarding Construction contracts through provision of as needed technical assistance/advice for evaluation of bids and contract negotiations with regards to technical, financial and ESHS aspects as defined in Sustainability Guidelines elaborated by KfW elaborated, in line with relevant World Bank/IFC guidance.[17] Review of the BoQ, budgets/cost estimates received from bidders.

4.2 Phase 2 (total duration 32 months)

Supervision of construction works (water supply and institutional sanitation facilities) will be undertaken both at the town and satellite village levels with a total expected duration for each site of 16 -20 months[18].

- ➔ *Supervision of Water Works* will focus on small towns' resilient water supplies and in up to 15 satellite villages.
- ➔ *Supervision of Sanitation Works will focus on institutional (school, health facility and public) latrine facilities in 3 towns and in up to 15 satellite villages. In line with the technical designs, BoQs and technical specifications provided, complete engineering services and contract management will be provided for related construction activities, in consultation with UNICEF.*

The supervising consultant will be fully responsible for monitoring and inspecting of construction activities for all works and capacity building contracts and will ensure that work is carried out in accordance with relevant construction and capacity building contracts. The Consultant will also ensure, as far as possible, that the construction plant and personnel provided and used by the Contractors are adequate to construct the works and comply with proposals accepted.

The Consultant will ensure that quality control requirements of the contracts are satisfied, that the quality of materials and workmanship conforms to the specifications of construction contracts.

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[17] This includes the assessment of the Bidder's proposed ESHS Methodology, Management Strategies and Implementation Plans, the suitability of the Code of Conduct as well as the availability of suitably qualified ESHS specialists among their key personnel and their references, required to manage the key ESHS risks of the Programme. The consultant will check that all relevant ESHS aspects are duly covered in the Contract. Furthermore, the Consultant will ensure that "the Contractor shall not commence any Works unless the Consultant is satisfied that appropriate measures are in place to address ESHS risks and impacts". See https://www.kfw-entwicklungsbank.de/PDF/Download-Center/PDF-Dokumente-Richtlinien/Vergaberichtlinien-2019-Englisch-Internet_2.pdf and World Bank Guidance on ESHS in procurement.

[18] The total duration of this component is an estimation based on average time to complete similar construction activities in the Country. A more detailed schedule will be availed once construction contracts are awarded. A maximum timeframe of 20 months is given for the completion of construction activities and related supervision, considering that works may not commence simultaneously in all the towns.

For achieving the specified construction supervision services, the Consultant will, in the event that any work is behind programme, consult with the Contractor, UNICEF and the Client (RWB) to arrange for the necessary modifications to the programme or working method such that the contractual completion date can be achieved and issuing of the necessary instructions to achieve these goals.

The Consultant will carry out the following major tasks and bear responsibilities amongst others:

- Contract administration and management; control and preliminary acceptance of Contractor's requests of payments as well as production of documentation required by UNICEF to effect Direct Payments for works.
- Complete engineering services related to construction supervision and contract management for the selected projects in the 3 towns and adjacent satellite villages.
- Supervising all operations on behalf of the UNICEF and the Client (RWBs) to ensure that the work of the Contractors is carried out professionally and timely and in accordance with the contract documents.
- Documenting Contractor's non-conformances;
- Monitoring of the endorsed Construction ESMP to be established by the contractor, based on the ESMP (as part of the ESIA).
- Monitor and document the implementation of the ESHS implementation by the Contractor.
- Undertaking full-time drilling on site supervision of boreholes, development and pumping tests and construction of appropriate protection and drainage structures.
- Preparation of detailed schedule for construction supervision in details taking the time frame set for the duration of the works.
- Physical inspection and testing of material and equipment at project site and before installation.
- Revision of technical designs and BoQs, addition and omission and working schedule upon request from UNICEF and the Client.
- Approval of commissioning procedures and inspection of completed works.
- Instructions to the Contractor to control the fulfillment of the contractor's duties from the approval of the work program up to completion of the works.
- The Consultant will be responsible for the valuation and certification of the volume of works done as per the schedule rates indicated in the BoQ upon completion – initial and substantial completion.
- The Consultant will inspect and approve utilization of essential equipment and material supplies appropriate for the construction and improvement of existing facilities to ensure to ensure the required deliverable are achieved within the set timelines. This will ensure that time is not wasted just before commencement of works because incorrect material have been mobilized.
- The Consultant will guide the implementation in relation to quality of work and issue necessary instructions and approvals. Ensure that all operations are performed in a professional manner and the best of workmanship in accordance with the relevant clauses in the contract.
- Check if the Contractor provides instructions and trainings to workers, Subcontractors and Suppliers to assure that they understand their respective Environment, Social, Health and Safety requirements and that the Contractor complies with the Code of Conduct

- Follow-up on the results of any inspections or audits by labour, health and safety or environmental regulatory authorities.
- It is the responsibility of the Consultant to call and organize management or site meetings necessary for the review of progress, challenges and as well providing recommendation for improvements. Also, participate in scheduled meetings as requested by the Client or the contractor, and prepare minutes of meeting.
- Verify works jointly with relevant government personnel, with issue of Certificate of Substantial Completion and Certificate of Final Inspection either side of the Defects Liability Period / guarantee period (12 months) and arrange for/supervise correction of the defects, if any, by the contractor(s).
- Review of, and, following UNICEF's approval, endorse the Contractor's proposals for remedial action/s and their timeframe for implementation; follow-op on correction of remediations before and during the defects liability period.
- Prepare working drawings as may be required.
- Upon completion of the project i.e. expiry of Defects Liability Period, the Consultant will prepare and design *As Built Drawings* in hard and electronic copies of the works provided and improved upon by the project. The drawings will be prepared in three copies and handed over to beneficiary government institutions and UNICEF.
- Carry out other relevant duties which are essential for effective implementation and quality assurance of the works planned under the Programme.
- As needed, provide technical assistance to the client bureaus based on the agreed unit rate.

Consulting reporting and management responsibilities:

- Keeping a Supervisors logbook with daily entries of all pertinent operations, events and measurements.
- Supervise the onsite measurements, sampling and testing of water quality. Note that water quality testing is the responsibility of the Contractor.
- Complete all supervision forms on site and make sure that the contractor and the supervisor sign the document including but not limited to Borehole Construction Report; Development Form; Pumping test Form; Civil Works Supervision Form.
- At regular intervals inspect the contractors base camp, the set up and all stored materials and satisfy himself that materials and storage conditions are appropriate and according to the contract. Upon abandonment of camp ensure that contractors' cleaning up of site is satisfactory.
- Approve the Drilling Contractor's reports and statements for work done.
- Prepare Certificate of Completion of Works
- Verify and endorse payment certificates. Prepare interim payment certificates and draft variation orders for approval, where applicable.
- Monthly reporting to UNICEF as per formats provided.

Logistics for the Consultant' team:

- The consultant is expected to provide camping gear for supervision staff to ensure that field operation can be conducted in comfort and that a mobile means of powering electronic equipment is provided by a generator or deep cycle battery.
- The Consultant will provide his own means of transport for the work.

5 Roles and responsibilities of the Consultant, the Client and UNICEF

The ***Common arrangements and mutual and individual responsibilities for the Parties involved*** - which are the Consultant, the Client and UNICEF - will be agreed upon at the signing of the contract and annexed to the signed contract or in the form of a tripartite Memorandum of Understanding. This annex will provide detailed information on the following topics:

(1) the payment certification mechanism;
(2) the roles and responsibilities of the Client (regional Water Bureau);
(3) the roles and responsibilities of the Consultant;
(4) the roles and responsibilities of UNICEF

Communication:

(1) Wherever the contract provides for giving or issuing approvals, certificates, consents, determinations, requests or notices, these communications shall be delivered in writing through agreed systems (be it electronic or not). Approvals, certificates, consents and determinations will not be unreasonably delayed or withheld.
(2) For any communications among the Parties, all Parties will be copied.
(3) All communication between the Consultant and the Contractor or the Client will be in writing and UNICEF will be copied.

The Consultant is entrusted and authorized with clarifying and instructing in cases of ambiguities or discrepancies. The Contractor will take instructions from the Consultant.

The communication lines will be detailed as part of the *Common arrangements and mutual and individual responsibilities for the parties involved* annexed to the contract.

Implementation strategy for the feasibility study, design and Supervision Contract:

UNICEF will manage the programme and will work closely with federal, regional, woreda and town level government functionaries. Specialized inputs will be gauged from private sector, Civil Society Organisations and academic institutions through different service-agreements. Service Provision Agreement 1, the "Consultancy contract for feasibility studies and associated design of infrastructures and supervision of works", is one of these service-agreements.

In respect of the Service Provision Agreement 1 Contract, UNICEF Ethiopia Country Office (WASH Section) based in Addis Ababa will have one contract with a local/Ethiopian Consulting firm for activities in the two (Oromia and SNNP) Regions. The Consulting firm will undertake the feasibility studies in the two regions parallelly by deploying adequate and skilled human resources as stipulated in the relevant chapter of this TOR. The Consulting firm's team arrangements should be according to the following modalities:

1. First team responsible for the consultancy services in Bidre town of Oromia Region
2. A second team responsible for services in Bulle and Doyo Gena towns of SNNP Region

6 Methodology

Data regarding previous water supply and sanitation related studies conducted on each town should be collected at national, regional, woreda and municipal/town levels. It is suggested that the Consultants consult with key institutions such as Federal Ministries of Water, Irrigation and Energy, Health, Education and Urban Development and Housing, Water Resources Development Fund, Environmental Protection Authority; Regional Bureaus of Water, Health,

Education and Urban Development and Housing; Woreda Sector Offices (Administration, Water, Health, Education, Municipality and Town Water Utility); relevant partners which are involved in water supply projects, populations projections and mapping.

