

# REPUBLIC OF TÜRKİYE

## MERZIFON MUNICIPALITY

### Sustainable Cities Project 2 - Additional Financing (SCP2-AF)

# TERMS OF REFERENCE

## Consultancy Services for Design Review, Preparation of Bidding Documents for Environmental Infrastructure Projects

### 1 Introduction and Background

In Türkiye, cities have made major contributions to the country's substantial economic growth and development over the past few decades. They have helped boost economic productivity and today contribute over 92 percent of the country's value added. With the rapid urbanization after 1980, cities in Türkiye host over 90 percent of the country's population today, compared to only 25 percent in 1950. This urbanization, together with macroeconomic and fiscal stability, were at the heart of the country's strong performance, leading to increased employment and incomes.

Besides a growing urban population, Türkiye also has a growing number of cities with a population of over 300,000—27 by 2018. This number is expected to increase to 33 by 2050. The manner in which Turkish cities grow will have implications on how they consume natural resources and how susceptible they will be to future resource constraints. A city without a strong planning framework can sprawl and consume large areas of land with infrastructure needs that can be costly and inefficient to deliver. Moreover, cities with inadequate public transit systems force citizens to use private vehicles that cause congestion, air pollution, and carbon emissions, with negative impacts on the environment and human health. Water supply systems with high losses can represent a serious cost to the country's dwindling water sources, and untreated wastewater can contaminate land and water sources, making them a risk to environmental health. Cities are also a major consumer of electricity, which presents a critical challenge given Türkiye's energy dependence and reliance on energy imports.

To mitigate the potential risk mentioned above; and to increasingly support multisectoral system, and resilient thinking toward urban development, İLBANK has developed and implementing the Sustainable Cities Program (Program) with the support of the World Bank.

The Program aims to help municipalities: (i) respond to current and increasing demands for urban services; (ii) plan for future infrastructure service needs in a sustainable manner; (iii) mobilize financing to fund priority investment; and (iv) adhere to new spatial planning mandates and infrastructure service requirements as prescribed by the amended Metropolitan Municipality Law No 6360 in December 2012.

The main goal of the Program is to improve access to targeted municipal services in participating municipalities and utilities. It will support improvements to the environmental, economic, financial, and social sustainability of Turkish cities by improving access to priority municipal services.

The Program was designed as a series of projects (SOP). The SOP finances demand-driven municipal and utility infrastructure investments, with eligible sectors including, but not limited to, public transport, water and wastewater, solid waste management, and energy.

Within the context of SOP, since the funds under the first two Sustainable Cities Projects (SCP-1 and SCP-2) have fully committed to sub-projects for the participating municipalities/utilities, the Additional Financing (AF) to SCP2 (SCP2-AF) has emerged to provide additional funds to meet the significant increase in demand from municipalities, as well as to facilitate the scale-up of municipal subprojects in a broader number of municipalities and sectors. This exceptional demand includes identification of investments to improve public transport, water and sanitation, solid waste management, energy,

environment, disaster and climate resilience and social infrastructure. The SCP2-AF will allow ILBANK to support municipalities in financing priority projects in the immediate term. It will also support ILBANK, the Government of Türkiye and the World Bank to expand the sustainable cities approach both sectoral and spatially which will increase Program's impact and development effectiveness.

Currently, municipalities have limited financial capacity to design and implement climate- and resilience-related investments, which is recognized as one of the key constraints for climate action in Türkiye. The Program provides the opportunity to build capacity for screening, preparing, and implementing projects which consider climate and disaster resilience, particularly in terms of addressing increasing risks of extreme weather events and more frequent and intense flooding in low-lying areas of river deltas and coastal cities, and increasing difficulties in managing urban water resources during more intense and lengthy drought periods. The AF provides the means to invest in mitigation and strengthening a range of such climate adaptation measures in cities, which are increasingly susceptible to climate change risks.

The Sustainable Cities Project-2 aims to provide resources to Ilbank to meet a significant increase in demand from municipalities for participation in the series of Project and to improve public transport, water and wastewater, solid waste management, Access to renewable energy, energy efficiency of buildings and infrastructure, environmental protection, disaster and climate resilience and enhanced social infrastructure.

The Loan Agreement for SCP2 -AF for EUR 500 Million was signed on July 10, 2019 between the World Bank and ILBANK. The loan became effective on November 5, 2019.

SCP2-AF consists of two components as described below:

#### Component A: Municipal Investments

This component will be scaled up to finance demand-driven municipal infrastructure investments to improve access to quality, sustainable and resilient public transport, water and wastewater, solid waste management, disaster risk management, energy efficiency and renewable energy, and improve the urban environment, municipal firefighting services, and social infrastructure and services. Component A would finance goods, works, and non-consulting and consultant services, including the hiring of local technical consultants for engineering design and construction supervision.

#### Component B: Project Management

This component will finance goods, consulting services related to day-to-day Project management, M&E, reporting, and project communications.

The project will seek to achieve the following results, in line with the project development objectives and activities:

- (a) Improved access to safely managed water supply services;
- (b) Improved access to safely managed wastewater collection / sewerage services;
- (c) Improved wastewater treatment;
- (d) Improved solid waste disposal in targeted municipalities;
- (e) safer, cleaner and more accesible urban transport systems
- (f) Reduction in energy consumption in water and wastewater utilities and other municipal infrastructures
- (g) Increase of renewable energy in municipal infrastructe and decreased carbon emission
- (h) Strengthened institutional capacity to manage municipal services in municipalities and utilities.

## **1.1 Sub-Project Description**

The Sustainable Cities Project 2 (Additional Financing Loan) will be financing the **Merzifon Drinking Water Sub-Project** in Amasya Province.

The scope of the “Merzifon (Amasya) Drinking Water Sub-Project” includes: - Renewal of the water distribution network - Renewal of 4 reservoirs (3,000 m<sup>3</sup> and 3 x 2,500 m<sup>3</sup> ) - Renewal of pump lines - Construction of 3 pump stations to transfer water bw. Reservoirs - Construction of miscellaneous network structures (house connections, washout valve chambers, air relief valve chambers, flowmeter chambers, hydrants, pressure break valve chambers, branch chambers and residual chlorine measurement chambers). Total water demand in the distribution network is calculated as 236.5 l/s for design purposes by the design consultant (ASG Env. Ltd.) Per capita domestic water consumption figure is assumed as an increasing figure between 110-135 lcd. In the design, water losses is assumed to decrease to 20% with the proposed project measures. PE100 pipes (bw. Ø110- Ø355 mm) and steel pipes (Ø400 mm) shall be used in the planned network. Proposed total network length is 210,979 m. 2nd stage is planned also with Ø110- Ø 160 mm PE100 pipes with total length of 63.86 km. Considering the capacity and physical conditions of the reservoirs, it's decided to renew all the service reservoirs except the Sanayi Reservoir constructed in year 2005. It will continue to be used for the industrial area. Proposed 4 reservoirs will have 3,000 m<sup>3</sup> (DY1) and 2,500 m<sup>3</sup> (DY', DY3 and DY4) capacities. Miscellaneous pipelines from wells to reservoirs and between reservoirs are proposed in the scope of the project. Total pump line length is 30,574 m and consists 23 washout valve chambers and 20 air relief valve chambers. In order to ensure flexibility between sources (during decrease of yields in sources), 3 pump stations are proposed to be constructed near reservoirs. In the scope of the proposed project; 9,000 house connections and miscellaneous auxiliary network structures including pressure break valve chambers, pressure air tanks, residual chlorine chambers, flowmeter chambers, air relief valve chambers, washout valve chambers, chlorinators, branch chambers and miscellaneous crossings (horizontal drilling highway crossings and bridge crossing) shall be constructed.

## **1.2 Institutional Roles:**

ILBANK will act as the Financial Intermediary (FI) who receives a Loan from the World Bank, of which it will allocate a part to Merzifon Municipality for financing environmental infrastructure investments (Sub-Project).

Merzifon Municipality is responsible for the construction and maintenance of all environmental infrastructure investments in its service area. Merzifon Drinking Water Project is in the scope of Merzifon Municipality who will be the Client for the sub-project that the Consultant will be carrying out.

Merzifon Municipality will be responsible for sub-project investment implementation and will set up municipal project implementation units (PIUs) at local level to ensure effective sub-project implementation.

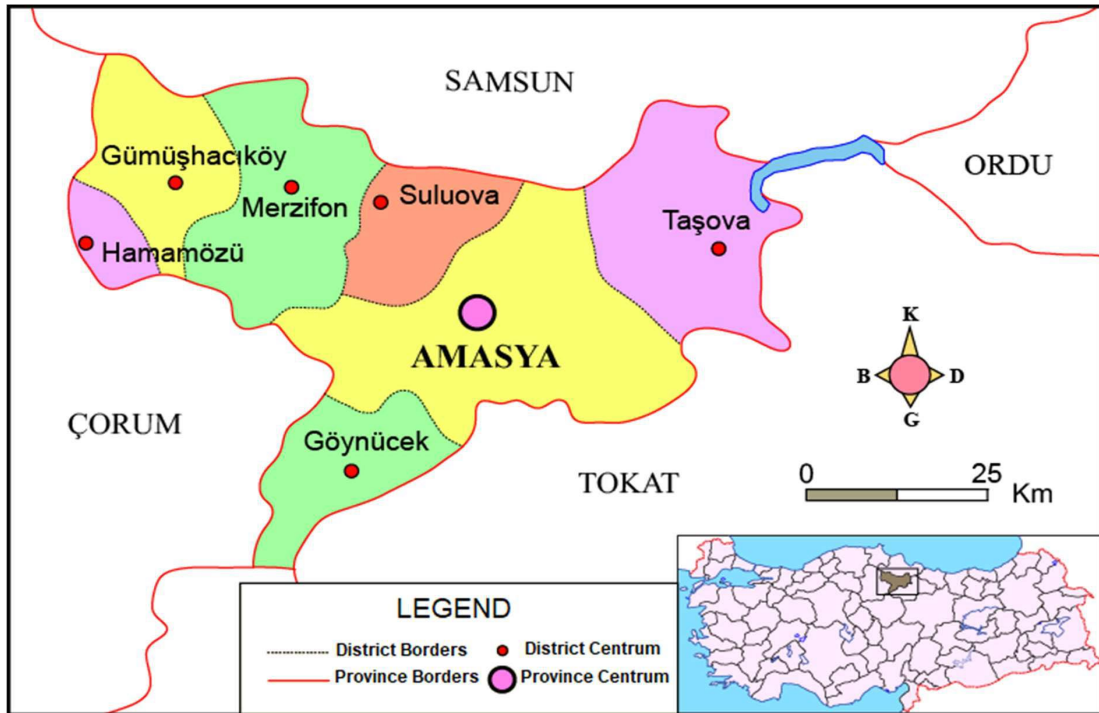
The procurement processes for the works and consultancy services within the scope of the Sub-Project will be under the responsibility of Merzifon Municipality and under the coordination and monitoring of the ILBANK.

