

**ZAHTEV ZA IZRAŽAVANJE INTERESA
(SAVETODAVNE USLUGE – IZBOR KOMPANIJA)**

**PROJEKAT VODOSIGURNOSTI I ZAŠTITE KANALA
REPUBLIKA KOSOVO**

USLUGE NADZORA ZA IMPLEMENTACIJU PROJEKATA

<i>Br. Kredita</i>	<i>CR5902-XK</i>
<i>Br. Projekta</i>	<i>P133829</i>
<i>Naslov zadatka:</i>	<i>Konsultantske usluge za usluge nadzora izgradnje</i>
<i>Referentni br.</i>	<i>WSCP-CS-CQS-1 (XK-ILC-344317-CS-CQS_TA)</i>

Cilj Kosovskog **Projekta za bezbednost vode i zaštitu kanala** (WSCPP) je da doprinese vraćanju Ibarskog kanala u njegov prvobitni kapacitet za poboljšanje upravljanja vodnim resursima od strane različitih korisnika vode sa kanala u Centralnom Kosovu. To će osigurati pouzdanije snabdevanje vode kao i vodu boljeg kvaliteta od kojeg će imati koristi oko 500.000 ljudi i entiteta sa sedištem u slivu centralnog Kosovskog kanala, i postaje faktor podrške za ekonomski i društveni razvoj.

Ibarski kanal (ljudsko napravljeni veštački kanal) zajedno sa branom Ujmani/Gazivode, kompenzacionim rezervoarom Pridvorica i sistemom za navodnjavanje pod pritiskom koji opslužuje 20.000 ha izgrađen je u periodu 1970–1980. Projekat je napravljen kao višenamenski sistem koji obezbeđuje navodnjavanje, komunalnu i industrijsku vodu (Kil) i vodu za hlađenje za termoelektrane na ugalj u blizini Prištine. Nakon više od 40 godina rada, betonska obloga kanala je degradirala, što je rezultiralo značajnim gubicima od curenja (oko 50 posto) što je dovelo do značajno nižeg tranzitnog kapaciteta.

Agencija za implementaciju WSCPP-a je Kompanija Ibar-Lepenac (KIL) – akcionarska paradržavna organizacija u potpunom vlasništvu Vlade Kosova.

WSCPP uključuje sledeće komponente:

Komponenta 1: Rehabilitacija i modernizacija infrastrukture

Ova komponenta uključuje radove na ponovnom uspostavljanju tranzitnog kapaciteta Ibarskog kanala, omogućavanju zatvaranja kanala radi održavanja, jačanju strukturalne sigurnosti kanala od ekstremnih događaja i poboljšanju sigurnosti brane Ujmani/Gazivode. Ova komponenta će uglavnom sanirati otkrivene delove kanala (npr. sa oblaganjem kanala, tretman potpornog zida, deonica, useka, akvadukta, odvodnih kanala). Pored toga, izgradnjom nove akumulacije za balansiranje i hitne slučajeve u oblasti Mihalić, projekat će omogućiti kompaniji Ibar-Lepenac (KIL) da prekine protok kanala kad god je to potrebno za rehabilitaciju zatvorenih delova kanala ili usred ekstremnih događaja i balansiranje potražnje za vodom i snabdevanje u periodu do 2035. godine.

Komponenta 2: Zaštita i upravljanje vodnim resursima

Ova komponenta uključuje radove za zaštitu i upravljanje vodnim resursima, za povećanje operativne efikasnosti sistema Ujmani/Gazivode-Ibar i za zaštitu kvaliteta vode u kanalu (od ponovnog ili

slučajnog zagađenja i drugih poremećaja koje je stvara čovek). Radovi obuhvataju selektivno ograđivanje i pokrivanje pojedinih deonica kanala. S obzirom na važnost kanala, biće instalirana relativno napredna SCADA, uključujući instrumente za optimiziran radni raspored rezervoara Ujmani/Gazivode i njegovog nizvodnog balansnog rezervoara u Pridvorici, integrisan sa SCADA kanalom.