All the activities will be undertaken based on the Government of Ethiopia's policies, norms, and regulations for water supply and sanitation in urban and rural areas, as well as good practices according to international standards.

Demographic and economic growth, including population projections and water consumption will consider the growth potential that presents the increase in economic and commercial activity that is expected over the planning years (design period) due to growth in Agricultural development in the area, which in turn is expected to bring increased migration.

7 Expected Deliverables and Payment Terms

The consultancy firm is expected to produce the following deliverables which after approval will be linked to payments as shown in Table 3 below.

PHASE 1: Feasibility Studies, Detail Designs, ESIAs, ESMMPs (8 months duration)

Table 3: Deliverables for Water Supply and Sanitation Feasibility Studies, Detail Designs and ESIAs/ESMMPs for each site (Considering start up time is Sept. 2nd, 2019).

Activity	Deliverable	Timing (tentative)	Linked Payment	# of Copies
1	Inception Report with Technical Field Survey Form	Week 2 after signing Contract ***(Mid-Sept. 2019)***	20%	4
2	Presentation to stakeholders of **draft Reports of Town Feasibility Studies and Environmental and Social Scoping Study**; for each town: • Feasibility study and preliminary design reports and Sanitation Master Plans • Environmental and Social Scoping Study and for both implementation of sanitation and water supply option/*s • Draft Affordability and Willingness to Pay analysis, Business Plans and tariff schemes for each town	Feasibility studies with preliminary designs to be presented 3 months after approval of inception report *(+ 4 more weeks to review and give feedback by UNICEF)* ***Mid-January 2020)***	20%	4
3	*Following review and selection of the most suitable option for each town/adjoining village*: One (1) detailed design and costed water supply option developed for each of the 3 towns with adjoining villages which includes: • Groundwater assessment report • Drawings, technical specifications bills of quantities and cost estimates for all works • Willingness and ability to pay analysis	Draft report 3 months after selection of the most suitable option *(+ 1 more month for review and selection of most suitable option)* ***Mid-May 2020***	30%	4

	• Business plan and tariff schemes • ESIA/ESMMP • Tender documents (using world bank template and in line with national guidelines			
4	• Upon KFW/UNICEF/RWBs' approval of items in point no. 2, present final and completed feasibility studies and detailed designs[19]	***Mid-June 2020*** *1 month after mid-May for KfW/ UNICEF/ RWB review & approval of final designs/TDs*	30%	4

PHASE 2. Supervision of construction activities (total duration 32 months, including 12 months defect liability period)

Payments for phase II activities will be made on a monthly basis following submission of satisfactory monthly reports (showing progress of contracts) and approval of the same. To be mutually agreed based on unit costs and level of effort by consultant[20].

It may be noted that a ten percent (10%) retention will be applied to each of the payment and for all phases. The retention will be released following conclusion of the contract. For Phase-3 works, the retention will be released after the completion of the works related to the defect liability period.

Start-up of Phase 2 activities depends on the successful completion of Phase 1 activities as per evaluation performed by UNICEF/Regional government. The time gap between completion of phase I and startup of Phase II activities will be about four (4) months during which, the Consultant's input is not required unless for some needed clarifications requested by the bidders while the Client/RWBs and UNICEF are finalizing procurement of Contractors' services (the tendering process).

All deliverables are to be presented in English in digital and hard copy formats.

7. Reporting

As per the above deliverables plan; to the Urban WASH Manager based in Addis Ababa and to the Chiefs of UNICEF Oromia and Southern Region Field Offices based in Addis Ababa and Hawassa respectively.

8 Management, organization and time schedule:

The contract will be issued by UNICEF Ethiopia. The Focal Person for all communications is the UNICEF Urban WASH Manager based in Addis Ababa. The consultant will liaise with UNICEF for any matters regarding the study.

The Lead Consultancy firm for the assignment (feasibility study, detail design, business plan, ESIA/ESMMP and works supervision) will identify a Team Leader who will supervise completion of the tasks and the timely submission of the deliverables as listed above.

[19] The detailed designs produced by the consultancy firm will be subject to UNICEF-KfW-RWB revision before approval.

[20] The remuneration basis should be based on either the Consultant's estimation of the work involved following agreed rates with the UNICEF or based on percentage of the cost of the completed works.

For the ESIA study, the firm will ensure that the proposed expert(s) for the environmental and social impact assessment possess extensive experience in conducting similar activities. UNICEF will undertake a separate and thorough evaluation of the skills and experiences of the proposed staff. The proposed expert(s) for conducting the ESIA should have:

- A minimum of 10 years' experience conducting ESIA in the WASH sector in Sub-Saharan Africa.
- Considerable experience in providing technical quality assurance on ESIA.
- Extensive experience in conducting ESIA in the WASH sector in Ethiopia.

The Team Leader will seek inputs from and regularly liaises with the UNICEF Urban WASH Manager and any relevant partner (as per requirement) for all important matters related to the assignment throughout the period of its implementation. UNICEF will facilitate contacts with the local authorities and institutions in the towns to share information on the activities carried out as part of the assignment.

The total time given for completion of the Phase I and Phase II activities is 40 months. The duration of each task within the assignment is detailed in table 3 above. The starting date for this assignment shall be no later than -September 2nd, 2019.

Technical proposal must include detailed time schedules for deployment of required inputs for the consultancy services.

Financial proposal must be presented as per attached formats.

The Consultant should take in to consideration that its proposed team will be available during the assignment. This assignment requires a 100% presence of the Team Leader and the other experts for their respective inputs during the duration of their deployment. The Team leader can be be the same for both assignments in the three intervention towns of the two regions. The proposed time schedule of experts' inputs should reflect this condition and be in line with the following requirements:

The Teams for each region undertaking the ***feasibilities studies***, ***detail designs, ESIAs and works supervision*** should be comprised as a minimum of the following key experts:

a) The (regional) Team/s for ***feasibilities studies, detail designs and ESIAs*** should be comprised as a minimum of the following key experts. The staff requirements for the ESIA are outlined separately in Annex 1

No.	Expert	Intensity of Inputs[21]
1	Principal Team Leader - Senior Water Supply and Sanitation Specialist	***
2	Water/Civil Engineer;	***
3	Sanitation (institutional) - management expert	***
4	Hydrogeologist	**
5	Socio Economic Expert	**
6	Topographic Surveyor	**
7	Electro-mechanical Engineer	**

[21] *** High; ** Medium; * Limited

b) The (regional) Team/s for ***Supervision of Works*** should be comprised as minimum of the following key experts:

Expert	Intensity of Inputs
Team Leader - Senior Sanitation and Water Supply Specialist	***
Resident Engineer – Water Supply/Civil Engineer (one RE per site)	***
Electro-mechanical Engineer (where required)	**
Sanitation expert / engineer	**
Hydrogeologist	**
Structural engineer	*
Surveyor	*
Socio Economic Expert	*

The same expert can be proposed for two distinct positions if he/she possesses the required qualifications and experience. This should be clearly indicated in the proposal.

The Consultant must take into consideration that the above assignment requires a simultaneous deployment of experts in the targeted sites of the two regions. This should be properly reflected in the proposals.

The consultancy firm will also ensure that specific technical knowledge is available within the team. The employment of additional support team can be proposed.

The Team Leader should be able to communicate in English and allocate 100% of his/her time to the assignment. The rest of the team may be partially allocated to the assignment depending on when they are needed.

9 Expected background and Experience

9.1 Guidance for Institutional Contracts

Firms should demonstrate that they can meet the following requirements:

- Have the capacity to put together a professional team able to carry out feasibility studies, detail designs and construction supervision with similar complexity; and have previous experience in Ethiopia or in other Sub Saharan and/or developing countries
- Company with at least ten years of relevant experience in design and construction supervision of similar WASH works and contract management
- Experience of working in Ethiopia is a strong added value
- For each site, all members of the team should have excellent English writing/communication skills. The Consultant should take into consideration, according to the specific areas of intervention, the necessity of communicating in regional languages (Amharic, Oromiffa).
    - The principal team leader should be a Water and Sanitation Specialist or other relevant field, expert in urban water supply and sanitation systems in small-medium towns; he/she should possess experience (10 years minimum) in coordinating and participation in similar assignments.

- Water/Civil Engineer, with a minimum of 10 years of experience in urban water supply works;
- Sanitation Expert with a minimum of 10 years of experience in liquid and solid waste management and facilities design/construction in urban contexts.
- Environmental Management expert or relevant field, with a minimum of 10 years of experience in studies related to urban WaSH infrastructures development. He/she should be a certified environmental assessor by any known/recognized EPA.
- Socio-economist with a minimum of 10 years of experience in WTP studies and development of business plans for water supply and sanitation infrastructures, water and sanitation tariff setting for urban contexts and willingness and capacity to pay analysis.
- Surveyor with a minimum of 10 years of experience in similar assignments.

- The exact location of the selected towns is detailed in Table 1 – towns' name, woreda (district), zone and region. Up to 15 satellite villages will be identified, according to detailed criteria, within a radius of 10 Km from the selected towns.
- The Consultant must be aware of the conditions of each site/region of intervention. In some circumstances, security and logistic arrangements are required. Therefore, in presenting proposals, bidders should take these elements into thoughtful consideration. UNICEF is not responsible for any unexpected additional cost or arrangement required during the implementation of the assignment.