## **1.3 Sub-Project Area:**

Proposed project will serve Merzifon District (Sub-province) Centrum of Amasya Province. Amasya Province is located in middle Blacksea region and Merzifon district is located in the west of Amasya Province. Çorum is located in the south of the district, Samsun in the north, Gümüşhacıköy and Hamamözü districts in the west and Suluova in the east. Merzifon is 47 km far from the Amasya centrum, 67 km from Çorum, 115 km from Samsun, 310 km from Ankara and 625 km from İstanbul. Merzifon district centrum is located on Merzifon Plain irrigated by Tersakan Stream, which joins Yeşilirmak near Amasya. The altitude of Merzifon centrum is 740 m. The north and west of the district are mountainous and the middle and eastern parts are plains. District's total area is 972 km<sup>2</sup>. The slope of the district centrum is inclined from North to South.

The sub-project will be implemented at the center of Merzifon mostly, a small part of the sub-project will be executed Karamustafapaşa and Karatepe Districts.

Figure-1: Merzifon Province and its Districts



## 2 Objectives of the Assignment

Consultancy services for design review, preparation of bidding documents (technical specifications, bill of quantities, etc), and provision of Technical Assistance during the Bidding Process for the construction works of the below environmental infrastructure investments constitute the scope of Services of this Contract in general:

- Merzifon Drinking Water Project

Further details of the Scope of Services will be outlined in the following Sections of this Terms of Reference.

### 2.1 Sub-Project Descriptions:

The Consultant shall be responsible for the following subprojects:

#### **Merzifon Drinking Water Project**

##### 2.1.1 Information / Data to be provided to the Consultant:

All of the above-mentioned projects have their own Project Information Documents (PID) and have full set of drawings. The designs to be reviewed within the scope of this Consultancy Services had been prepared by local consultant firms under the administration of Merzifon Municipality. Both PIDs and drawings will be provided to the Consultant as part of this Terms of Reference in electronic format.

As a part of the Environmental and Social Assessment, Environmental and Social Management Plan (ESMP), Stakeholder Engagement Plan (SEP), Resettlement Plans (RP) and Ex-post Social Audit of

these sub-projects are being prepared according to project specifications in full compliance with the World Bank Safeguards Operational Policies.

### **3 Scope of the Services:**

The Scope of Services of the Consultant under this Contract is as follows:

#### **TASK 1: TO CARRY OUT THE DESIGN REVIEW**

The Consultant shall review, complete and finalize all existing designs (civil, mechanical, electrical, infrastructure drawings including all lines, man-holes, gratings, house connections, all related auxiliary works and all related structures etc.) including all required calculations, sketches and/or drawings, details and specifications of the project components and submit to the Client for approval. The required calculations shall include the process and hydraulic calculations.

As a result of the Consultant's review of the existing designs, re-design will be done by the Consultant (if needed). In addition to this, the consultant will carry out the following studies:

- Drawings, shall be corrected by the Consultant when / if necessary
- Consultant shall complete the designs/sketches and prepare detailed designs when / if necessary.
- The existing designs shall be adopted according to legislations in force. If there is non compliance with the legislations, the Consultant shall adopt drawings accordingly.
- If there are missing drawings these should be prepared by Consultant,
- if there are missing detail drawings these should also be prepared by Consultant

Since any delay in the review and the completion of the designs and related documents will directly affect planned commencement date for construction works and construction period, the Consultant will complete and finalize all designs and documents with due care and diligence during the envisaged periods so as not to cause any delay. The Consultant is supposed to be in strong liaison with the Client and provide economical, efficient solutions.

#### **The selected Consultant will perform the following tasks:**

- a. The Consultant shall check/review all the designs and the construction drawings to ensure that they are adequate for competitive construction bids, and for executing the work.
- b. The Consultant will verify the compliance of the designs and construction documents with the most recent EU/TR legislations and regulations. In case there are any non-compliance with the latest Turkish legislations, the Consultant should adopt the drawings accordingly. The Consultant shall also make sure that the documents are in compliance with the good international practice and EU/WB Environmental and Social Standards and World Bank Group's (WBG) General and Sector Specific Environmental, Health, and Safety (EHS) Guidelines, Environment, Social, Health and Safety (ESHS) policies.
- c. The design review will also aim to enhance the resilience of the proposed infrastructure, as appropriate, to climate change–exacerbated risks such as droughts, floods, and degraded water quality, as well as to earthquake risks.
- d. The Consultant shall prepare Technical Specifications, Unit Price Definitions, the Bill of Quantities and all tender documents, and complete the missing information in compliance with World Bank Procurement Regulation. In case of need all the required drawings and details will be prepared by Consultant.
- e. The Consultant shall check that the materials described in the Drawings or Technical Specifications are not single source materials and suitable for the Project.
- f. Specific requirements and specifications of Ministry of Environment, Urbanization and Climate Change (MoEUCC) and ILBANK shall be considered and the designs shall be checked whether these criteria are reflected in the designs.
- g. The Consultant shall obtain, if needed pursuant to the legislations/regulations the consent/approval of the relevant Authorities and/or their local branches to the revised final designs before submitting those for approval to the Client.

- h. The Consultant whether required by the Client upon its review on the submitted design/s, calculations and drawings or as a result of the reviews done by the Consultant himself shall revise designs/details or provide additional design/details as per the comments and recommendations of the Client. The consultant should also revise the designs if needed as an outcome of the E&S assessment. This is as of the normal development of the project and no additional cost to the Client.
- i. The Consultant will assist and provide the necessary technical information about the projects to the Client/ILBANK for their assessing the energy efficiency and Greenhouse Gas (GHG) Emissions and Calculations if requested by the Client/ILBANK

**The Consultant shall be liable and responsible for the technical viability, accuracy and content of the design drawings and documents including but not limited to all required calculations, drawings, details, analysis and specifications of the project components. The Consultant shall be responsible to develop complete set of technical documents to achieve successful bidding process and contract implementation.**

**TASK 2: TO PROVIDE TECHNICAL ASSISTANCE TO THE CLIENT:**

- a. in the Preparation of Bidding Documents of the given investments
- b. in the Bidding & Evaluation and Contract Award Stages

**In line with Task 2a of this Terms of Reference:** the Consultant shall prepare the complete bidding documents of the following construction work under: Merzifon Drinking Water Project

In accordance with the World Bank Procurement Regulations for IPF Borrowers – July 2016 revised in November 2017, August 2018 and November 2020 (“Procurement Regulations”). The agreed methods for these contracts in the approved Procurement Plan is envisaged and approved as “Request for Bids” open to national market. If the bidding is open to national market, the language of the bidding documents will be Turkish. When the cost estimates are updated, the procurement methods for these contracts could change as “Request for Bids” open to international market. If such case occurs, the language of the bidding documents will be English. Documents shall include but not limited to the Conditions of Contract, Form of Bid, Technical Specifications, Bill of Quantities (BoQ’s), final designs, system/detailed drawings and etc. Environmental and Social Management Plans (ESMPs), Stakeholder Engagement Plans (SEPs) and RP/Ex-post Social Audit study documents mentioned in section 2.1.1 shall be included in the bidding documents.

The Consultant shall prepare the Bidding Documents in accordance with the Bank’s Standard Bidding Documents (included but not limited to General and Particular technical specifications for each works component (civil, mechanical, electrical, etc.), BoQs, pricing preambles, unit price descriptions, unit price analysis etc.) in close cooperation with Merzifon Municipality and with due care and diligence. Any of the items in these documents shall not contradict with each other and all material specifications shall be in accordance with the specifications of the Turkish standards and/or international standards.

The Consultant shall prepare cost estimate studies in detail for each contract package in compliance with unit price lists & guidelines of İLBANK/MoEUCC and/or other relevant state authorities and market prices as well.

The Consultant shall prepare the designs, plans, technical specifications, BoQ’s, tender documents etc. and all additional documents, detailed designs in such a way that the necessity for variation orders during the construction stage is minimized. The Consultant shall be responsible to develop a set of complete bidding documents (with all commercial and technical content) for successful completion of the bidding process and contract implementation with a consideration given to the Project implementation schedule.

The Consultant shall make any reasonable modification to documents, reports, etc. irrespective of its/their being approved by the Client during the various stages of approval.

**In line with Task 2b of this Terms of Reference:** The Consultant shall provide technical assistance throughout the bidding process conducted for the procurement of the works, including preparation of clarifications/addendum if deemed necessary, assisting the Client during the pre-bid meeting and site

visits, responding to questions about the technical designs and any other bidding documents technical evaluation of the bids, drafting of technical input to evaluation reports and the contract. The responsibility of the Consultant shall continue until the successful conclusion of every and each contract tendered.