Komponenta 3: Upravljanje projektom, koordinacija, monitorisanje i evaluacija

Ova komponenta će pokrivati celokupno upravljanje projektima kao i koordinaciju između različitih ministarstava/agencija uključenih u upravljanje vodama u vezi sa kanalom IL. Aktivnosti koje se finansiraju iz ove komponente uključuju izgradnju kapaciteta KIL-a, uključujući konkurentno odabrane konsultante za detaljno projektovanje i nadzor, MiE, veće stručnjaka za brane (VS) i prilagođene kurseve obuke o tehnologiji kanala i upravljanju vodama.

U okviru komponente 3 WSCPP-a, **KIL namerava naručiti usluge kvalifikovane firme za pružanje potrebnih Usluga nadzora nad izgradnjom za sprovođenje ključnih infrastrukturnih elemenata projekta koji su posebno navedeni u predloženom tenderu za radove na Bilansnoj rehabilitaciji kanala Ibar Lepenac**

Napomena 1: Konsultanti trebaju uzeti u obzir da je ranije dodeljen Ugovor o izvođenju radova za puni obim radova 2020. godine, ali zbog neizvršavanja izvođača (kome je dodeljen ugovor o radovima), samo su određeni delovi obima radova završeni dok je znatna većina radova ostala nedovršena. Raniji ugovor je raskinut i planira se raspisivanje novog tendera za preostali nedovršeni posao. Usluge nadzora izgradnje u okviru ovog zadatka (kao što je navedeno u ovom Projektnom zadatku) odnose se na prioritete nedovršene radove za koje će biti dodeljen novi ugovor o radovima.

Napomena 2: Konsultantska firma je već pripremila projekat i nacрте za radove na sanaciji bilansa za kanal Ibar Lepenac (JV GAUFF GmbH & Co. Engineering KG + Sweco GmbH + Sweco Hydroproject + IncoWest Ingenieure) koga je KIL angažovao za pružanje tehničke pomoći prema posebnom ranijem ugovoru koji je sada završen.

Više detalja o obimu potrebnih usluga nadzora izgradnje dostupno je u Projektnom zadatku (ToR) za ugovor koji je dostupan KIL-u.

Predviđeno je da će ugovor za potrebne usluge uključivati oko **77,5 osoba meseci rada osoblja (sa 58 osoba meseci unosa Ključnog osoblja i 19,5 osoba meseci Neključnog osoblja)** u kalendarskom periodu od **18** meseci.

KIL sada poziva Konsultantske firme ("Konsultante") koje ispunjavaju uslove da iskažu svoj interes za pružanje usluga. Zainteresovani konsultanti trebaju pružiti informacije koje pokazuju da imaju potrebne kvalifikacije i relevantno iskustvo za obavljanje Usluga (brošure, iskustva u regionu, iskustva na sličnim poslovima, iskustva sa projektima finansiranim od strane multilateralnih razvojnih institucija, organizaciona i upravljačka struktura, ključno osoblje na raspolaganju u firmi, itd.)

Minimalni željeni kvalifikacijski zahtevi su, između ostalog, sledeći:

- (a) Legalno registrovana i dobro funkcionalna tehnička konsultantska firma sa najmanje 10 godina radnog iskustva u oblasti inženjerskog konsaltinga uključujući nadzor izgradnje za infrastrukturne projekte (najmanje 2 projekta u poslednjih 5 godina)
- (b) Iskustvo sa projektima u sektoru vode/hidraulike koje uključuje iskustvo u nadzoru izgradnje građevinskih radova u vrednosti od 5 miliona eura ili više (tj. vrednost civilnih radova/građevinskih radova)
- (c) Iskustvo sa FIDIC ugovorima o upravljanju projektima
- (d) Dostupnost dobro kvalifikovanog i odgovarajućeg tehničkog osoblja koje je, ili stalno zaposleno u firmi ili ima dugogodišnju povezanost sa firmom

Kriterijumi za evaluaciju, između ostalog, uključuju: (i) Opšta ovlašćenja firme vis à vis sektorski fokus zadatka, tj. vodni/hidraulični sektor (ii) Uspešno izvršenje sličnih zadataka preduzetih u poslednjih 5 godina, uključujući zadatke u regiji/državi (iii) Dostupnost odgovarajuće radne snage i veština potrebnih za izvođenje zadatka (iv) Kratki dokument firme (maksimalno 3 do 4 stranice) o predloženoj metodologiji i planu za izvršenje ovog zadatka sa posebnim osvrtom na PZ za ovaj zadatak.