9.2 Bidding Proposals

Separate Technical and Financial proposals should be submitted in sealed envelopes for the proposed assignment. Evaluation will be done based on a 70 % technical and 30% financial criteria.

The Technical Proposal must be written in English (four/4 hardcopies and one/1 digital copy) and will include at least:

- The methodology in the form of a concise proposal including time schedule, data collection tools, description of the team with brief note on the role of each team member, quality assurance and control;
- CVs of the proposed key personnel, including the list of relevant experience signed by the professional and his representative and a confirmation of availability for the assignment period)[22];
- The detailed framework of the necessary logistical arrangements, concerning the transport to/from and within the town;
- Organizational background and list of relevant assignments carried out by the firm;
- Evaluation reference letters / completion certificates from previous related works carried out by the consultant to credible national and international organizations for similar work;
- Copies of relevant documents proving the organization's registration in Ethiopia as well as of any other relevant legal document.

The financial proposal should present the period which the technical staff will need to implement the Contract, as per attached template, supported by a timetable showing the time during which each professional will be involved in the Contract (clearly indicating inputs in the office and field.

[22] Any forged CV will result in automatic disqualification.

The Financial Proposal will be presented in ETB and include details of all the inherent costs of the consultancy as per attached template.

It's responsibility of the bidder to include, within the financial proposal, all related taxes. The bidder is solely responsible for paying any taxes occurring during this assignment.

The contract signed with the successful bidder will include a disbursement plan for instalments linked to the handover of deliverables to UNICEF. Payments will be made according to what is stated in paragraph/chapter 6.

Only bids that fully satisfy the ToR requirements and that demonstrate the capacity of the consultant/consultancy firm to deliver high quality study will be considered.

The lack of any of the above-mentioned documents in the bidding proposals may result in the disqualification of the bidding company.

Separate Technical and Financial proposals should be submitted in sealed envelopes for each phase (1 & 2) activities. Evaluation will be done based on a 70 % technical and 30% financial criteria. The criterion to be used for the evaluation of technical proposals is outlined in the below table:

10 Policy both parties should be aware of:

- Under the consultancy agreements, a month is defined as 21 working days, and fees are prorated accordingly. Consultants are not paid for weekends or public holidays.
- Consultants are not entitled to payment of overtime. All remuneration must be within the contract agreement.
- No contract may commence unless the contract is signed by both UNICEF and the consultant or Contractor.
- Consultants will not have supervisory responsibilities or authority on UNICEF budget.
- Consultant will be required to sign the Health statement for consultants/Individual Contractor prior to taking up the assignment, and to document that they have appropriate health insurance, including Medical Evacuation.

The table below indicates the standard UNICEF guidance for conditions of work in which the consultancy will be carried out.

Table 6: Standard UNICEF guidance for conditions of work

Condition of work	To be provided by UNICEF		Remark
Field trip transport		No	
DSA		No	
Accidental Death and Dismemberment and accident medical coverage		No	
Health insurance		No	
Office space		No	
Computer		No	
Secretarial services		No	
Photocopier services		No	
Other supplies		No	

ANNEX – C

Evaluation Criteria of Technical Proposal

Category	Maximum Points	Minimum Points
1. OVERALL RESPONSE *Understanding of, and responsiveness to, UNICEF Ethiopia Office requirements; *Understanding of scope, objectives and completeness of response; *Overall concord between UNICEF requirements and the proposal.	(5)	(3)
2. METHODOLOGY *Quality of the proposed approach and methodology; *Quality of proposed implementation plan, i.e how the bidder will undertake each task, and time-schedules; *Risk assessment - recognition of the risks/peripheral problems and methods to prevent and manage risks/peripheral problems.	(25)	(18)
3. PROPOSED TEAM and ORGANISATIONAL CAPACITY * Team leader: Relevant experience, qualifications, and position with firm; * Team members - Relevant experience, skills & competencies; * Organization of the team and roles & responsibilities; * Professional expertise, knowledge and experience with similar projects, contracts, clients and consulting assignments (completion certificates to be provided);	(25)	(19)
4. PROPOSED TEAM and ORGANISATIONAL CAPACITY for ESIA/ESMP * Team leader: Relevant experience, qualifications, and position with firm; * Team members - Relevant experience, skills & competencies; * Organization of the team and roles & responsibilities; * Professional expertise, knowledge and experience with similar projects, contracts, clients and consulting assignments (completion certificates to be provided);	(15)	(10)
TOTAL MARKS FOR TECHNICAL COMPONENT	**70**[1]	**(49)**
4. FINANCIAL PROPOSAL – PRICE Full points are allocated to the lowest priced proposal. The financial scores of the other proposals will be in inverse proportion to the lowest price.	**30**[2]	**N/A**
TOTAL MARKS	**100**	

[1] For this RFP, the **Technical Proposal** has a total weighting of **[70%]**. Bidders must score a minimum of 49 points to be considered technically compliant and in order for the Financial Proposals to be opened

[2] For this RFP, the **Financial Proposal** has a total weighting of **[30%]**.

ANNEX-D

TECHNICAL PROPOSAL - CONTENT & FORMAT

Please note that the format presented in Annex B is a guiding format. Bidders are allowed to use their own format during proposal preparation and are not limited to with this format.

The Technical Proposal

The technical proposal of the bidders should contain the following minimum information.
The Technical proposal comprises of four (4) key components background, technical approach, methodology and business plan /work plan and economic capacity. Bidders are urged to present their proposals using the suggested subtitles. UNICEF welcomes new ideas and innovative approaches therefore Bidders are also free to provide, any other information that they deem fit and relevant in support of their bid or solution.

1. Background

1.1 Contractor's company/firm

In this section the contractor should highlight about their company, how it is organised (organisation structure), its capability and a brief about its key personnel.

1.2 Contractor's Experience

a) In this section, list maximum 10 names of the clients for whom the contractor has undertaken similar assignments along with the name of the contact person and contact details of its clients.

b) Out of the above list, provide information of 3-5 assignments for which your company and your company's personnel were legally contracted as a corporate entity or as one of the major companies within an association, for carrying out consulting services similar to the ones requested under this assignment. You can either use the format specified in **Annex-C** or provide all the information in your own format with accompanying CD for sample work.

2. Description of the Approach, Methodology and Work Plan

2.1 Technical Approach and Methodology.

In this chapter you should explain your understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

2.2 **Quality Assurance.**

The proposal should include the bidder's plan or program for the systematic monitoring and evaluation of the various aspects of the project to ensure that standards of quality are being met.

3. Business Plan or Work plan

3.1 Business Plan or Work plan

In this chapter the bidder produce a comprehensive Business Plan /Work plan to deliver the overall requirement (ToR). This will include the main activities of the assignment, their content and duration, phasing and interrelations, milestones, key performance indicators (including interim approvals by the Client), and a list of deliverables (reports, drawings, activities) with the estimated delivery dates.
The proposed business plan or work plan should be consistent with the technical approach and methodology, showing understanding of the ToR. This should also be inclusive of the level of effort for each team member and explicitly lay out staff input throughout various stages/components.

The plan MUST identify and present specific steps, components activities in a chronological manner ensuring that quantity is presented clearly, and MUST have attached, a flow chart/ Critical Path Analysis/, Activity Plans etc.

3.2 Organization and staffing of the team for this assignment.

In this chapter you should propose the structure and composition of your team which will be deployed for this assignment. You should list the main disciplines of the assignment, the key expert responsible and proposed technical and support staff along with their curriculum vitae (CVs). It is desirable that the majority of the key professional staff are permanent employees of the bidder or have an extended and stable working relationship with the bidder. You should also list all the main equipment to be used in the production and post production stages of an assignment located in your organization.

Team composition and tasks assigned. Please provide the details as per the following:

Name of Expert	Area of expertise / Qualification	Position Assigned	No. of days of Input	Firm	Task Assigned

4. Economic and Financial Capacity

Bidders must also provide proof of their economic and financial capacity by enclosing with their bid the one or more of the following documents:-

i) Appropriate statements from banks;
ii) Most recent audited financial statement;
iii) Balance sheets or extracts from balance sheets for at least the last two years for which accounts have been closed;
iv) A statement of overall turnover concerning the services covered by the contract during the last three financial years.

The Technical Proposal should not contain any price / cost information

ANNEX-E

CONTRACTOR'S EXPERIENCE – FORMAT

Please note that the format presented in Annex E is a guiding format. Bidders are allowed to use their own format during proposal preparation and are not limited to with this format.

Assignment name:	Country: Location within country:
Name of Client:	Address:
Duration of assignment (months): Start date (month/year): Completion date (month/year):	Total Nº of staff-months of the assignment:
Approx. value of the contract (in current US$):	Approx. value of the services provided by your firm under the contract (in current US$):
Name of associated Contractors, if any:	Nº of professional staff-months provided by associated Contractors:
Name of associated Contractors, if any:	Name of senior professional staff of your firm involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader etc):
Narrative description of Project:	
Online link to the assignment (if available) :	
Description of actual services provided by your staff within the assignment:	

ANNEX-F

CHECK LIST

Checklist for submission of proposals

☐ Bid form filled in and signed

☐ Envelope for technical proposal
- o Technical proposal
- o Technical proposal does not contain prices
- o Envelope is sealed
- o Envelope is marked as follows:

  Name of company, RFP number - technical proposal

☐ Envelope for price proposal
- o Price proposal
- o Envelope is sealed
- o Envelope is marked as follows:

  Name of company, RFP number - price proposal

☐ 1 outer enveloped
- o Containing ☐ bid form, ☐ envelope for technical proposal, and ☐ envelope for price proposal
- o Envelope is sealed
- o Envelope is marked as follows

  Name of company
  RFP number
  UNICEF *XXX*
  Address

ANNEX 1.