If for any reason any of the contract/s could not be concluded for the first round of the bidding, the Client upon consultation with ILBANK and World Bank may consider (i) to rebid the contract/s on its own without any further input from the Consultant or (ii) to amend the Contract as per the Contract for the extended duration by second round of the Bidding Process. The Consultant shall not be entitled for any compensation or payment during such period unless Parties agree for additional input from the Consultant during second round of bidding. If such duration exceeds six (6) months, both Parties will agree on the path forward in writing.

**4 General Obligations and Tasks of the Consultant:**

**General**

- a. To carry out its duties and responsibilities by suitably qualified engineers and other professionals (experience of staff has been stated at Section-8 Key Expert Section) who are competent to carry out the duties described within this document.
- b. To co-operate with the other consultants and join the meetings whenever required by the Client.
- c. To carry out all the Services with all due diligence, care and in timely manner so as not to cause any delay. It is deemed that the Consultant familiarized himself with the nature of Project and is expected to take all sorts of precautions during the performance of Services to fulfil his tasks in a timely manner and to get the works completed by the Contractor/s on time.
- d. To assist in updating the procurement plan of Sub-Projects as per the approved/revised work schedules of the planned Construction Contracts/Contractor/s and his Contract.

**5 Time Schedule**

During the courses of the services, it should be noted by the Consultant that prepared designs/details/calculations/reports/specifications and other documents submitted to the Client for approval will be reviewed by the Client and approved or returned for revision and/or resubmission in 10 business days.

The Bidding Documents, Replies to Queries and Clarifications (if any), Addendum (if any), the Bid Evaluation Reports shall be approved by ILBANK if the contract is subject to post-review. In case that any contract is subject to prior review, these documents shall be approved by the World Bank.

The Consultant shall submit all the documents in a timely manner to complete the services on time without any delay. Time schedule for the completion of the Consultant’s services for the various parts of the work as mentioned below shall be submitted to the Client.

All activities under the Scope of Services shall be completed within 6 (six) months from the consultancy contract signing date.

Project Completion Schedule is drafted in the following table.

**6 Timetable**

Total Duration (Months)	Design Review & Tender Preparation			Tender Stage		
	1	2	3	4	5	6
Merzifon Drinking Water Network	1	2	3	1	2	3

## Design Review & Tender Preparation

### Tender Stage

The Consultants shall submit all the documents in a timely manner to complete the services on time without any delay. Time schedule for the completion of the consultants' services for the various parts of the Project is given below;

- **Inception Stage Report:** Within two weeks after the effective date of the Contract.
- **Design Review (Project Evaluation) Report:** Within one month after the effective date of the contract
- **Design Revisions and Final Designs/if any:** Within one months after the approval of Project Evaluation Report. It is anticipated that no major revisions would be needed; in case major revisions are needed, additional time for this task may be granted in consultation with the Client and İLBANK,
- **Preparation of Bidding documents:** Within one months after the approval of the Final Designs,
- **Tender Evaluation and Contract Signing Stage:** The Consultants shall support the Client after the bid opening date throughout the bidding process in timely manner.

### Contract Type

The contract shall be lump-sum for the activities under this ToR.

### **7 Change in The Scope of Consultant's Services:**

The Construction commencement dates for Works packages may vary due to the unexpected reasons. If no further input is required by the Client for rebidding of the respective tender/s, the Consultant shall not request any payment or compensation for the tender/s in question.

### **8 Team Composition & Qualification Requirements for the Key Experts:**

The Consultant shall typically comprise a firm with experience in carrying out similar tasks, specifically to include the following minimum qualifications;

- Experience in the last 10 years in projects financed by international financing institutions,
- Experience in the design and/or construction supervision services that are similar infrastructural projects (preferably drinking water sector) to the required services in size, similarity and complexity in the last 10 years.

The Consultant's team shall include at least the following suitably qualified engineers and other professionals who are competent to carry out the duties described within this document.

The minimum required number and experience of proposed professional staff is:

<b>Design Review, Preparation of Bidding Documents &amp; Bidding Stage</b>			
<b>KEY STAFF</b>	<b>Total Estimated Staff-Months</b>	<b>Professional Experience (Years)</b>	<b>Specific Experience on the Related Assignment (Years)</b>



Design Project Manager (Civil/Environmental Engineer)	6	>15	>10		
Design Engineer-1	2,5	>8	>5		
Design Engineer-2	2,5	>8	>5		
Process Engineer	1	>8	>5		
Survey Engineer	0,5	>8	>5		
Mechanical Engineer	1,0	>8	>5		
Electrical/Electronic Engineer	0,2	>8	>5		
Procurement Specialist (preferably engineer)	3,0	>8	>5		
Environmental Expert (Environmental Engineer)	2,5	>5	>2		
Social Expert	1,2	>5	>2		
OHS Expert	0,3	>5	>3		
<b>Sub Total</b>	<b>20,7</b>				

During this stage; the Consultant is responsible for the establishment of a design group who is experienced in the preparation of infrastructure projects. Therefore, the Consultant shall separately indicate the staff to be assigned in the review of designs and preparation of documents by indicating positions planned to be assigned for each staff in their proposal.

The description below provides further details on the roles, responsibilities, and required qualifications of the key expert positions:

**Design Project Manager** (Civil/Environmental Engineer), in addition to defining and supervising the activities of other members of the consultancy team and liaising with the PIU, this key expert is expected to provide key technical inputs, conduct quality assurance, ascertain consistency of results across individual tasks, and be the day-to-day single point of contact and party ultimately responsible to the Employer for the Tasks 5 years as defined in this ToR. Civil/Environmental Engineer holding a suitable undergraduate degree (BS or above) and have at least 15 years professional experience. S/he shall have minimum 10 years of specific experience in design review in the implementation of infrastructure projects (preferably drinking water and transmission network) and minimum 5 years experience as Project Manager, Team Leader or equivalent position. The Project Team Leader shall be fluent in written and spoken English.

**Design Engineers** holding a suitable undergraduate degree (BS or above) and have at least 8 years professional experience. They shall have minimum 5 years of specific experience in design review as Design Engineer or equivalent position in the design stage of projects, preferably in drinking water sector. The Design Engineers shall be fluent in written and spoken English.

**Process Engineer** holding a suitable undergraduate degree (BS or above) and have at least 8 years professional experience. S/he shall have minimum 5 years of specific experience in design review as Process Engineer or equivalent position in the design stage of projects preferably in drinking water sector. The Process Engineer shall be fluent in written and spoken English.

**Survey Engineer** holding a suitable undergraduate degree (BS or above) and have at least 8 years professional experience. S/he shall have minimum 5 years of specific experience in design review as Survey Engineer or equivalent position in the design stage of projects preferably in drinking water sector. The Survey Engineer shall be fluent in written and spoken English.

**Mechanical Engineer** holding a suitable undergraduate degree (BS or above) and have at least 8 years professional experience. S/he shall have minimum 5 years of specific experience in design review as Mechanical Engineer or equivalent position in the design stage of projects preferably in drinking water sector. The Mechanical Engineer shall be fluent in written and spoken English

**Electrical/Electrical Engineer** holding a suitable undergraduate degree (BS or above) and have at least 8 years professional experience. S/he shall have minimum 5 years of specific experience in design review as Electrical / Electrical Engineer or equivalent position in the design stage of preferably in drinking water sector. The Electrical / Electrical Engineer shall be fluent in written and spoken English

**Procurement Specialist** holding a suitable undergraduate degree (BS or above / preferably engineer) and have at least 8 years professional experience. S/he shall have minimum 5 years of specific experience in design review as Procurement Specialist or equivalent position in the design stage of projects preferably in drinking water sector. The Procurement Specialist shall be fluent in written and spoken English

**Environmental Expert** holding a suitable undergraduate degree (BS or above / preferably Environmental Engineer) and have at least 5 years professional experience. S/he shall have minimum 2 years of specific experience in design review as Environmental Expert or equivalent position in the design stage of projects preferably in drinking water sector. The Environmental Expert shall be fluent in written and spoken English

**Social Expert** holding a suitable undergraduate degree (BS or above) and have at least 5 years professional experience. S/he shall have minimum 2 years of specific experience in design review as Social Expert or equivalent position in the design stage of preferably in drinking water sector. The Social Expert shall be fluent in written and spoken English

**Occupational Health and Safety (OHS) Expert** holding a suitable undergraduate degree (BS or above) and have at least 5 years professional experience. S/he shall have minimum 3 years of specific experience in design review as Occupational Health and Safety (OHS) Expert or equivalent position in the design stage of projects preferably in drinking water sector. The Occupational Health and Safety (OHS) Expert shall be fluent in written and spoken English

## **9 Reporting Requirements and Time Schedule for Deliverables:**

### **Monthly Reports**

The Consultants shall prepare and submit to the Client various reports, drawings and document that are specified in or that are implied from these Terms of Reference in respect of various components of the Projects as described in the Terms of Reference.

These reports, drawings and other documentation relate to the various stages of the Consultants' Services including, but not necessarily limited to;

- Inception (Assessment)
- Design Review and revisions if any
- Bidding Documents, Technical specifications (including BoQs and cost estimates)

The requirements for the submission of reports, drawings and other documentation are given below. Reports shall be prepared in both Turkish and English languages. The metric system of weights and measures shall be used.

Submission shall be as follows:

Format of Reports: A4 or A3, including where appropriate drawings reduced to A3 size.

Format of Drawings: A1 and/or A0 size.

A draft copy (3 in Turkish, 1 in English) of all reports shall firstly be submitted to the Client for discussion purposes following which the Consultant shall be required to prepare the final copy, incorporating any amendments arising from such discussions.