Konsultanti se mogu udružiti sa drugim firmama u obliku zajedničkog ulaganja ili pod-konsultanta kako bi poboljšali svoje kvalifikacije. U slučaju zajedničkog ulaganja, svi partneri ZU biće pojedinačno i zajednički odgovorni za izvršenje zadatka i evaluacija kvalifikacija će to uzeti u obzir. U slučaju pod-konsultanta, samo akreditivi glavne konsultantske firme će se uzeti u obzir za ocenu kvalifikacija.

Pažnju zainteresovanih konsultanata skreće se na paragraf 1.9 *Smernica Svetske Banke: Odabir i zapošljavanje konsultanata IDA krediti od strane Zajmoprimaca Svetske banke, odabir i zapošljavanje konsultanata (u okviru IBRD zajmova i IDA kredita i Granda) od strane zajmoprimaca Svetske banke*, januar 2011., revidirana jula 2014. (“Smernice za konsultante”), u kojima se utvrđuje politika Svetske banke o **sukobu interesa**.

Konsultant će biti izabran u skladu sa **Odabirom na osnovu metode kvalifikacije konsultanta (OKK)** navedenom u “Smernicama za konsultante” Svetske banke.

Dodatne informacije možete dobiti na dole navedenoj adresi u vremenu od 09.00 do 15.00 sati od ponedeljka do petka isključujući vreme ručka (12.00 do 13.00) i državne praznike.

Izrazi interesovanja (uključujući sve potrebne informacije kao što su gore tražene) moraju biti dostavljeni u pisanoj formi na adresu u nizu (lično ili putem imejla) do **16. marta 2023.** godine do ili pre 12:00 sati

Faruk Mujka (CEO) / Vigan Syla (koordinator Jedinice za implementaciju projekta)
Projekat vodo-sigurnosti i zaštite kanala
Kompanija Ibar Lepenc
Ul. “Bill Clinton” br. 13,
10000 Priština, Republika Kosovo
Telefon: +383 38 525 006, 526 159
E-mail: info@iber-lepenc.org

KOSOVO

CONSTRUCTION SUPERVISION SERVICES FOR IBER LEPENC CANAL REHABILITATION UNDER THE WATER SECURITY AND CANAL PROTECTION PROJECT

Contract Reference: WSCP-CS-CQS-1 (XK-ILC-344317-CS-CQS_TA)

1. CONTEXT

Kosovo is a landlocked country, located in the southern region of the Balkans. The country has limited water resources, and water distribution remains largely unequal throughout the country. While the mountainous western and southern fringes are plentiful in water, the central/northern high-lying plateau that covers about half of the country's territory has limited water resources. Yet, it is precisely this area that holds the country's largest development potential because most of the mining, agricultural, and industrial activities are located here, including the Durres–Pristina–Belgrade industrial belt. This region has the highest population of the country and is regarded as the commercial and administrative center of Kosovo. The country's two thermal power plants, Kosovo A and Kosovo B, the main energy production centers for all of Kosovo, are also located in this area (also an additional coal-fired generation plant is planned to be established in this region, possibly to replace Kosovo A).

The Ibër-Lepenc (IL) Canal. This region of Central Kosovo, including the capital Pristina, depends almost entirely on the IL Canal to meet its water needs. The IL Canal conveys water from the Ibër River, a transboundary river that originates in Montenegro and flows through Serbia before entering Kosovo in the northern municipality of Mitrovica. Flowing east through Mitrovica, it eventually makes a sharp turn to the north and flows back into Serbia. The river is dammed in Kosovo by the Ujmani storage dam, and the canal receives most of its water from the Ujmani reservoir. The Ujmani hydropower plant (35 MW capacity) discharges water into the Pridvorica compensation reservoir, from where (a) water is diverted into the Ibër Canal; (b) an environmental flow of around 1.8 m³/s is released to the Ibër River; and (c) water is released directly to the Ibër River through a sector gate when the Pridvorica reservoir is full. The Ibër Canal runs south for about 49 km. The canal was designed with a telescopic capacity decreasing from 22 m³/s at Pridvorica to 6.45 m³/s at the tail. It conveys bulk water by gravity through a succession of trapezoidal and closed canals, tunnels, aqueducts, and siphons. Only about half of the length of the canal is open air.¹