Water resources assessment (maps and hydrogeological conceptual models) for the water resources

The Consultant will produce a water resources assessment prioritizing groundwater resources (maps and hydrogeological conceptual models) to identify the water sources for the towns and satellite villages before entering in to the next step. The groundwater assessment will be based on (i) a desk review and (ii) detailed site specific investigations including geophysical assessments for the selected sites where drilling will be required.

The work should start from data collection and review of all available information (available maps, documents, reports, hydrometeorological data, well data, water quality data, geological settings, stakeholder maps, etc.). Background information should be gathered and collated by the Consultant. Conceptual hydrogeological models should be developed to complement data scarcity. Based on the desk review, the Consultant will identify the detailed study areas with the highest groundwater potential and close to priority population targets and will produce maps for each town detailing groundwater potential.

Detailed and site specific hydrological, hydrogeological and geophysical investigations will be conducted with the purpose of identifying the most suitable and climate resilient locations for water abstraction and / or for optimal borehole drilling. The investigations will include hydrological, hydrogeological and geophysical assessments where relevant.

Hydrological study: characteristics of rivers within or adjacent to the detailed study areas and assessments on recharge possibilities, accounting of all factors influencing the catchment area, existence of springs and their hydrogeological implications, surface and groundwater relationships.

Geological study: in the course of the geological investigation the following investigations should be executed in the detailed study areas.

- Classification of all the rock types and establishment of the stratigraphic relations of lithostratigraphic units.
- Determination of the lateral and vertical extent of lithostratigraphic units.
- Identification and mapping of all geological structures.
- Determination of the major structures having important hydrogeological implications (faults, dykes, etc.).
- Preparation of geological sections along zones of likely high groundwater flow paths.
- Close observation on the texture, cementation, porosity and general lithostratigraphy of the geological formations at the local sites (geological characterization).

Hydrogeological study: the activities below will be undertaken in the detailed study areas.

- Inventory of springs, wells and all boreholes and recording their GPS coordinates and codes.
- Identify major aquifers, define their possible extent based on the available data and field inspection combined with the geological data.

- Hydrological/hydrogeological observations and measurements: water levels (groundwater level observations), discharge measurements where applicable
- Close observations on the geomorphology, land use, vegetation and geological structures.
- Observations and mapping of groundwater manifestation horizons like seepage zones, springs etc. and groundwater flow directions.
- Assessment/evaluations on recharge conditions for the area for its sustainable utilizations
- Regional view and understanding of the groundwater system of the local area.
- Estimation of the hydraulic properties of the aquifer
- Other basic data/parameters that may be revealed during the course of the study.
- Identifications of possible target areas by the help of the above information for geophysical investigation work to supplement the hydrogeological analysis.

Geophysical study:

- Within each of the detailed study areas the Consultant will carry out a geophysical survey to identify the potential drilling sites.
- Previous geophysical surveys conducted in the area (if available) should will be reviewed.
- If the target area has been identified as appropriate for drilling, for each target area the Consultant will realise 3-5 geophysical surveys.
- For each geophysical survey the Consultant will produce 10 geoelectric tomographs.
- For each target area the geophysical survey will identify an optimal site for drilling a borehole.
- Map the results of the geophysical survey (1:1,000).
- The Consultant should recommend the appropriate type of drilling technology to be used in each site.

ANNEX 2.

Affordability and Willingness to Pay (WTP) studies, business plans development and (pro-poor) tariff setting for the selected towns and satellite villages

The willingness and ability to pay studies will be undertaken in the three selected towns and satellite villages based on the Government of Ethiopia policies, norms, and regulations for water supply in urban areas, as well as good practices according to international standards. Demographic and economic growth, including population projections and water demand and consumption will consider the growth potential that presents the increase in economic and commercial activities expected over the coming years due to growth in agricultural development in the area, which in turn is expected to bring increased migration.

Household surveys will be undertaken from a statistical sample of households. The sample strategy consists of two forms of stratification: primary stratification of zones within the selected towns (stage 1) and random household selection from these zones (stage 2). The primary stratification will involve a 50% sample of the zones in the town. The second stratification stage will use the following sampling formula for the random selection of the households from the selected:

$$SI = \frac{Tc}{N}$$

Where:
SI is the sampling interval,
Tc is the total cumulative number of households
N is the total number of zones.
The total number of households to be interviewed will be defined based on the final sampling.

The financial business plans for the 3 selected Town Water Supply Utilities (TWUs) will be developed according to Government of Ethiopia sector policies and regulations and according to international standards. The preparation of business plans will be done in consultation with Water Resource Development Fund/WRDF, town councils and water utilities to define a sustainable level of cost recovery for infrastructural investments in urban water supply schemes. As part of the Technical Assistance, the Consultant will also support the WRDF in performing the financial assessment for each town to define a sustainable level of cost recovery. The TWUs Business Plans will be produced to:

- Provide consumers with a fair and affordable price structure consistent with maintenance of a financially and operationally secure water supply system.
- Encourage consumers to make efficient use of water.
- Encourage operators to make efficient use of plant (assets) and operational efficiency based on targets set. With this regard, assets inventory for each TWU will be produced as part of the business plans.
- Provide service providers/operating companies reasonable return/profit to give confidence to current investors and attract new investors.

- Provide a tariff structure in line with the cost recovery principle; and
- Provide for future progress towards a commercially competitive system.

Resulting from the willingness and capacity to pay analysis and the definition of business plan for each TWU, pro-poor ***water tariff schemes*** will be developed and proposed to regional and local authorities as well as UNICEF for revision and approval. Setting of water supply tariffs for the selected towns will be guided by the key principles set forth in the Ethiopian Water Resources Management Policy which has several provisions and active involvement of the stakeholders, especially the local authorities. Some of the salient features of these policy statements include:

i. *Ensure that tariff structures are site-specific and determined according to local circumstances.*
ii. *Ensure that pricing for urban water supplies will aim at full cost recovery and develop cross-subsidization strategies and promote credit services.*
iii. *Enhance self-financed and total cost recovery programmes in urban water supplies.*
iv. *Ensure that rural tariff settings are based on the objective of recovering operation and maintenance costs while urban tariff structures are based on full cost recovery.*
v. *Establish progressive tariff rates, in urban water supplies, tied to consumption rates.*
vi. *Develop flat rate tariffs for communal services like hand pumps and public stand posts.*
vii. *Financing sanitation: based on the preliminary socio-economic assessments, development of different strategies to support (investments and) O&M costs exploring options for cross-subsidizing from water, linking sanitation to Income Generating Activities and involving the private sector actors.*

The business plan will also include a realistic *investment plan* for the next ten years for water and institutional sanitation (for water production, treatment, storage and distribution and sanitation management in institutions including management of public latrines and sludge drying beds) in line with the demand.

ANNEX 3:
Terms of Reference for Environmental and Social Impact Assessment (ESIA)

The ESIA consists of specific task as shown below and described in detail in chapter 6

No	Description of activities	Stage	Time frame
1	Site Reconnaissance and Scoping Study/Land Access and Compensation Framework Delivery of Scoping Report detailing work plan / methodology	Stage 1	1 month
2	Stakeholder Engagement, Stakeholder Engagement Plan	Stage 2	7 months
3	Preparation of Project Description (for each site)		
4	Description of Legal Framework and applicable Standards		
5	Description of Environmental and Social Baseline Conditions		
6	Identification and Assessment of Environmental and Socioeconomic Impacts		
7	Environmental and Social Management and Monitoring Plan (ESMMP), including site specific ESMPs		
8	Land Acquisition, Compensation and Resettlement Plan (if applicable), for each site.		
9	Final ESIA reports		
10	Capacity building		
11	Data dissemination	Stage 3	1 month

1. Methodology

1. Site Reconnaissance and Scoping, Delivery of Scoping Report detailing work plan / methodology

The Consultant shall carry out a site reconnaissance/scoping exercise, covering the key aspects of the physical, biological and socioeconomic environments in the project areas of the three sites and identify the key issues relevant to be considered in the ESIA. The reconnaissance visit with the scoping exercise will comprise the establishment of the work plan for the baseline studies and will as well contain a preliminary identification of environmental and social impacts and an outline of mitigation measures. The Consultant will produce a Scoping Report (covering all sites) including the work program for the baseline investigation and for impact assessment, including the development of the Environmental and Social Management Plan and including an initial stakeholder engagement plan. Overall, the scoping exercise aims at identifying those potential impact areas that need further investigation in the ESIA phase.

NOTE: in case Indigenous People on their traditional territories are likely to be affected and WB ESS 7 be triggered, the process of Free, Prior and Informed Consent has to be applied. The Scoping process shall identify whether WB ESS 7 is triggered and clearly refer to any resulting requirement in the Scoping Report.

NOTE: The Scoping Exercise will be undertaken in close communication with the technical feasibility consultant in order to reflect to maximum extent possible the technical design and in order to timely discuss any options to avoid negative impacts by design changes.

NOTE: The Scoping Report should be developed along the table of contents of the future ESIA and should ideally comprise to the extent possible already detailed chapters for the future ESIA. For example, based on the ESMF for the One WaSH Project (2018), the ESIA chapter on the legal framework and applicable standards, could already be part of the Scoping Report.

In the course of the Scoping Phase, a review of the One WaSH-Consolidated WaSH Account Project (One WaSH-CWA) Updated Final Resettlement Policy Framework (November 2018) against the Applicable Standards will be undertaken. This RPF, including the review results, will form the basis of the Land Access and Compensation Framework (LACF) to be developed for the Project. The development of the LACF will comprise site reconnaissance visits, to be undertaken jointly by the resettlement expert with the ESIA team in order to obtain initial information on potential displacement impacts.