### **Design Review, Preparation of Bidding Documents and Bidding Stage**

<b>No</b>	<b>Report</b>	<b>Last Submission Date</b>	<b>English (hard copy)</b>	<b>Turkish (hard copy)</b>	<b>Soft Copies</b>
0	Inception Report	Within one month after the effective date of the contract	1	3	1
1	Project Evaluation (Design Review) Report (Hard copy)	Within one month after the effective date of the contract	1	3	1
2	Preparation of incomplete reports and final designs i. Number of copies of reports ii. Number of copies of drawings	Within 2 months after the approval of Project Evaluation Report	1	3	1
3	Preparation of Bidding Documents (Number of copies of Bidding/Contract Documentation for each Contract for Works Packages including all subsequent amendments issued during tender stage)	Within one months after the approval of the Final Designs	1	20	20
4	Technical input to Bid Evaluation Report for each contract under this Terms of Reference	Within two weeks after receipt of the respective bid/s.	1	3	1

After approval of the whole services, below documents shall be delivered:

1. Approved drawings by the Client (4 hard copies (3 Turkish, 1 English) and electronic folders) for each tender
2. Tender Documents of all contract packages (20 hard copies and electronic folders) for each tender (the language of the Bidding Documents shall depend on the agreed procurement method in the Procurement Plan. If the procurement methods for any contract changes as "Request for Bids" open to international market according to the cost estimates, the language of the bidding documents will be English. Accordingly, number of the hard copies will be as follows: 20 in English, 1 in Turkish.)

The Consultant will also submit soft copies of all reports, projects and tender documents following their approval.

Those of the documents and reports not mentioned above but either specified or implied in the contract shall be submitted in 3 copies in Turkish and one (1) copy English languages each.

In relation to the ongoing stages of the Consultancy Services, the submission requirements given above should be followed by the Consultant as a guideline for the extent and type of documentation that will be required by the Client during the performance of the Services. However, the Consultant shall allow in its fee for the submission of all reports, drawings, documents, etc. either specifically requested in these Terms of Reference or those that may be implied there from and the Contractor/s' contract/s. The Client may however vary such requirements during the course of the Services to be performed.

Should additional copies be required extra over to those stated above or to be implied from these Terms of Reference, these shall be supplied by the Consultant(s) at the cost of reproduction of such documents, reports or drawing. Additionally, after finalizing the reports, these shall be submitted to the Client in one (1) set of CD and in the software format acceptable by the Client. Each copy shall be durably bound in a volume or volumes depending on bulk, and the transparent copies shall have a suitable protective cover/box. All copies shall be labeled in accordance with the needs of the Client.

## **10 Client's Input and Counterpart Personnel:**

The Client will timely provide to the Consultant the inputs and facilities, assist the firm in obtaining licenses and permits needed to carry out the services, and make available relevant project data and reports.

The following items shall be provided free of charge by the Client to the Consultant: The existing designs, maps, topographic plans, analysis results, relevant documents and reports of the design drawings etc. The Consultant shall return all such drawings and documents received to the Client upon the completion of services.

In addition, the Client shall, where possible, assist the Consultant in obtaining approvals, permissions from the State Authorities in respect of the Services to be performed.

The Consultant shall not be required to deliver any equipment and materials provided by the reimbursable expenses and which have been used for the Services to the Client. All local transport for the Consultant staff shall be provided by the Consultant and shall be included in the proposal submitted.

## REPUBLIC OF Türkiye

### MERZIFON MUNICIPALITY

#### Sustainable Cities Project 2 - Additional Financing (SCP2-AF)

# TERMS OF REFERENCE

## Consultancy Services for Site Supervision for Environmental Infrastructure Projects

### 1 Introduction and Background

In Türkiye, cities have made major contributions to the country's substantial economic growth and development over the past few decades. They have helped boost economic productivity and today contribute over 92 percent of the country's value added. With the rapid urbanization after 1980, cities in Türkiye host over 90 percent of the country's population today, compared to only 25 percent in 1950. This urbanization, together with macroeconomic and fiscal stability, were at the heart of the country's strong performance, leading to increased employment and incomes.

Besides a growing urban population, Türkiye also has a growing number of cities with a population of over 300,000—27 by 2018. This number is expected to increase to 33 by 2050. The manner in which Turkish cities grow will have implications on how they consume natural resources and how susceptible they will be to future resource constraints. A city without a strong planning framework can sprawl and consume large areas of land with infrastructure needs that can be costly and inefficient to deliver. Moreover, cities with inadequate public transit systems force citizens to use private vehicles that cause congestion, air pollution, and carbon emissions, with negative impacts on the environment and human health. Water supply systems with high losses can represent a serious cost to the country's dwindling water sources, and untreated wastewater can contaminate land and water sources, making them a risk to environmental health. Cities are also a major consumer of electricity, which presents a critical challenge given Türkiye's energy dependence and reliance on energy imports.

To mitigate the potential risk mentioned above; and to increasingly support multisectoral system, and resilient thinking toward urban development, İLBANK has developed and implementing the Sustainable Cities Program (Program) with the support of the World Bank.

The Program aims to help municipalities: (i) respond to current and increasing demands for urban services; (ii) plan for future infrastructure service needs in a sustainable manner; (iii) mobilize financing to fund priority investment; and (iv) adhere to new spatial planning mandates and infrastructure service requirements as prescribed by the amended Metropolitan Municipality Law No 6360 in December 2012.

The main goal of the Program is to improve access to targeted municipal services in participating municipalities and utilities. It will support improvements to the environmental, economic, financial, and social sustainability of Turkish cities by improving access to priority municipal services.

The Program was designed as a series of projects (SOP). The SOP finances demand-driven municipal and utility infrastructure investments, with eligible sectors including, but not limited to, public transport, water and wastewater, solid waste management, and energy.

Within the context of SOP, since the funds under the first two Sustainable Cities Projects (SCP-1 and SCP-2) have fully committed to sub-projects for the participating municipalities/utilities, the Additional Financing (AF) to SCP2 (SCP2-AF) has emerged to provide additional funds to meet the significant increase in demand from municipalities, as well as to facilitate the scale-up of municipal subprojects in a broader number of municipalities and sectors. This exceptional demand includes identification of investments to improve public transport, water and sanitation, solid waste management, energy, environment, disaster and climate resilience and social infrastructure. The SCP2-AF will allow İLBANK to support municipalities in financing priority projects in the immediate term. It will also support İLBANK,

the Government of Türkiye and the World Bank to expand the sustainable cities approach both sectoral and spatially which will increase Program's impact and development effectiveness.

Currently, municipalities have limited financial capacity to design and implement climate- and resilience-related investments, which is recognized as one of the key constraints for climate action in Türkiye. The Program provides the opportunity to build capacity for screening, preparing, and implementing projects which consider climate and disaster resilience, particularly in terms of addressing increasing risks of extreme weather events and more frequent and intense flooding in low-lying areas of river deltas and coastal cities, and increasing difficulties in managing urban water resources during more intense and lengthy drought periods. The AF provides the means to invest in mitigation and strengthening a range of such climate adaptation measures in cities, which are increasingly susceptible to climate change risks.

The Sustainable Cities Project-2 aims to provide resources to Ilbank to meet a significant increase in demand from municipalities for participation in the series of Project and to improve public transport, water and wastewater, solid waste management, Access to renewable energy, energy efficiency of buildings and infrastructure, environmental protection, disaster and climate resilience and enhanced social infrastructure.

The Loan Agreement for SCP2 -AF for EUR 500 Million was signed on July 10, 2019 between the World Bank and ILBANK. The loan became effective on November 5, 2019.

SCP2-AF consists of two components as described below:

#### **Component A: Municipal Investments**

This component will be scaled up to finance demand-driven municipal infrastructure investments to improve access to quality, sustainable and resilient public transport, water and wastewater, solid waste management, disaster risk management, energy efficiency and renewable energy, and improve the urban environment, municipal firefighting services, and social infrastructure and services. Component A would finance goods, works, and non-consulting and consultant services, including the hiring of local technical consultants for engineering design and construction supervision.

#### **Component B: Project Management**

This component will finance goods, consulting services related to day-to-day Project management, M&E, reporting, and project communications.

The project will seek to achieve the following results, in line with the project development objectives and activities:

- (a) Improved access to safely managed water supply services;
- (b) Improved access to safely managed wastewater collection / sewerage services;
- (c) Improved wastewater treatment;
- (d) Improved solid waste disposal in targeted municipalities;
- (e) safer, cleaner and more accesible urban transport systems
- (f) Reduction in energy consumption in water and wastewater utilities and other municipal infrastructures
- (g) Increase of renewable energy in municipal infrastructe and decreased carbon emission
- (h) Strengthened institutional capacity to manage municipal services in municipalities and utilities.

## **1.1. Sub-Project Description**

The Sustainable Cities Project 2 (Additional Financing Loan) will be financing the **Merzifon Drinking Water Sub-Project** in Amasya Province.