The Ujmani Dam, is a rock-filled embankment dam on the Ibër River in the District of Mitrovica, Kosovo. It was completed in 1979 and forms Ujmani Lake, the largest reservoir in Kosovo. Ujmani Lake covers 11.9 km² (4.6 sq mi) of which 2.7 km² (1.0 sq mi) are in Serbia. At 101 m (331 ft) in height, it is also the tallest dam in Kosovo. Discharge water from the turbines (hydropower plant) and biological minimum from river Ibër

¹ The Ibër Canal together with the Ujmani dam, the Pridvorica compensation reservoir, and a pressurized irrigation system serving 20,000 ha was built in 1970–1980 under a World Bank loan (YU-777). The project was designed as a multipurpose system providing irrigation, municipal and industrial (M&I) water, and cooling water for coal power plants near Pristina.

is collected by the smaller Pridvorica reservoir and dam, height 10 m located below Ujmani. Dam with four controlled gates.

Mihaliq dike – reservoir, the construction of a 600 m long and 25 m high earth dike across a wide creek above the Ibër Canal creating a compensation reservoir of about 3.7 million m³, a pumping station to lift water from the Ibër Canal to the reservoir, and a pipeline of 2 km to supply the Pristina municipal regional water company presently under construction during periods of high turbidity of the canal water.

Uses of the canal. The canal is a multipurpose water conveyance system, supplying water for energy production, mining, industrial, agricultural, and household uses. There are limited (in some cases none) secondary sources of water for the canal users so that an interruption of service would have a significant impact on the overall economy of Kosovo. It is the single source of drinking water supply to the populations of central Kosovo. The cooling water for the thermal power plants, Kosovo A and Kosovo B, is drawn from the canal (Kosovo A is only partially dependent on the canal, mostly during summer months). Irrigation in central Kosovo is also dependent upon the water supplied by the canal, although currently only about 2,000 ha out of the originally planned (equipped) 20,000 ha (15,000 ha) are being irrigated primarily due to low demand by farmers for the following reasons: (a) The excessive fragmentation of small farms in five to seven plots; (b) crop structure—mainly cereals that can be cultivated without irrigation; (c) labor shortage due to out-migration; (d) design of the pressurized distribution system imposing a rotational use of water and a coordinated organization of irrigation to avoid loss of pressure; (e) the inappropriateness of the portable sprinkler equipment for small farms divided in several plots; and (f) limited markets primarily due to competition from imported agricultural products.

Current status of the canal. Built in the 1970s, the canal infrastructure has been deteriorating over the years. After 40 years of service, the concrete lining has been degrading, resulting in significant seepage losses (around 50 percent). During the last five years, the Ibër-Lepenc Canal Corporation (ILC), in charge of operating and maintaining the canal, has carried out repair works on the most seriously damaged sections by replacing the existing concrete and later by placing 12 cm reinforced concrete over the existing one. The works were executed at a slow pace by local contractors because it is not possible to close the canal for even one day. To be able to repair the lining, the canal cross-section is divided into two sections by installing a stop-log wall in the middle of the canal. Physical damage and pollution, as a result of landslides/mudslides, unstable soils, runoff from the surrounding farms and streets, garbage, and other debris, have affected the transit capacity of the canal now estimated at about 12 m³/s as well as the quality of water. During rainy periods, sediment-loaded water discharges into the canal because of the absence of a collector ditch on the right bank of the canal and the deterioration of the drainage structures to cross the canal. The inefficiency of the water delivery has been compounded by the limited optimization of water resource management (balance between hydropower and water release). There are also some operational losses (demand-supply mismatch) primarily due to limited regulation and automation along the canal.

2. OVERALL PROJECT DESCRIPTION

2.1 Project Components

The project consists of two main areas of intervention: (a) canal infrastructure rehabilitation and modernization (by re-establishing the canal transit capacity, enabling closure of the canal for maintenance, strengthening the canal structural safety against extreme events, and enhancing dam safety) and (b) water resources protection and management (by increasing the Ujmani-Ibër system operational efficiency and protecting the canal ambient water quality). The project will rehabilitate the open-air sections of the Ibër Canal. However, rehabilitation works on the closed sections will not be possible without constructing the new Emergency Reservoir of Mihaliq (ERM).