2. **Stakeholder Engagement, Stakeholder Engagement Plan (for each of the sites)**
   The Consultant will meet all requirements of national legislation regarding stakeholder engagement activities to inform the ESIA process and to prepare disclosure of the outcomes of the ESIA. Stakeholder engagement and public disclosure should at minimum cover the following aspects: Identification and consultation of interested parties (beneficiary neighboring communities, communities potentially affected by the project, downstream water users, local authorities, regional authorities). For further guidance, see attached sample ToC for a Stakeholder Engagement Plan.

   Stakeholder Engagement during the Scoping Phase, prior to the start of the baseline studies:
   At least one initial meeting with each of the identified parties, presenting the project and seeking input on the scope of work for further environmental assessment work (obtaining views, concerns, aspirations and expectations of key stakeholders); meetings will be conceptualized as a two-way communication, based on participatory formats (e.g. focus group discussions).

   During the ESIA process, stakeholder engagement will be undertaken as a continuous process, specifically during the acquisition of the socio-economic baseline information. In this context, synergies will be drawn to maximum extent between baseline survey activities and stakeholder information/-engagement. Results from the stakeholder engagement process will be integrated into baseline information and be taken into account for impact assessment and the planning of mitigation measures.

   Public disclosure of Draft ESIA/ESMP (each of the sites):
   The key contents of the Draft ESIA and ESMP, based on a non-technical summary report in local language, will be publicly disclosed in accessible, transparent and culturally appropriate formats of disclosure events. The disclosure process will as well cover all national legal requirements. Public disclosure will cover the results of the environmental assessment, including presentation of identified potential impacts and proposed mitigations, seeking input on these proposed environmental management measures; All consultations will be documented in writing, and where the people accept, with photographs and/or video of proceedings. These will then be filed in the project files. The opinion/suggestions made by the community/affected groups shall be incorporated in the ESMMPs.

In addition, the ESIA Report including non-technical summary shall be disclosed in the offices of the implementing agency and/or regional and local authorities.

The non-technical summary should include:

- A concise summary description of the proposed project
- The rationale for the proposed project
- The geographical area that the project will influence
- The existing environment in the area of influence
- Any significant environmental and social impacts
- Any significant issues or opportunities related to the project
- A summary of key aspects of the Environmental and Social Management Plan
- Residual risks/issues (after mitigation)
- Summary of Stakeholder consultation held and further activities, Information about availability of Grievance Mechanism and Contact details for further Information

NOTE: the planning and implementation of the public disclosure process, including the preparation of the NTS in local language and including the preparation of other material for public disclosure as well as planning of logistics and organization of disclosure events with local stakeholders/local authorities, is part of the task. Public disclosure will be undertaken jointly with the contracting agency.

Grievance Mechanism

The Consultant will propose, by the start of the project activities, a grievance mechanism and consult this mechanism during early stakeholder consultation with the local communities and relevant authorities in the project area. The grievance mechanism must be accessible to all groups of potentially affected people (including vulnerable groups, children, women and disabled people), transparent, free of cost and culturally appropriate. The agreed grievance mechanism will then be operated and maintained through project preparation, construction and operation where relevant. The ESIA Report, in the section on stakeholder engagement, shall describe the grievance mechanism and the corresponding responsibilities for grievance management (who is involved in grievance resolution, documentation of grievances, monitoring and follow up). The grievance mechanism will be integrated into the SEP.

Mechanism for Inter-Community and Intra-Community Conflict Resolution

The Grievance Mechanism will be designed in a manner that also inter- and intra-community conflicts related to the Project will be addressed and managed/resolved. These may evolve due to overall scarcity of water in the project area and due to community expectations, which the project may not be able to meet comprehensively. In addition, existing conflicts may influence reactions of local communities to the Project. The mechanism will be integrated into the ESMP.

Overall the Stakeholder Engagement Plan shall comprise at minimum, but may not be limited to the following aspects: National legal requirements for stakeholder engagement and public disclosure

- Stakeholder identification
- Stakeholder engagement activities to be undertaken during ESIA process, specific provisions for engagement of women and of vulnerable groups

- Stakeholder engagement during construction and operation phases (in the format of an outlook, to be updated prior to construction and to operation respectively)
- Grievance mechanism, including mechanism to resolve inter- and intra-community conflicts
- Roles and responsibilities
- Monitoring and Reporting
- Capacity Building
- Engagement Register/Documentation of stakeholder activities undertaken to date

A Stakeholder Engagement Plan shall be developed for each of the sites.

3. **Preparation of Project Description (for each of the sites)**
   The Consultant shall produce a concise and comprehensive description of the proposed Project, supplemented by maps and drawings. The project description should contain a detailed, up-to-date description and delineation of the proposed project within its geographical, environmental and socio-economic context. The Project description should also describe any associated facilities which are required for the project to be built and operated. The project description can also include project alternatives, but these can also be described in a separate section. The analysis of alternatives should consist of a systematic comparison of feasible alternatives to the project in terms of: Location, Project technology, Design in terms of potential environmental impact. The analysis should include the 'do-nothing' option.

4. **Description of Legal Framework and applicable Standards**
   The ESIA shall contain a summary of the legislative framework relevant to the Project (see above under Scoping Report). The legislative framework should clearly identify the relevant environmental, social, occupational health and safety and labor standards, laws and regulations applicable to the impact assessment and to be adhered to within Project implementation (e.g. related to overall environmental and social management/occupational health and safety, public health and safety and labor conditions as well as related to specific aspects, such as air emissions, wastewater discharge, noise, etc.).

   In addition to national legislation, the following international environmental and social standards will be applied:

   - UNICEF Environmental and Social Standards (Draft Version)
   - WB ESS 1-8 and ESS 10
   - ILO Core Labor Standards
   - WB/IFC General EHS Guidelines
   - WB/IFC EHS Guidelines for Water and Sanitation
   - For resettlement aspects the UN Basic Principles and Guidelines on Development-based Evictions and Displacement, namely §§ 42, 49, 52, 54 and 60, have to be complied with (in addition to national legislation and WB ESS5);

The ESIA shall comprise a structured analysis of nation legal requirements against the requirements of the international standards as listed above and targeted measures to close any gaps. For this analysis, guidance should be obtained for the Environmental and Social

Management Framework for the One WaSH-Consolidated WaSH Account Project (One WaSH-CWA) (2018).

5. **Description of Environmental and Social Baseline Conditions (for each of the sites)**
The description of the existing environment should describe relevant aspects of the physical and natural environment and socio-economic conditions in the project's area of influence. The project area of influence shall be determined for each of the projects as per WB ESS 1.

The ESIA shall contain a description for the environmental and socioeconomic baseline conditions of the Area of Influence of the Project. This baseline description shall be derived from both secondary sources including reports from regional authorities and fieldwork to collect primary data where required.

Hence, the Consultant shall undertake the necessary field work to establish a baseline description that fits the scope and nature of the project and the nature and significance of potential impacts. Typical methods of data capture are:

- Evaluations of statistical documents and available reports,
- Interviews with local knowledge bearers,
- Site surveys and site visits
- Interviews with focus groups (e.g., women, farmers, members of ethnic minorities etc.),
- Ecological field studies,
- Samplings and laboratory analyses etc.

The Consultant shall provide a justification of estimated efforts in terms of personnel input (person months) required for the field studies, including the consideration of seasonality. Data gaps or uncertainties inherent in the baseline description shall be stated and explained. Data presented within the baseline description shall be sufficient to describe the key aspects of the AoI. Baseline description shall also indicate the accuracy, reliability and sources of the data presented.

Integration of Specialist Studies in the ESIA Process

Hydrological Assessments

The Consultant will be provided with the results of specialist studies (to be undertaken by the technical team), especially studies which analyse the overall hydrological situation in the project areas.

The Consultant shall integrate the findings of the specialist studies in the description of the baseline situation for the three project areas and will as well use the studies for the assessment of the corresponding impacts.

For diligent integration of information from the specialist studies, the Consultant is expected to familiarize with the situation on the ground in the three project areas regarding the hydrological conditions and to undertake a review and analysis of the data provided by the technical team in the course of integration of relevant information into the ESIA process.

Baseline Information

- Climatic conditions, vulnerability of project region to climate change, including potential water stress
- Geology, geomorphology
- Hydrological conditions, water resources: surface water, groundwater (quality, quantity)
- Land use and settlement patterns
- Key flora and fauna
  - Protected areas
  - Protected, listed or endangered species
  - Habitats, including any protected habitats, e.g. Sites of Special Scientific Interest
  - Ecosystem issues, ecosystem services
  - Existing environmental pressures (incl. climate adaptation)
- Air quality, Noise and vibration
- Social and socio-economic issues
  - Demography (population, trends, age/gender profiles, migration)
  - Social composition (ethnicity, clan/tribal structure, minority groups, including the presence of any indigenous peoples)
  - Vulnerable Groups
  - Administration, power relationships and governance issues
  - Conflict and social tension amongst and between communities, with a focus on conflicts over resources (land, water, etc.)
  - Land ownership and tenure
  - Water uses and water users in the AoI and adjacent areas, including seasonal water users
  - Details regarding identification of potentially physically/economically displaced people/communities
  - Economic activities (formal and informal sector)
  - Livelihoods
  - Education
  - Population health profile
  - Gender issues
  - Vulnerable groups
  - Cultural heritage
  - Community health, safety and security
- Occupational health and safety
- Labour issues and working conditions

The Consultant shall propose and apply an appropriate approach for the establishment of baseline information, in line with the requirements of the Applicable Standards as listed in these ToR and in line with international best practise. Baseline information shall be grounded on the use of existing information but shall as well be based on own field work of the Consultant. This is of high importance regarding the acquisition of socio-economic baseline information, including the information on water uses and water users in the three project areas. It is expected that the Consultant will apply a sound methodology, combining quantitative and qualitative survey tools and using to maximum extent the participatory approach. For the natural environment, the approach to establish baseline

information will be as well covering a combination of use of existing information and own field work/field surveys to be undertaken by the Consultant.