The Scope of the “Merzifon (Amasya) Drinking Water Sub-Project” includes: - Renewal of the water distribution network - Renewal of 4 reservoirs (3,000 m<sup>3</sup> and 3 x 2,500 m<sup>3</sup>) - Renewal of pump lines - Construction of 3 pump stations to transfer water bw. reservoirs - Construction of miscellaneous network structures (house connections, washout valve chambers, air relief valve chambers, flowmeter chambers, hydrants, pressure break valve chambers, branch chambers and residual chlorine measurement chambers) Total water demand in the distribution network is calculated as 236.5 l/s for design purposes by the design consultant (ASG Env. Ltd.) Per capita domestic water consumption figure is assumed as an increasing figure between 110-135 lcd. In the design, water losses is assumed to decrease to 20% with the proposed project measures. PE100 pipes (bw. Ø110- Ø355 mm) and steel pipes (Ø400 mm) shall be used in the planned network. Proposed total network length is 210,979 m. 2nd stage is planned also with Ø110- Ø 160 mm PE100 pipes with total length of 63.86 km. Considering the capacity and physical conditions of the reservoirs, it's decided to renew all the service reservoirs except the Sanayi Reservoir constructed in year 2005. It will continue to be used for the industrial area. Proposed 4 reservoirs will have 3,000 m<sup>3</sup> (DY1) and 2,500 m<sup>3</sup> (DY', DY3 and DY4) capacities. Miscellaneous pipelines from wells to reservoirs and between reservoirs are proposed in the scope of the project. Total pump line length is 30,574 m and consists 23 washout valve chambers and 20 air relief valve chambers. In order to ensure flexibility between sources (during decrease of yields in sources), 3 pump stations are proposed to be constructed near reservoirs. In the scope of the proposed project; 9,000 house connections and miscellaneous auxiliary network structures including pressure break valve chambers, pressure air tanks, residual chlorine chambers, flowmeter chambers, air relief valve chambers, washout valve chambers, chlorinators, branch chambers and miscellaneous

## **1.2. Institutional Roles:**

ILBANK will act as the Financial Intermediary (FI) who receives a Loan from the World Bank, of which it will allocate a part to Merzifon Municipality for financing environmental infrastructure investments (Sub-Project).

Merzifon Municipality is responsible for the construction and maintenance of all environmental infrastructure investments in its service area. Merzifon Drinking Water Project is in the scope of Merzifon Municipality who will be the Client for the sub-project that the Consultant will be carrying out.

Merzifon Municipality will be responsible for sub-project investment implementation and will set up municipal project implementation units (PIUs) at local level to ensure effective sub-project implementation.

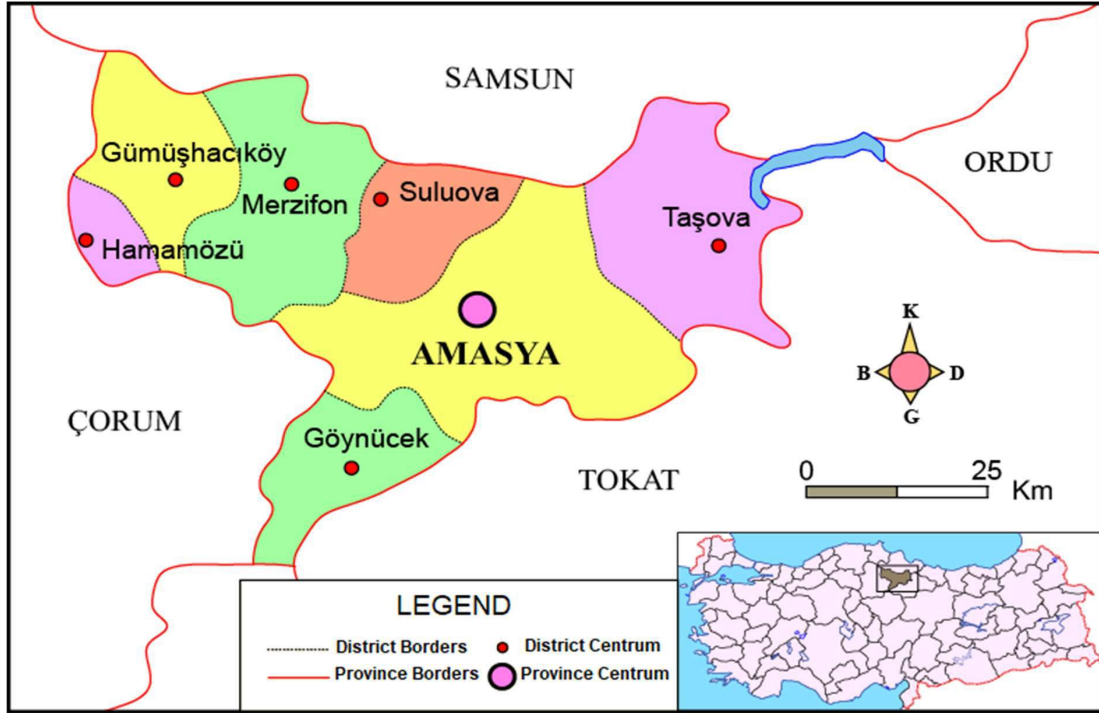
The procurement processes for the works and consultancy services within the scope of the Sub-Project will be under the responsibility of Merzifon Municipality and under the coordination and monitoring of the ILBANK.

## **1.3. Sub-Project Area:**

Proposed sub-project will serve Merzifon District (Sub-province) Centrum of Amasya Province. Amasya Province is located in middle Blacksea region and Merzifon district is located in the west of Amasya Province. Çorum is located in the south of the district, Samsun in the north, Gümüşhacıköy and Hamamözü districts in the west and Suluova in the east. Merzifon is 47 km far from the Amasya centrum, 67 km from Çorum, 115 km from Samsun, 310 km from Ankara and 625 km from İstanbul. Merzifon district centrum is located on Merzifon Plain irrigated by Tersakan Stream, which joins Yeşilirmak near Amasya. The altitude of Merzifon centrum is 740 m. The north and west of the district are mountainous and the middle and eastern parts are plains. District's total area is 972 km<sup>2</sup>. The slope of the district centrum is inclined from North to South.

The sub-project will be implemented at the center of Merzifon mostly, small part of the sub-project will be executed Karamustafapaşa and Karatepe Districts.

Figure-1: Merzifon Province and its Districts



## 2. Objectives of the Assignment

Consultancy services for design review, preparation of bidding documents (technical specifications, bill of quantities, etc), and provision of Technical Assistance during the Bidding Process for the construction works of the below environmental infrastructure investments constitute the scope of Services of this Contract in general:

- Merzifon Drinking Water Project

Further details of the Scope of Services will be outlined in the following Sections of this Terms of Reference.

### 2.1. Sub-Project Descriptions:

The Consultant shall be responsible for the following subprojects:

#### **Merzifon Drinking Water Project**

##### 2.1.1. Information/Data to be provided to the Consultant:

All of the above-mentioned projects have their own Project Information Documents (PID) and have full set of drawings. The designs to be reviewed within the scope of this Consultancy Services had been prepared by local consultant firms under the administration of Merzifon Municipality. Both PIDs and drawings will be provided to the Consultant as part of this Terms of Reference in electronic format.

As a part of the Environmental and Social Assessment, Environmental and Social Management Plan (ESMP), Stakeholder Engagement Plan (SEP), Resettlement Plans (RP) and Ex-post Social Audit of these sub-projects are being prepared according to project specifications in full compliance with the World Bank Safeguards Operational Policies.



### 3. Scope of the Services:

The Scope of Services of the Consultant under this Contract is as follows:

#### **TASK 3: TO PROVIDE SUPERVISION SERVICES DURING THE CONSTRUCTION STAGE AND DEFECTS LIABILITY PERIOD**

The Consultant shall be responsible to carry out all the duties and responsibilities attributed to the "Project Manager" or "Engineer" in the General Conditions of Contract (GCC), Particular Conditions of Contract and Part 2 – Work's Requirements Sections of the World Bank's Standard Procurement Document - **Request for Bids Small Works** (If needed as a result of the cost estimates, the Standard Procurement Document could change). The Supervision responsibility of the Consultant shall be for all the Works Contracts signed as a result of the bidding processes concluded under this Contract and shall continue until the expiration of the Defects Liability Period/Warranty Period. Significant issues shall be subject to approval of the Client as indicated in the terms and conditions of the General Conditions of Contract (GCC) and Particular Conditions of Contract (PCC) of the respective works contract.

As an addition to these tasks as the Project Manager, the Consultant shall:

- a. Follow-up and inform the Client about progress of the work and activities, attend any meetings reasonably convened by the Client and provide any information or evidence reasonably required by the Client at any public meetings or inquiries that might be held in connection with the Project.
- b. Follow-up and inform the Client about the cost and time impact and any other consequences of any sort of his proposals (such as revisions, recommendations, etc.). In case of an arbitration in the Works Contract/s, to assist the Client in the preparation of the documents needed by the Client.
- c. As in compliance with the format and ingredients determined by the Client, prepare monthly and quarterly progress reports in comparative with Contractor/s' original (initial) work schedules and inform the Client in written for delays.
- d. Based on the approved work schedule and cash flows of the Contractor/s; monitor the progress compared to the initially envisaged plan/s and inform the Client about the failures in advance and propose mitigation measures to prevent further failures.
- e. During all kinds of material approval process: establishment and acceptance of factory and material acceptances, determination and approval of the institutions or organizations (laboratories, universities, etc.) where the tests are to be conducted, approval or rejection of the materials, manage the use of approved materials at site and removal of unauthorized materials from the site and follow.
- f. Randomly collect material samples and perform relevant tests and analyzes at specified intervals without waiting the written mandate of the Client.
- g. Keep accurate and detailed site records.
- h. For construction works, conduct conformity monitoring of Environmental and Social liabilities including Occupational Health and Safety (OHS) issues mentioned in the Environmental and Social Management Plan (ESMP). All regular reporting obligations mentioned in these documents shall be followed for the construction activities.
- i. Ensure implementation of ESMPs, LMP, RAPs/Ex-Post Social Audit Reports and SEPs as required, in a manner acceptable to the World Bank and make sure that no construction activity shall commence before the land acquisition process completed for the privately-owned land and permits/licenses received to use/transfer rights of public lands.

- j. Follow up the grievance mechanism mentioned in Sustainable Cities Project 2- Additional Financing Environmental and Social Management Framework (ESMF)<sup>1</sup> and Resettlement Policy Framework (RPF)<sup>2</sup> and these issues should also be included in the progress reports to be prepared.