Component 1: Infrastructure Rehabilitation and Modernization

This component will focus on physical improvements to the deteriorated sections of the canal and its structures as well as improved hydraulic operations. Works under this component include the following:

- *Subcomponent 1(a)*. Iber canal repair, and increased stability for protection against renewed physical damage from landslides and unstable soils (through lining, treatment of joints between concrete panels, abutments, foundations, cuttings, aqueducts, culverts, and tile drains to control uplift pressure). Application of bituminous geo-membrane is another technical option. Small works for the Ujmani dam safety
- *Subcomponent 1(b)*. Developing an emergency and balancing reservoir along the canal (for short-term storage along the canal to bridge peak water demand and to enable temporary outages for repair purposes).

Component 2: Water Resources Protection and Management

The project will cover related water resources management options in the Ibër River basin (as related to the water balance of the Ibër basin), including the following:

- *Subcomponent 2(a)*. Protection of the canal against renewed pollution, accidental pollution and other threats and man-made disruptions (through fencing, selective covers, or parallel interceptor drains with vegetative beds). This will help address the ambient water quality in the canal, particularly to meet the inflow quality requirements for the power plants and for the new Pristina and Vushtrri WTP.
- *Subcomponent 2(b)*. Equipment for better management of gates and regulation of water flows, water monitoring (for the main Ibër Canal and for its secondary delivery system), including provisions for remote monitoring and controlling of related structures. A relatively advanced SCADA will be installed given the importance of the canal. The equipment will also include instrumentation for optimized operational schedule of the Ujmani reservoir and its downstream balancing reservoir in Pridvorica, integrated with the proposed canal SCADA (to balance the releases for hydropower with the releases for the Ibër Canal).

3. DETAILED PROJECT DESCRIPTION

Note: All required quantities of work are defined in the design drawings and BoQ for the Works as in the Bidding Document for these Works and as would be in the contract awarded for these Works.

3.1 Canal

Canal Section Rehabilitation

- New concrete lining:
- Rehabilitation of joints through the total length of the canal
- Rehabilitation of aqueducts (through application of plastic waterproofing materials or other equivalent waterproofing materials)

3.2 Structures

Service Roads

- Access road along the canal, including rehabilitation and construction of new sections
- Construction of slabs to cover sections of the canal across Zubin Potok Village

Works to Protect the Canal from Turbidity and Pollution

- Construction of Crossing channels above the canal and under the canal
- Construction of Storm water culvert on section of canal length

Other Minor Works

- Water distribution boxes
- Tunnel metal grids
- Clearing of vegetation
- Fence
- Septic Tanks

Note 1: *The Works contract for which construction supervision is required does not include all the components listed above and only priority components are included in this initial phase.*

Note 2: *Consultants should note that a Works Contract was earlier awarded for the full scope of works in 2020 but due to non-performance of the contractor (who was awarded the works contract), only certain portions of the scope of work was completed while the substantial majority of the works remained unfinished. The earlier contract was terminated and a new tender for the balance unfinished work is planned to be awarded. The Construction Supervision services under this assignment (as outlined in this ToR) is for the priority balance unfinished work for which a new works contract will be awarded.*

4. OBJECTIVES OF THE ASSIGNMENT

The overall objective of this consultancy is: to supervise the implementation of works described above through provision of Engineering Supervision and Quality Assurance Services of internationally recognized standards for all construction (civil and mechanical) works as described above, and supervise compliance with ESMF and RPF, in support of the ILC.

The Works contract will be implemented under FIDIC (Red Book) Guidelines.

Construction Supervision and Quality Assurance

The consultant shall act as the Employer's technical and managerial consultant in relation to the above referred contracts.

The consultant shall carry out verification and approval of the construction contract and the contractor's health and safety provisions; general supervision of construction; review and monitoring of the contractor's programme (construction, equipment supply, installation and commissioning and related activities), conduct quality control of civil works, conduct independent measurement and estimation and thereby review the Contractor's claims (payments and variations); environmental monitoring activities; review of contractor's submission for completion and handover of the works; and related actions as appropriate.

The consultant will be responsible for the supervision of all construction work. As the 'Engineer', the consultant will administer the Construction Contract and ensure that the contractual clauses, with respect to both quality, quantity and timeliness of work, are respected and the works are constructed in accordance with the provisions of the Construction Contract. The Consultant shall designate a qualified full time Employee to act as "Engineer's Representative" for the civil works contracts.