The Baseline Section of the ESIAs shall comprise the description of approach, methodology and also of the corresponding limitation on acquisition of the entire range of baseline information. Baseline information shall cover the direct project areas as well as any associated infrastructure.

Baseline information shall be illustrated by maps showing the location and distribution of environmental features and project footprint/associated infrastructures.
NOTE: in case Indigenous People on their traditional territories would be affected and WB ESS 7 be triggered, the process of Free, Prior and Informed Consent has to be applied. The Consultant will verify the presence of Indigenous Groups during the baseline field work the latest.

6. **Identification and Assessment of Environmental and Socioeconomic Impacts (for each of the sites)**

The Consultant shall assess and predict the anticipated negative and positive effects of the planned / implemented Project on the environment and socioeconomic baseline. The Consultant will make use of a robust and consistent qualitative or semi-quantitative methodology to assess the impacts in line with national and international standards as listed above and identify major, moderate, minor and negligible impacts (impacts to be identified and characterised in terms of magnitude, significance, reversibility/potential for mitigation, extent, duration). The possibility for cumulative impacts should also be considered. Quantitative data should be employed to the extent possible.

Environmental and social impacts and risks shall be explicitly linked to relevant stages of the project cycle, such as:

- Pre-construction phase
- Construction
- Operation & Maintenance
- Decommissioning or Closure and Reinstatement

Based on the impact assessment, the Consultant shall identify and propose adequate and suitable measures - based on the mitigation hierarchy - to anticipate and avoid, or where avoidance is not possible, to minimize the identified impacts.

Where significant residual impacts remain after application of mitigation measures, the Consultant shall propose measures to compensate/offset the identified impacts. The impact assessment shall be presented in a logical and clear format and include an assessment of the impacts prior to and following the implementation of mitigation measures.

NOTE: the impact assessment shall provide detailed recommendations for the avoidance of impacts by change of design of relevant project components.

NOTE: impact assessment will cover to the extent possible associated facilities such as access roads, borrow pits and spoil areas.
Negative impacts associated with the project infrastructure production wells/boreholes, all major civil works including reservoirs, transmission mains, distribution lines, etc., may include but may not be limited to the following:

During planning (where relevant regarding baseline situation of the respective project site)

- Involuntary economic or physical displacement resulting from land needs/land take/Land acquisition for the project
- Conflict over siting of wells: unrest between communities regarding location of wells

During construction (where relevant regarding the baseline situation of respective project site)

- Loss of vegetation: drilling sites, routing and digging of the water distribution pipelines may lead to loss of vegetation;
- Dust and noise nuisance during excavation works;
- Risks of soil erosion from loose excavated soils;
- Pollution risks associated with management of drill mud;
- Risks associated with sanitation including solid and liquid waste management during construction;
- Temporary and permanent loss of land, loss of structures, damage to property;
- Community and worker exposure to HIV/AIDS, to sexual harassment and violence;
- Injuries and accidents to the workers as to the public and to livestock;
- Decommissioning plan;
- Contingency plan in case of accident,

During operation

- Impacts to ecosystems/loss of ecosystem services may result in increased vulnerability and community safety-related risks and impacts which need to be assessed.
- Risks of breeding disease vectors from improper management of accumulated spill waters from standby taps which can provide breeding grounds for mosquitoes;
- Overexploitation of water resources: If sustainable yields of wells and aquifers are not well established during planning, risks of over-harvesting underground water resources leading to drying of the aquifer hence, affecting water availability in the vicinity. This could trigger conflicts between communities;
- Risks of microbiological contamination of wells;
- Risks of vandalism and non- appropriate use of facilities;
- Potential disruption of water supply facilities
- Risk of uncontrolled population influx due to improved water supply and sanitation services
- Impacts derived from the establishment of a tariff system: good understanding of community livelihoods and vulnerabilities and of 'willingness to pay' required. Of concern are the risks to be experienced by women and girls (risk of sexual abuse and exploitation) and the situation of vulnerable households (lack of capacity to pay which could result in i.e. increased girl's school drop-out).

7. Environmental and Social Management and Monitoring Plan (for each of the sites)

The Consultant shall prepare a Project level Environmental and Social Management and Monitoring Plan (ESMMP) to manage, mitigate, and monitor any potential negative impacts and enhance benefits associated with the Project.

It is expected that the Contractor develops site specific Construction ESMMPs CESMMP), which will be endorsed, and the diligent implementation monitored by the Consultant. ESMMPs will include a table of the commitments based on the mitigation measures identified, with detail on the anticipated objectives of each measure, related milestones and time frames and reporting requirements as well as competencies and human resources, required equipment, materials and budgets required for the implementation of this commitment. In particular, the ongoing monitoring activities shall be clearly outlined for the key aspects, as identified through the ESIA. The management plan shall be clearly structured and should cover all project stages relevant to the specific sites.

Regarding the nature of the project, it is expected that at minimum, the following aspects will have to be covered by the ESMMP

- Waste Management, including hazardous material management
- Water and Sanitation Management Plan
- Integrated Water Supply Maintenance Plan
- Biodiversity Management Plan (if required)
- Climate change adaptation opportunities of the project
- Pollution Prevention and Control Plan,
- Noise and dust management plan
- Construction traffic management plan
- Land Acquisition, Compensation (and Resettlement) Plan (see below Task 8)
- Stakeholder Engagement and Grievance Mechanism, Conflict Resolution Mechanism for Inter- and Intra-Community Conflicts (see above Task 2)
- Workers Management and Recruitment (including local hiring procedures)
- Worker Construction Health and Safety (Occupational Health and Safety Management Plan)
- Workers Grievance Mechanism
- Workers Accommodation
- Community, Health, Safety and Security Plan
- Cultural Heritage Management Plan (if required)
- Emergency preparedness and response plan

Monitoring should focus on key indicators of project performance and social and environmental impacts. Indicators should be aligned to elements of the existing pre-project baseline and be: Specific, Measurable, Achievable, Relevant, Time-bound.

Provision should also be made for:

- Capacity building, e.g. training of project staff or third parties (see task 10 below)
- Contingency and emergency response plans and measures, including adequate resourcing

NOTE: The Consultant will prepare ESIA and ESMP reports for each of the three project sites. Reports will be prepared as draft and final versions. Final versions will reflect comments received from public disclosure, from the contracting agency, from relevant authorities and other relevant parties.

8. Land Acquisition, Compensation (and Resettlement) Plan

It is expected that the project will cause economic and physical displacement. Hence a Land Acquisition, Compensation and Resettlement Policy Framework will be prepared during the Feasibility Study Phase.

The ESIA process will identify and assess impacts from the project land take, temporary and permanent, including associated facilities and will hence provide information for the preparation of detailed Land Access and Compensation Plans (LACP) for each of the three sites respectively. The preparation of the LACPs will be guided by the Land Access Framework (LACF), see above. The LACP will be developed with reference to the Resettlement Policy Framework for the One WaSH Project and additional guidance (as provided by KFW).

9. Final reports (for each of the sites)

ESIA will be undertaken for each of the sites, 2 sites in SNNPR (Bulle and Doyo Gena) and 1 site in Oromia (Bidre) shall be reported on in two separate reports; and hence 3 separate ESIA reports will be developed during project stage 1. Further ESIA reports per project sites will be developed during project stage 2. However, the Consultant may use certain chapters of the ESIA for all reports as appropriate (e.g. legal framework) whilst other chapters have to be elaborated in a site specific manner (e.g. whilst most of E&S management measures may be similar for all sites, there may be site specific requirements which will have to be considered for each site; environmental and social baseline description and impact assessment shall be described entirely site specific).

10. Capacity building

During the field studies, on-the-job training of governmental counterparts is crucial to build capacity at regional, zonal and local level. The on-the-job training requires a pro-active and engaging work attitude and is to be combined with theoretical input sessions providing an in-depth background of the impact assessments.

11. Data dissemination: Academic publications and presentation of study to UNICEF and key stakeholders

As part of data dissemination, final presentations of the studies to KfW, UNICEF and key stakeholders is to be held at both regional and country office level. This is in addition to the local stakeholder engagement activities. Academic publications should be considered where feasible and is strongly encouraged covering the study of sustainability and climate-resilience of the developed aquifers.

12. Expected Deliverables of the ESIA

Deliverables shall comprise at least the following, covering all project sites of project stage 1. During project stage 2, the deliverables are structured in the same way for the respective project sites to be defined.

Activity	Deliverable	# of Copies
Stage 1	Draft scoping report detailing proposed methodology and final work plan for the assignment.	4
	Minutes of the presentation to KfW/UNICEF of the draft scoping report for review.	4
	Submission of the final scoping report covering all project sites.	4
Stage 2	Revised and validated final ESIA Reports (see annex 2), including Non-Technical Summary (NTS), Environmental and Social Management and Monitoring Plans (ESMMP) and Stakeholder Engagement Plans for the three towns	4
	Summary of on-the-job capacity building and minutes of input workshops before and after the on-the-job training.	4
Stage 3	Knowledge dissemination activities such as a minimum of 3 workshop/PPP to UNICEF and key stakeholders at country office level, in Oromia and SNNP regions;	
Retention payment	Final approval by KfW/UNICEF (six months after completion of all Contactor's activities).	