The Services will be carried out under the following Parts:

**Part 1: Tasks prior to start of construction works will include but not be limited to:**

- a. Review the qualifications of the proposed key management personnel of the Contractor/s and make appropriate recommendations to the Client;
- b. Ensuring submission of the Quality Assurance (QA) Plan submitted by the Contractor, checking and approving its compliance with the contract requirements;
- c. Receive from the Contractor/s, check for compliance with contract requirements and advise the Client on all performance securities, insurance certificates or policies and guarantees relating to the contract before submitting to the Client for acceptance;
- d. Before the start of works review and approval of mobilization plan,
- e. Before the start of works review and approval of construction methodology and material procurement schedule
- f. Before the start of works review and approval of Contractor's Health & Safety Plan
  
- g. Before the start of the works and during the works, facilitate any communication and attend any meeting between Contractor/s and the owners of facilities (water, telephone, electricity, gas) sharing the road right-of-way; in particular, give advice on proposed modifications by the owners of facilities;
- h. Ensuring the submission of site mobilization and layout plans by the Contractor, checking and approving their compliance with the contract requirements;
- i. Ensuring the submission of method of statements and work schedule by the Contractor, checking and approving their compliance with contract requirements;
- j. Ensure that Environmental and Social (ES) provisions and OHS provision set out in the contract documents are respected including to check if the necessary E&S capacity (including OHS) is provided by the contractor – e .g. one full time environmental specialist, one social specialist, two OHS specialists, etc.
- k. Ensuring submission of all sub-management plans addressed in sub-project specific E&S assessment reports including OHS Management plans, traffic management plans, and other required E&S management plans submitted by the Contractor, checking and approving their compliance with the contract requirements before commencing the works;
- l. Ensuring the submission of material and equipment procurement program submitted by the Contractor, checking and approving their compliance with the contract requirements;
- m. Check correctness of coordinates and levels of all survey reference markers and require the Contractor/s to make an independent check;

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<sup>1</sup> <https://www.ilbank.gov.tr/sayfa/cevresel-ve-sosyal-yonetim-cercevesi-1>

<sup>2</sup> <https://www.ilbank.gov.tr/sayfa/arazi-edinimi-ve-yeniden-yerlesim-cerceve-dokumani-1>

- n. Check the Contractor/s' setting out and levels of the designed works;
- o. Verify estimated quantities in the Bills of Quantities and promptly advise the Client of any prospective Time and Cost effects and make appropriate recommendations;
- p. measures for the proper implementation of LMP and SEP including the grievance mechanism

**Part 2: Tasks during construction will include but not be limited to:**

**2.1 Supervision tasks**

- a. Approve and monitor the Contractor/s' work program and the source of materials;
- b. Approve and monitor the implementation of the Contractor/s' Quality Assurance/Quality Control (QA/QC) Plan ;
- c. Explain and/or adjust ambiguities and/or discrepancies in the Contract Documents;
- d. Inspect for approval all working drawings and as-built drawings prepared by the Contractor/s;
- e. Supervise inspection and testing of materials and works to ensure compliance with specifications, and/or removal and substitution of improper materials and/or work as required;
- f. Ensure the Contractor/s' compliance with the agreed Environmental and Social Impact Assessment and/or Environmental and Social Management Plan; to control and appraise the progress of the works, to order suspension of works and to authorize, with the Client's approval, extensions of the period for completion of the works; The Consultant shall take necessary measures for environmental, social, and occupational health and safety aspects. In this context the most recent Turkish environmental and safety regulations as well as the Client and WB Environmental and Social Standards and WBG's General and Sector Specific EHS Guidelines, Environment, Social, Health and Safety (ESHS) policies are required to be taken into consideration particularly during the supervision of the construction works. Within this scope, Consultant shall also be responsible for the supervision of the Contractor/s' environmental and social management practices/plans (grievance mechanism, stakeholder engagement, waste management, noise, occupational health and safety, resettlement action plan etc.) and ESHS obligations and report to the Client in his monthly progress reports. The details of the Environmental, Social, Health and Safety (ESHS) Management and the responsibilities of the "Consultant" shall also be detailed in the Contractor/s' contract. The Consultant shall have the responsibility for relevant supervision, oversight and instruction of the applications to the Contractor/s.
- g. Provide assistance in administering and resolving grievances;
- h. Issue interim certificates for payment to the Contractor/s on the basis of measured work items or to certify the completion of the works or parts thereof;
- i. Carry out generally all the duties of the Project Manager/Engineer as specified in the Contract, within the limitations specified therein;
- j. Advise the Client on all matters relating to additional works, scope change, variations, and claims reported by the Contractor/s and make recommendations thereon;
- k. Attend to the work inspections carried out by the State Authorities in accordance with the Turkish Law;
- l. Organize taking over and performance certificate of works and submit all supervision documents to the taking-over committee according to the Contract and Applicable Law;
- m. Issue the Certificates of Completion of the Works and Defects Liability Certificates;

- n. Assist the Client in taking over the site of the works.
- o. The Consultant will assist and provide the necessary technical information about the projects to the Client and ILBANK for their assessing the energy efficiency and Greenhouse Gas (GHG) Emissions and Calculations if requested by the Client and ILBANK.

### **Administration of Environmental, Social, Health and Safety (ESHS)**

The Consultant shall ensure that the Contractor/s' Environmental and Social (E&S) performance is in accordance with good international industry practice and delivers the Contractor/s' E&S obligations.

The ES related services include those of the Project Manager's as referred in the World Bank's Standard Procurement Document - **Request for Bids Small Works** (If needed as a result of the cost estimates, the Standard Procurement Document could change). Services to be provided by the Consultant will include but are not limited to the following:

1. review and approval of the Contractor's Environmental and Social Management Plan (C-ESMP) including all updates and revisions, as well as sub-management plans (if any) (not less than once every 6 months);
2. review and approve ESHS provisions of method statements, implementation plans, drawings, proposals, schedules and all relevant Contractor's documents;
3. review and approve ESHG provisions of any design change proposals and the implications for compliance with project specific ESMP/RAP/SEP/GRM, consent/permits and other relevant project requirements;
4. undertake audits, supervisions and/or inspections of any sites where the Contractor is undertaking activities related to the Works, in order to ensure and verify the Contractor's compliance with ESMP requirements, with and without Contractor and/or Client relevant representatives, as necessary;
5. undertake audits and inspections of Contractor's Occupational Health and Safety (OHS) provisions (including mitigation/preventive actions related to COVID19 or other communicable diseases), OHS logs and safe working environments, records of all environmental and social practices specified in the ESMP, stakeholder engagement activities carried, community liaison records including all grievances received and resolved, monitoring findings and other ESHS related documentation, as necessary, to confirm the Contractor's compliance with ESMP requirements;

The duties and responsibilities of the consultant regarding OHS management will include the following:

- a) Checking the compliance of the Contractor's OHS documents and the OHS legislation and requirements within the framework of the ESMP on a daily basis, informing the Contractor and the Employer in case of non-compliance,
- b) Ensuring that workers' health reports and personal files are complete and all relevant OHS trainings are completed, emergency drills are conducted, restricting workers' access to the field in case of detecting inappropriate working environments,
- c) Presence of an OHS specialist in areas where high-risk work is carried out (e.g., excavation, indoor work, crane work, etc.),
- d) Ensuring that the construction machinery and equipment used are in compliance with the legal legislation and preventing their use in case of non-compliance
- e) Notifying the Employer within 48 hours of any damage or accident related to the Project, including serious health and safety injuries and road accidents, that has or may have a serious adverse impact on the environment, affected communities, the public or employees, and provide adequate information on the relevant and immediate measures and measures to be taken

- f) Participating in regular OHS meetings of the contractor and contributing when necessary
6. agree on corrective action/s to be taken for minor; level 1 level 2 and level 3 non-compliances and their timeframe for implementation in the event of a noncompliance with the Contractor's ESHS obligations set out in the ESMP;
7. attend meetings including site meetings, progress meetings to discuss and agree appropriate actions to ensure compliance with ESHS obligations;
8. check that the Contractor's actual reporting (content and timeliness) is in accordance with the Contractor's contractual obligations;
9. review and critique, in a timely manner, the Contractor's ES documentation (including regular reports and incident reports) submitted to Project Manager and to provide advice to ensure the accuracy and efficacy of the documentation;
10. ensure the follow-up of the activities specified in the Stakeholder Engagement Plan (SEP) and Land Acquisition and Resettlement Policy Framework documents and the regular follow-up of the grievance mechanism, providing support to the Administration for resolving the grievances;
11. undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential ESHS issues, and report to the Client;
12. ensure no construction activity is initiated before before the implementation of the Land Acquisition and/or Resettlement Plans (land acquisition process, compensation/supports, permits/licenses for use/transfer rights of public lands, etc) to be prepared in accordance with the Land Acquisition and Resettlement Policy Framework (ILBANK, 2019) is completed in case of legal or illegal users are identified on private and/or public lands; and
13. prepare a brief monthly report that describes the work that the Project Manager's ES Key Expert/s have undertaken, the issues (including any Contractor/s' ES noncompliance) identified and the actions taken to address the issues

### **Limitations of the Consultant's Authority**

- A. The Consultant shall have no authority to relieve the Contractor/s of any of their duties and obligations under the Works Contracts.
- B. The Consultant shall note that the Client is under obligation to seek the Merzifon Municipality/ILBANK's concurrence before agreeing to or implementing any modification or waiver of the terms and conditions of the Contracts including granting an extension of the stipulated time for performance.
- C. The Consultant will seek prior written approval of the Client for the following:
  - a. issuing / approving any Payment Certificates (PC) for the Contractor/s' Advance Payments;
  - b. agreeing / instructing any changes in the project design;
  - c. approving or issuing of any Contract Variation, except in an emergency situation as determined by "Project Manager" in accordance with the Conditions of Contract;
  - d. in the event of additional work, the Consultant shall report on the relative merits of tendering vis-a-vis issuing a variation for such additional works;
  - e. approving a proposal for Variation submitted by the Contractor/s;

- f. making variations in work quantities which bring the total cost in excess of the value of the Contract Price specified in the relevant contract provisions;
- g. determining any new rate or price with respect to any Variation;
- h. approving any extension of the Intended Completion Date;
- i. approving any compensation event for any additional cost including any cost associated with extension of the Intended Completion Date;
- j. suspending the Works in accordance with the Conditions of Contract;
- k. approval of the subcontracting of any part of the works;
- l. approval of equipment manufacturers and models to be used within the scope of work.