All deliverables will be submitted as draft versions for comments and no-objection. Final versions will address and integrate comments from KfW/UNICEF. All raw data will be made available to UNICEF, data in the field is to be recorded including coordinates in the WGS84 UTM37N format. Installments will be paid upon presentation of revised and final deliverables.

Required Expertise for ESIA

Environmental Expert

- At minimum 8 years experiences with environmental studies and –impact assessments, including experience with ESIAs for WaSH sector; in depth familiarity with the application of international environmental and social safeguard standards (IFC PS, WB OP, WB ESS, WB/IFC EHS Guidelines)
- At minimum 8 years experiences with the development of Environmental and Social Management Plans, including monitoring plans (in line with international standards and best practise)
- In depth experience in the area of environmental and social risks from water provision and sanitation projects
- In depth experience from similar project in the region and ideally in Ethiopia

Social Expert

- At minimum 8 years experiences with socio-economic studies and –impact assessments and social management plans, in depth-familiarity with participatory field work and stakeholder engagement, including grievance management; in depth familiarity with the application of international environmental and social safeguard standards (IFC PS, WB OP, WB ESS, WB/IFC EHS Guidelines)

- In depth experience with addressing public health risks from WaSH projects and other typical social issues in the context of WaSH projects, specifically conflicts over access to water;
- Experience in the identification and assessment of impacts resulting from a project's land take (economic and physical displacement)

The Bidder shall propose an appropriate composition of the ESIA Team, covering at minimum the requirements listed above.

Required Expertise Resettlement Expert

- At minimum 10 years with involuntary resettlement planning in line with requirements of international standards (WB; IFC), including preparation of Resettlement Policy Frameworks/Land Access and Compensation Frameworks, Resettlement Action Plans, Land Access and Compensation Plans, Livelihood Restoration Plans;
- In the course of resettlement planning, profound expertise with the application of socio-economic survey methods and of participatory social field work tools
- In depth experience with stakeholder engagement in the displacement context
- Experience working in close collaboration with national resettlement experts in the role of a guiding advisor
- Working experience in the resettlement context in Ethiopia
- Excellent reporting skills

ANNEX 2 – Contents of ESIA Reports

The ESIA reports with the NTS (draft, draft final and final) shall summarize the results of the ESIA process.

The contents of the ESIA Reports shall include (but may not be limited to) the following:

- Non-technical Summary – NTS (as separate document)
- Introduction
- Legislative and institutional frameworks
- Description of the Project, including alternatives and decommissioning
- Stakeholder engagement (summary, details in Stakeholder Engagement Plan)
- Description of the social and environmental baseline conditions
- Impact identification and assessment
- Mitigation measures
- ESMMP and monitoring
- Summary and Conclusion
- References
- Annexes including:
    - List of ESIA report preparers–individuals and organisations.
    - Record of stakeholder engagement activities including meetings (public consultations), documentation disclosure and other interactions the Project stakeholders. Copies of stakeholder engagement material used should be included.
    - Tables presenting the relevant data referred to or summarised in the main text.

ANNEX 3 - Contents of Land Acquisition, Compensation (and Resettlement) Plan (LACRP) (as required)

1. Brief description of the project.
2. Potential impacts that may occur. The identification includes:
    a. components of project activities that would require land acquisition;
    b. areas to be affected by the activity.
3. Census of Project affected peoples (PAPs) and inventory of assets affected by the project.
4. Results of the survey and asset inventory, which will include:
    a. list of PAPs, covering land user with legal titles, with legally recognizable rights and without legally recognizable rights; and,
    b. inventory of land parcels and structures affected by the project.
5. Eligibility. Identification of which PAPs will be entitled to receive compensation and explanation of the criteria used to determine eligibility.
6. Compensation and any additional assistance to be provided. This includes a description of the compensation options (and resettlement assistance) that will be offered to the PAPs.
7. Public consultation with local community members who will lose their land and other assets. This include activities to
    a. inform the PAPs about impacts of the project activity, available options for compensation (and resettlement assistance), and procedures to obtain compensation, and
    b. provide opportunity for the PAPs to express their opinion or concerns.
8. Institutional Responsibility. Brief description concerning the organizational frameworks to implement the activities of land acquisition.
9. Schedule of Implementation. An implementation schedule shall be made to include all land acquisition activities, including target deadlines for compensation payments. The schedule must describe how land acquisition activities are linked to the overall project activity's implementation.
10. Cost and Budget. Costs estimations for land acquisition are required by the project activity.
11. Grievance Procedures. A workable procedure must be set up, which can be accessed by complainants for settlement of disputes arising from the land acquisition; such complaints' mechanisms should consider the options to go to the district court as well as community-based and traditional dispute resolution mechanisms.
12. Monitoring. Plan to monitor land acquisition activities and compensation payment to the PAPs.

ANNEX 4.

Capacity Building to Town Water Utility and Water Board – through the Build-Capacity Building-Transfer (B-CB-T) Contracting Approach

1) Background

Capacity Building to TWUs and Water Boards is needed to ensure quality and sustainability of water service delivery to urban residents. Although assets can be improved through different forms of investments (grant and loan, from various sources), TWUs often lack skills, personnel and equipment providing services which are sub-standard and unable to meet customers' demands.

In Ethiopia, given the current institutional framework and administrative system, some of the main characteristics of low-performing TWUs include:

- Poor service coverage (in terms of population served and continuity of the service)
- Low water quality
- High level of NRW
- Weak tariff system
- Absence of a proper pro-poor strategy (perception of low-income users as unprofitable)
- Poor accountability - i) towards a regulator (simply because there's no a recognized regulatory body which sets standards for performance - Town Water Boards are in place but often without a performance-based framework arrangement with TWUs and therefore not able to function as regulatory bodies) and ii) towards customers.

All these elements, in addition to other external factors, determine low profit, incapacity of improving the water supply system to meet growing demand and, along with the limited available human resources, faster deterioration of the assets.

On the other hand, "traditional" capacity building approaches do not often ensure the expected results in supporting the TWUs to improve their performance mainly because of:

- Inappropriate assessment of existing TWUs capacity / standard capacity building formats with no TWU-specific design
- Inappropriate planning for skill transfer, not responding to the requirements of Business Plans - (most of all) absence of benchmarks to monitor the impacts of capacity building activities in improving TWUs performance.

2) The Build Capacity Building and Transfer (BCBT) Contracting Approach

a) Principles of BCBT in comparison with BOT

BOT (Build, Operate and Transfer) is a form of project financing, wherein a private entity receives a concession from the private or public sector to finance, design, construct, and operate a facility stated in the concession contract. This enables the project proponent to recover its investment, operating and maintenance expenses in the project (Source: UNIDO).

The BCBT (Build, Capacity Building and Transfer) is an alternative -full package version developed by UNICEF Ethiopia which better fits the principles of the BOT to the particular institutional framework of the WASH sector in Ethiopia. The BCBT approach, when compared to the BOT, is characterized by the following features:

i. Financing is availed by Donor/UNICEF, with possible contributions of regional governments as matching funds;
ii. There's no concessional arrangements as the property and liability for assets management remains with the TWUs;
iii. The private contractor provides a regular on-the-job capacity development support to the TWU in operating the system after construction,
iv. The impact of the "CB" component (and therefore the performance of the private Contractor) is measured through selected TWUs Key Performance Indicators (TWUs KPIs) against fixed Service Level Benchmarks (SLBs)
v. The performance of the private contractor for the "Build" and "Capacity Building and Transfer" components are of equal importance and will be linked to retention payment of the capacity building Consultant.

In short, the BCBT contracting approach has been conceived by UNICEF Ethiopia to ensure a proper transfer of skills from the private contractor to the public operator while the property of the assets and the responsibility of service delivery remain to the latter (public operator). This arrangement represents also an advantage for the Client since the contractor, being required to be physically present on site during the post construction phase, is held accountable during the liability period in a tighter manner.

3) Tasks and deliverables of the BCBT contracting approach

While the "Build" component deals with all the works component (drilling, civil works, supply and installation of pipes and fittings, supply and installation of electromechanical equipment) which will clearly be explained in tender the document, the tasks required for the "Capacity Building and Transfer" component are described here below.

Task 1 - TWUs assessment

Whereas the Lead Works Contractor is required to provide "Post-Construction" Capacity Building support to the TWUs focusing mainly on operation and maintenance activities of the newly constructed systems (regulated by defined performance indicators), the other major capacity building packages (which may also include the operation and maintenance support) will be provided by an independent consulting institution (CSO, private CB consultant, etc.) via Service Agreement(6).

The below description of tasks mainly refers to the capacity building support outsourced to a capacity building contractor/ consultant through service agreement (SA6).

The Contractor is required to assess the selected TWUs to analyze the existing organizational structure and identify capacity gaps in the utilities and water boards to develop and propose a TWU specific on-the-job training/capacity building plans to be submitted to the Client/UNICEF and local authorities for approval.