Any response by the Project Manager/Engineer which requires Client's approval, except as otherwise expressly specified, shall be notified in writing to the Contractor within 28 days of receipt. (14 days for the Project Manager, 7 days for the Client, then 7 days for the Project Manager to consider Client's comments).

**Supervision during the Commissioning, Defects Liability and Maintenance Period:**

- a. The Consultant shall continue to be responsible for the supervision and inspection of the construction and completion of the Works during the Defects Liability Period as defined in the construction contracts. The level of supervision shall be appropriate to the scale of the works being carried out. These inspections and supervision are to ensure that works, agreed to be carried out during the Defects Liability Period, are properly carried out and have been completed and that any failure of any part of the Works has been rectified. If any defect is discovered, during this period, the Consultant shall promptly investigate the reason for it, report to the Client and take required actions to rectify the defect.
- b. A report of these inspections shall be submitted to the Client, which shall include all details of any defects, faults, accidents or breakdowns, which have occurred together with the estimated costs of repair and the time scales within which they will be completed. Moreover, the Consultant shall submit quarterly report/s summarizing all the activities during subject quarter of Defects Liability. A final report shall be submitted at the end of the Defects Liability Period giving full details of all works carried out during that period. This report shall be submitted by the Consultant to the Client at least 30 days prior to the Consultant's issuing Defects Liability Certificate for the completed Works. The Consultant will provide minimum number of technical staff acceptable to the Client during the Defects Liability Period. Defects are expected to be minimum for a competent Consultant Firm during defects liability period. (!)
- c. The Consultant is required to provide perfect supervision/inspection services during the period, to preparation of defect lists and monitor correction of defects. If required, Consultant will instruct the Contractor/s and closely inspect the repair of works in the Defects Liability Period. Until finishing of Defects Liability Period, the Consultant shall execute all interim controls, inspections. In demand of Client, the Consultant shall deal with determined defect or failure. The Consultant will inform the Client and Contractor/s in case of finding defects in interim audit/controls.
- d. The consultant should prepare and submit to the Client's approval a report providing all information about the "as-built-conditions" including calculations, drawings, specifications, final cost analysis etc.
- e. The consultant should prepare demobilization of the contractor should be as per the mobilization plan and this process should be supervised and monitored.

**4 General Obligations and Tasks of the Consultant:**

**General**

- a. To carry out its duties and responsibilities by suitably qualified engineers and other professionals (experience of staff has been stated at Section-8 Key Expert Section) who are competent to carry out the duties described within this document.
- b. To co-operate with the other consultants and join the meetings whenever required by the Client.
- c. To carry out all the Services with all due diligence, care and in timely manner so as not to cause any delay. It is deemed that the Consultant familiarized himself with the nature of Project and is expected to take all sorts of precautions during the performance of Services to fulfil his tasks in a timely manner and to get the works completed by the Contractor/s on time.
- d. Assist/Support PIU in updating the procurement plan of Projects as per the approved/ revised work schedules of the Contractor/s and his Contract.

**5 Time Schedule:**

During the courses of the services, it should be noted by the Consultant that prepared designs/details/calculations/reports/specifications and other documents submitted to the Client for approval will be reviewed by the Client and approved or returned for revision and/or resubmission in 10 business days.

The Consultant shall submit all the documents in a timely manner to complete the services on time without any delay. Time schedule for the completion of the Consultant’s services for the various parts of the work as mentioned below shall be submitted to the Client.

All activities under the Scope of Services shall be completed within 28 (Twenty-eight) months (including the Defects Liability Period) from the signature date of the first works contract within the scope of consultancy services.

Project Completion Schedule for each of the construction contract packages is drafted in the following table.

**6 Timetable**

Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Construction of Merzifon Drinking Water Project																														
Construction of Merzifon Drinking Water Project																														
DLP																														

**• Supervision of Construction and Engineering Services and Defects Liability**

Under normal conditions, the scheduled construction period is 18(eighteen) months for Merzifon Drinking Water Project and the defects liability period is 12 (twelve) months.

**Contract Type**

The contract shall be time-based for the activities under this ToR.

## 7 Change in The Scope of Consultant's Services:

The Construction commencement dates of Works may vary due to the unexpected reasons. the Consultant shall wait for the finalization of the respective tender evaluation/s and commencement of the Construction Works and shall not request any payment or compensation for the tender/s in question. In any case, The Consultant Services Contract shall be commenced concurrently upon the signature of the Works Contract/s.

If any of the Works Contracts is not tendered or is not awarded by the Client, the Client may decide:

- i. To cancel the remaining services of the Consultant for such part of the Contract. The remaining payments will not be done to the Consultant and the Consultant shall not request any payment or compensation for the cancelled parts of the Services.
- ii. In agreement with the Consultant; to suspend the remaining services of the Consultant until awarding of Construction Contract/s. In such case the Consultant shall not be paid by the Client during the period between suspension and startup date of the Construction Contract/s, and the Consultant shall not request any payment for compensation for the duration mentioned above.

At every 6 months from the effectiveness of the Contract the Client and the Consultant shall review the staff input for the next 6 months and based on the agreed staff plan the Consultant shall mobilize its personnel.

## 8 Team Composition & Qualification Requirements for the Key Experts:

The Consultant shall typically comprise a firm with experience in carrying out similar tasks, specifically to include the following minimum qualifications;

- Experience in the last 10 years in the projects financed by international financing institutions,
- Experience in the design and construction supervision services that are similar infrastructure projects (preferably drinking water) to the required services in size, similarity and complexity in the last 10 years.

The Consultant's team shall include at least the following suitably qualified engineers and other professionals who are competent to carry out the duties described within this document.

The minimum required number and experience of proposed professional staff is:

<b>For Construction Supervision of All Sub- Projects</b>			
<b>KEY STAFF MAIN CONSULTANT SITE OFFICE</b>	<b>Total Estimated Staff-Months</b>	<b>Professional Experience (Years)</b>	<b>Specific Experience on Related Assignment (Years)</b>
Project Manager (Civil Engineer)	18	>15	>10
Mechanical Engineer	4	>10	>5
Electrical/Electronic Engineer	2	>10	>5
Social Expert	2	>5	>4



Enviromental Expert	4	>5	>4
Payment Certification Control, Quality and Cost Engineer (preferably Civil Engineer)	18	>8	>5
Survey Engineer	4	>8	>4
Site Engineer	18	>8	>4
OHS Expert	18	>8	>4
<b>Sub Total</b>	88		
<b>For Construction Supervision of Defects Liability Period</b>			
<b>Sub Total</b>	<b>8</b>		
<b>TOTAL ESTIMATED KEY STAFF-MONTHS</b>	<b>96</b>		
<b>TOTAL TECHNICIAN/JUNIOR STAFF-MONTHS</b>	<b>ESTIMATED ENGINEER 36*</b>		
<b><u>Minimum Support Staff Requirement:</u></b>			
<p>Except from the key staff, in order to ensure proper supervision, <b>Two Technicians/Junior Engineers</b> for Civil Works shall be assigned: Two will be responsible from site works during the construction period.</p> <p><b>Technicians/Junior Engineers</b> will not be evaluated as key expert. The CVs of these staff will be submitted to the Client for approval after contract award.</p> <p>Following the contract award, the Technicians experienced for at least 5 (five) years or the Junior Engineers experienced for at least 4 (four) years in their respective fields shall be proposed.</p> <p>Support staff for the administration services shall be proposed additionally as required (surveyors, clerks, drivers, secretary etc. if these necessities approved by Client)</p>			

The description below provides further details on the roles, responsibilities, and required qualifications of the key expert positions:

**Supervision Project Manager (Civil Engineer)**, in addition to defining and supervising the activities of other members of the consultancy team and liaising with the PIU, this key expert is expected to provide key technical inputs, conduct quality assurance, ascertain consistency of results across individual tasks, and be the day-to-day single point of contact and party ultimately responsible to the Employer for the Tasks 5 years as defined in this ToR. Supervision Project Manager will be Civil Engineer holding a suitable undergraduate degree (BS or above) and have at least 15 years professional experience. S/he shall have minimum 10 years of specific experience in Supervision stage and 5 years experience as Supervision Project Manager especially in the infrastructure preferably in drinking water sector. The Supervision Project Manager shall be fluent in written and spoken English.

**Site Engineer** holding a suitable undergraduate degree (BS or above) and have at least 8 years professional experience. S/he shall have minimum 4 years of specific experience in Supervision stage

as Site Engineer or equivalent position in the supervision stage of projects preferably in drinking water sector. The Site Engineer shall be fluent in written and spoken English

**Payment Certification Control, Quality and Cost Engineer** holding a suitable undergraduate degree (BS or above preferably Civil Engineer) and have at least 8 years professional experience. S/he shall have minimum 5 years of specific experience in Supervision stage as Payment Certification Control, Quality and Cost Engineer or equivalent position in the supervision stage of projects preferably in drinking water sector. The Payment Certification Control, Quality and Cost Engineer shall be fluent in written and spoken English

**Survey Engineer** holding a suitable undergraduate degree (BS or above) and have at least 8 years professional experience. S/he shall have minimum 4 years of specific experience in Supervision stage as Survey Engineer or equivalent position in the Supervision stage of preferably in drinking water sector. The Survey Engineer shall be fluent in written and spoken English.