The on the job training and capacity building plan shall be produced and assessed against the Business Plans prepared and approved by the client and UNICEF. This will include, but not be limited to:

- A complete capacity assessment for the TWU and Water Board, including the proposed recruitment plan per TWU upgrading plan;
- A proposal on the equipment required for the TWU to complement the CB strategy;
- A proposal on the software to be purchased for the billing system in all TWUs, including printers top print bills;
- A proposal for the procurement of ICT equipment, leakage detection device, water quality analysis equipment and essential tools for operation and maintenance of the water supply scheme
- An inception report including the information outlined above.
- Total duration of Task 1: within two months of signing of the contract;
- Expected deliverable: Inception report including the outputs outlined above and a TWU specific on-the –job training/capacity building plan for a total input of 12 months over a 24 months period with clear identification of the areas of intervention and the experts' deployment plan. Additional training modules are also expected to be prepared for the Town Water Boards.
- Linked payment: 20 % of the total amount of the CB component.

Task 2 - Development of training manuals

Following the approval of the Client/UNICEF of the on-the-job training plan, the Contractor is expected to produce necessary training manuals. Training manuals shall be developed by integrating the existing relevant documentation available within the sector with the proposed materials by the Contractor.

- Total duration of Task 2: 2 months (for all towns – after endorsement of the capacity assessment report/capacity building work plans)
- Expected deliverables: training manuals in English and translated in regional languages to be endorsed by the Client/UNICEF
- Linked payment: 30% of the total amount of the CB component

Task 3 - implementation of the on-the-job training/capacity building support

The on-the-job training/capacity building plan shall be implemented for 3 months during the second year of construction phase and for 5 months during the post construction phase, coinciding with the defect liability period. The total duration of the capacity building component will be for 12 months (over 24 months period) including during the construction phase as well as during post construction period. Different inputs (man-days) from different thematic areas shall be required for the TWU, as per the approved plans and experts' deployment schedule (task 1).

Implementation of these trainings/capacity building activities focusing on coaching/mentoring of the TWUs requires a constant and continuous presence of Contractor's experts on site to work in close collaboration with TWUs staff during their specific periods of assignment. Each utility is in a different situation in terms of staff, capacities, and financial availability. This is also reflected in the official grade assigned by the Regional Bureaus, which in some cases does not allow immediate improvements in terms of recruiting the qualified staff required for a proper and efficient management of the new water supply system. Regional Bureaus are

cooperating in order to upgrade each utility to the required grade once/before the new systems will be functional, so that they will be possibly in a position to hire the necessary qualified staff. This means that the initial absorption capacity of each utility with regard to trainings is not the same, and in some cases is limited.

- Total duration of Task 3: 8 months (during construction and post construction period
- Expected deliverables: On-the-job training, capacity development, mentoring, coaching
- Linked payment: 40% of the total amount of the CB component

The on-the-job training/capacity building/mentoring/coaching support shall cover, but not be limited to the following operational areas of TWUs:

a) **External Accountability**- focus needs to be given to improve the relations of the TWUs with `external` actors and to orient their overall management to an efficient services delivery. In particular specific attention will be devoted to:
   - Improve relations with TWUs Boards, introducing and establishing a performance based contractual arrangements between Boards and TWUs managers (Performance Agreement), which should define, on the basis of strategic documents prepared by the utility management, the targets to be achieved in all areas of operation. Along with targets, a set of incentives should be defined as a mechanism to reward (or punishment) the level of targets achievement by the utility management.
   - Improve TWUs' interfaces with costumers, aiming at making TWUs more responsive to users' needs, increase communities involvement and influence in the decision making process and improve the transparency and accountability of TWUs management and operations.

b) **Internal Accountability** - focus needs to be given to improve, given the established structure and the existing capacity level, TWUs' operational efficiency in delivering required services. In particular, specific attention will be devoted to:
   - improve TWU Management's skills introducing basic principles of business oriented approach for service delivery;
   - improve the organization and coordination of activities of different TWU departments, and set up a structured and systematized information flow;
   - improve HR management in terms of planning and staffing (e.g. salary structure, expertise required, recruitment plan, staff development and motivation) with a proactive consideration of the existing constraints;
   - agree with Management and Board a plan for the introduction of performance targets -linked to the Performance Agreement - and related incentives for TWUs staff;

c) **Operation and Maintenance** - focus needs to be given to improve the efficiency of TWUs in performing Operations, Maintenance and Monitoring activities as well as ensuring an adequate service. Specific attention will be developed for the following areas:
   - trainings on O&M activities implementation and organizational arrangements (e.g. leak detection and repair, plumbing and pipe laying, electromechanical equipment O&M)
   - TWUs assets inventory and maintenance plan;
   - monitoring system / leakages detection strategy (pressure areas zoning)-
   - water quality surveillance plan;

d) **Financial Management** - focus needs to be given to improve the strategic approach and

Implementations of the Business plans. In particular trainings will be provided on the following areas:

- Long term strategy and business planning, including loan repayment schedules and performance targets. During these trainings the consultant shall support the relevant staff to correct and update their Business plan and strategic documents. These strategic documents should include specific targets for each area of operation of the utility and for each department/team within the utility. Such targets (or an aggregation) should then be included, and be coherent with, the Performance Agreement signed by Manager and Board;
- financial management and accounting procedures (introduction of double entry accounting system and appropriate software);
- tariff structure design and revision;
- billing system management and improvement;
- Strengthen procurement and contract management skills.
- Development of a strategy to reduce NRW (with the adoption of monitoring tools such as the yearly water audit).
- Asset evaluation

e) all the trainings carried out must be accompanied by a detailed record of subjects addressed, venue and duration, number and names of participants, to be provided to the Client through activity performance reports.
f) all trainings shall be conducted in the relevant regional language
g) a final workshop will be organized in Addis Ababa to promote experience sharing among the TWUs involved shall be arranged and facilitated by the Contractor

Summary of the focus areas of the capacity building component for both the TWU and the Water Board s is presented below:

1. ***Activities to be carried out during the Construction Phase:***
   As a general guidance, the activities identified in this phase shall be undertaken during the second year of the construction phase for a net period of 6 months. The activities will include, but not be limited to:
   1.1 Assessment of the capacity of the TWU and Water Board with recommendations of a capacity building plan including work plan to roll out the capacity building component,
   1.2 Preparation of training materials for the 4 operational areas based on the identified needs with the capacity assessment,
   1.3 Provision of basic trainings based on identified gaps/needs. These may include; basic computer training, training on accounting systems (double entry accounting & computerized accounting, billing system integration & customization, GIS, AutoCAD…
   1.4 Provide/ facilitate targeted technical support to technical staff during the construction phase (laying of transmission mains and distribution mains, valve chambers, installation of electromechanical equipment…)

2. ***Activities to be carried out during the Post Construction Phase:***
   The activities identified in this phase shall be undertaken during the post construction (defect liability) period with a net input of 6 months. The activities will include the following major tasks:

   2.1 Creating clear understanding/knowledge of the roles and responsibilities of TWUs and Water Boards,
   2.2 Establishing/strengthening Governance structures including the Water Board, Urban WASH Forum and Customer Forum,
   2.3 Support in the development of business plans and guidelines including training on the implementation of the business plan;

2.4 Support the TWU on proper asset management;
2.5 Customer service, billing and meter reading,
2.6 Leakage control and management
2.7 Water safety planning / water quality control,
2.8 Database management including real time information and data management,
2.9 Human resources management, and
2.10 Operation and maintenance focusing on electro-mechanical equipment…

Benchmarks indicators
The following KPIs and relevant Service Level Benchmarks (SLBs) shall be used to assess the impact of the CB component and therefore to monitor the improved performance of TWUs.

KPI	SLB	Linked Payment
1 - Reduction of NRW	Reduction of 20 %	**xx**% - upon achievement of the SLB within the given timeframe
2 - Increased number of metered connections (for each mode of service as outlined in the Business Plan)	As per targets set for each mode of service in the Business Plan for the 1st year of operation	**xx**% - upon achievement of the SLB within the given timeframe
3 - quality of water supplied (measured as compliance of the water supplied against the Ethiopian water quality standards/WHO WQ guidelines focusing on meeting microbiological water quality standards-assessed through a minimum of 6 complete laboratory analysis controls)	100%	**xx**% - upon achievement of the SLB within the given timeframe
4 - Efficiency in redressing customer complaints (measured as no. of actions successfully undertaken to address customer complaints (measured as no of actions successfully) undertaken to address customer complaints	100%	**xx**% - upon achievement of the SLB within the given timeframe

4) **Payments Modality specific to the CB component**
Task 1 - linked payment: *20%* of the total amount of the CB component
Task 2 - linked payment: 30 % of the total amount of the CB component
Task 3 - linked payment: 40% of the total amount of the CB component
Task 4 – Linked payment: 10% of the total amount of the CB component (retention)

The final (fourth) retention payment (10%) shall be released upon achievement of the SLBs set for the ALL the above indicators.

In case one or more of the SLBs for the TWUs KPI are not met within the given timeframe, the Capacity Building Contractor shall avail additional man-days of the required experts, with no additional costs, until the SLBs are fully met.

5) The CB Contractor's required Input:

The Contract shall clearly indicate cost associated to the capacity building and training as stated below:

a. **Experts to implement the CB components in the following areas of expertise:** financial management expert, water supply expert/engineer, water quality expert, electro-mechanical expert, human resources/institutional management expert, GIS expert for mapping the water supply network, …

The Contractor can propose for additional areas of expertise as deemed appropriate. The presence of the various experts in supporting the TWU and Town Water Board should be based on continuous deployment schedule and not limited to on-the-spot activities.

Required qualification for experts: academic background with minimum of 10 years of experience in the urban water supply sector.

b. Training Needs:

Numeration and including allowances

Description of requirements	No of experts	Man-month or Man-Days	education	Experience years

c. Operational Costs

SN	Description	No	Type	duration	Estimated cost (ETB)