**Mechanical Engineer** holding a suitable undergraduate degree (BS or above) and have at least 10 years professional experience. S/he shall have minimum 5 years of specific experience in Supervision stage as Mechanical Engineer or equivalent position in the Supervision stage of preferably in drinking water sector. The Mechanical Engineer shall be fluent in written and spoken English

**Electrical/Electrical Engineer** holding a suitable undergraduate degree (BS or above) and have at least 10 years professional experience. S/he shall have minimum 5 years of specific experience in Supervision stage as Electrical / Electrical Engineer or equivalent position in the Supervision stage of projects preferably in drinking water sector. The Electrical / Electrical Engineer shall be fluent in written and spoken English

**Environmental Expert** holding a suitable undergraduate degree (BS or above / preferably Environmental Engineer) and have at least 5 years professional experience. S/he shall have minimum 4 years of specific experience in Supervision stage as Environmental Expert or equivalent position in the Supervision stage of projects preferably in drinking water sector. The Environmental Expert shall be fluent in written and spoken English

**Social Expert** holding a suitable undergraduate degree (BS or above) and have at least 5 years professional experience. S/he shall have minimum 4 years of specific experience in Supervision stage as Social Expert or equivalent position in the Supervision stage of projects preferably in drinking water sector. The Social Expert shall be fluent in written and spoken English

**Occupational Health and Safety (OHS) Expert** holding a suitable undergraduate degree (BS or above) and have at least 8 years professional experience. S/he shall have minimum 4 years of specific experience in Supervision review as Occupational Health and Safety (OHS) Expert or equivalent position in the Supervision stage of projects preferably in drinking water sector. The Occupational Health and Safety (OHS) Expert shall be fluent in written and spoken English

## **9 Reporting Requirements and Time Schedule for Deliverables:**

### **Monthly Reports**

The Consultant shall prepare and submit to the Client each calendar month a report satisfactory to the Client, including progress charts and photographs in color giving all information regarding the progress of the Works, actual extent and nature of the Works completed as well as details of any delay in the works, reason and remedial of the delay, any other problems relating to the Works and substantiating documentation if required. The Consultant shall also clearly indicate in the report whether the delay (if any) of any part of the Works will cause any delay in the completion of the whole Works. The Consultant should prepare an Inception Report including but limited with the Consultant's Site Supervision Procedures Manual within 3 weeks at the start of the project.

The monthly reports shall include the percentages of the Work items completed and planned, and also the actual and planned cash-flows for each work item as of the reporting period prepared in the project planning tools (such as MS Project, Primavera, etc.) accepted by the Client.

The monthly reports shall also include records of materials, equipment and plant tested with copies of the test results and, statistical evaluation of the test results in table or graphical form. Action taken with regard to poor results shall be stated.

The said report shall give a detailed review of the Works to be performed during the following month and a general listing of the works to be performed during the following two months.

The report shall also give information about personnel employment status of the Consultant.

The report will also include the environmental and social (including grievance redress mechanism) and OHS management and ESMP compliance/non-compliances followed to mitigate the environmental and social impacts of construction works, and appropriate deadlines for the completion of such nonconformities and information on closing non-compliances from previous periods.

The report shall be submitted to the Client by the tenth day of following month. Any comment by the Client on the report shall be reviewed and the report shall be modified and re-submitted to the Client within a week.

Due to the urgent nature of the project and short construction time, the Consultant shall also prepare a report in table form showing summary of cumulative progress in main work activities on weekly basis. The report shall be submitted to the Client in an acceptable format on Monday of each week via electronic mail and as hard copy.

In addition, the Consultant shall record views from at least 5 different points for the construction site, on a weekly basis, showing the progress on the site with dates and record them with acceptable format on CD and submit to the Client.

The consultant should check For WWTP's weekly footage should be taken by the Contractor with a drone at the same position.

The requirements for the submission of reports, drawings and other documentation are given below. Reports shall be prepared in both the Turkish and English languages. The metric system of weights and measures shall be used.

Submission shall be as follows:

Format of Reports: A4 or A3, including where appropriate drawings reduced to A3 size.

Format of Drawings : A1 and/or A0 size.

A draft copy (Turkish 3, English 1) of all reports shall firstly be submitted to the Client for discussion purposes following which the Consultant shall be required to prepare the final copy, incorporating any amendments arising from such discussions.

### **Construction Supervision & Completion and Defects Liability Stages Reporting Requirements**

**1-**The Consultant shall prepare minutes of meetings, reports, documents, and several documents for the activities of the project. Aim of these documents is to record the important milestones and activities of the project. These documents will be used to support reports for the Client.

**2-**Below documents shall be prepared:

**2.1-**Weekly minutes of meetings for each construction contract.

**2.2-**Monthly reports (contains summaries for the activities of construction site, including but not limited to physical progress, financial progress, 3 months – 6 months projections of physical and financial progress, cash flow and time schedule, etc, and the Consultant's Merzifon office activities).

**2.3-**Quarterly reports for summarizing activities, including but not limited to project plan, cash-flow information, and environmental and social aspects covering the previous three months period. In terms of environmental and social aspects, the quarterly reports should cover the status of Environmental and Social performance in compliance with the ESMF and RPF for SCP-II-AF (including the subproject-specific ESIAs, ESMPs, RAPs, SEPs, and grievance redress mechanism).

**2.4-**Support the preparation of the quarterly progress reports by Utility's Project Implementation Unit (PIU) for all sub-project sites and monitor quality of reporting throughout the duration of works.

**2.5-**Construction Completion Reports.

**2.6-**Final Completion of Contract Report that combines sections of contract completion report in a single report also including additional information for completion of construction works.

The Consultant shall submit his reports in compliance with the below table.

No	Report	Last Submission Date	English	Turkish
1	Monthly Progress Reports	In the first week of current month (for the past month activities) after signing of each construction contract	1	3
2	Quarterly Reports	Second week of the month after each quarter period of each works contract	1	3
3	Construction Completion Report	Four weeks upon the issue of a Certificate of Completion (Taking Over Certificate) of each works contract.	1	3
4	Interim Inspection Reports	Two weeks following up of each interim audit in Defects Liability Period of each works contract	1	3
5	Contract (Final) Completion Report	4 (four) weeks upon the issue of a Final Acceptance (Performance) Certificate of each works contract	1	3

The Consultant will also submit soft copies of all reports, projects and other documents following their approval.

Those of the documents and reports not mentioned above but either specified or implied in the contract related to the Construction Supervision Stage and Completion and Defects Liability Period shall be submitted in 3 copies in Turkish and one (1) copy English languages each.

In relation to the ongoing stages of the Consultancy Services, the submission requirements given above should be followed by the Consultant as a guideline for the extent and type of documentation that will be required by the Client during the performance of the Services. However, the Consultant shall allow in its fee for the submission of all reports, drawings, documents, etc. either specifically requested in these Terms of Reference or those that may be implied there from and the Contractor/s' contract/s. The Client may however vary such requirements during the course of the Services to be performed.

Should additional copies be required extra over to those stated above or to be implied from these Terms of Reference, these shall be supplied by the Consultant(s) at the cost of reproduction of such documents, reports or drawing. Additionally, after finalizing the reports and “as built” drawings, which shall be prepared by the Contractor and approved by the Consultant, these documents shall be submitted to the Client in one (1) set of CD and in the software format acceptable by the Client. Each copy shall be durably bound in a volume or volumes depending on bulk, and the transparent copies shall have a suitable protective cover/box. All copies shall be labeled in accordance with the needs of the Client.

Upon the completion of Works, the Consultant shall submit all the original copies of correspondences, documents, test results, drawings etc., relating to the Services and Works, to the Client together with indices in acceptable files and forms by the Client.

## **10 Client’s Input and Counterpart Personnel:**

The Client will timely provide to the Consultant the inputs and facilities, assist the firm in obtaining licenses and permits needed to carry out the services, and make available relevant project data and reports.

The following items shall be provided free of charge by the Client to the Consultant: The existing designs, maps, topographic plans, analysis results, relevant documents and reports of the design drawings etc. The Consultant shall return all such drawings and documents received to the Client upon the completion of services.

In addition, the Client shall, where possible, assist the Consultant in obtaining approvals, permissions from the Municipalities and other State Authorities in respect of the Services to be performed.

The Civil Works Contractor/s’ bidding documents shall be arranged to incorporate clauses to provide temporary office area to the Consultant at the construction site depending on the size and location of the construction site, there will be (one room for Project manager), (one room for technical office engineer, OHS expert, electrical, mechanical engineer and survey engineer), (one room for site engineer and junior engineer and technicians) and (one room will be allocated as meeting room). . However, these will be constructed by the Contractor/s and will take some time. The Consultant will be fully responsible for providing their central office in Konya until the contractors are in place to make these site offices available. The central office shall be furnished and equipped by the Consultant, whereas the site offices shall be furnished by the Contractor/s with furniture through which the office is ready for the usage of Consultant (including Tables, Chairs, Document Cabinets, A/C Units, Electrical Sockets, Internet Connection etc.). All sort of running expenses except water and electricity (to be provided by the Contractor/s) shall be under the Consultant’s responsibility. The Consultant shall be required to deliver any equipment and materials provided by the reimbursable expenses and which have been used for the Services to the Client.

All local transport for the Consultant staff including the site supervisory staff shall be provided by the Consultant and shall be included in the proposal submitted.