The Consultant will make all necessary measurements and control the quality of works and will make all engineering decisions required for the successful and timely implementation of the Construction Contract. He will have all the powers that are defined as those of 'Engineer' with the exception of the following, for which he will seek prior approval of the "Employer":

- 1) Issuing the order to commence the works;
- 2) Issuing/approving Variation Orders; except in extremely rare cases such as an emergency situation as reasonably determined by the Consultant;
- 3) Issuing/approving/sanctioning of additional items, sums or costs;
- 4) Variation of rates and prices;
- 5) Approving subletting of any part of the works;
- 6) Approving any extension of contractual time limits, and
- 7) Stopping and/or termination of Contractor's contracts.

The Consultant, in addition to or as an expansion of the activities and responsibilities required of the Engineer as detailed in Construction Contracts, will, inter alia, undertake, but not limit to the following activities:

General

The Consultant, as “Engineer” to the contract (as defined under FIDIC) will, inter alia, undertake, but not limit to the following activities:

- i. Upon approval by the client, give the order to the contractor to commence the works;
- ii. Administer the Construction Contracts, approve materials, issue variation orders to the Contractors and ensure that the quality of the works is in accordance with the contractual specifications;
- iii. approve/suggest modifications in the Contractor's work program, method statements, material sources, etc.;
- iv. monitor progress of the Works, identify causes, or potential causes, of any delay and advise the Employer of suitable corrective actions in a timely manner;
- v. Review and approve Contractor's proposed personnel for positions nominated in the Contract or any replacement upon approval client;
- vi. Provide assistance to the Employer in respect of contract implementation, by evaluating and making recommendations on claims and other matters;
- vii. Provide other specialist services relevant to the Project as may be agreed to, during negotiations or ordered by the Employer, on the basis of personnel rates in line with similar qualifications and experience as included in the Consultants Contract,
- viii. Provide other specialist services relevant to the Project as may be agreed to, during negotiations or ordered by the Employer, on the basis of personnel rates in line with similar qualifications and experience as included in the Consultants Contract,
- ix. Will design an adequate project contract performance management system and undertake project performance monitoring and evaluation of the Project. Baseline data will be collected by the Consultants throughout implementation and at Project completion,
 - x. Prepare monthly and quarterly reports fully describing the progress of work and the services rendered by the consultant during the month under review, indicating also the problem areas and actions required to overcome them,
 - xi. Maintain a day-to-day diary (Measurement Book) recording of all events relevant to the works,
 - xii. Maintain a permanent record of all measurements for the work quantities to be paid for and the results of all tests carried out for monitoring the quality of works.
- xiii. Certify “As constructed” drawings for each component of the works prepared by the Contractor,
- xiv. Confirm validity of insurances obtained by the Contractor,
- xv. Monitor closely and regularly the mobilization and progress of work and advise the Contractor about corrective measures,

Review of Design/Working Drawings

- i. Review and approve the Design for Construction Drawings developed by the contractors or prepare and issue a new one as necessary. The Consultant's work will include, if required, amending the levels, alignment plans, canals and drains profile drawings, hydraulic structures, roads, bridges and other elements of the Works, based on updated topographic survey of the project site, including data gathered by the Contractor as work proceeds.
- ii. Prepare updated and additional drawings as required during the contract period and supply to the contractor in time;
- iii. Approve Contractor proposed designs/drawings for temporary works;

- iv. Make necessary modifications to the designs and drawings wherever required due to levels or conditions that are found on site at the time of execution; and
- v. Ensure that Designs for Construction Drawings as issued to the Contractor are complete, consistent and coherent across the entire project.

Mechanical, Electrical and Instrumentation Works

In addition to the items mentioned above, the responsibilities include:

- i. Review and approve electro-mechanical contractors' design, technical calculations and working drawings ("shop" drawings), program of control and quality assurance, manufacturing progress and delivery schedule
- ii. Evaluate materials and documentation of materials, and supervise any required tests on submitted samples
- iii. Supervise the installation and erection of the equipment at site. Check and monitor the quality and quantities of works in progress, and the completed works done by the contractor. Certify and issue certificates for progress payments.
- iv. Supervise the testing and commissioning program for the equipment ensuring they are carried out in accordance with the technical specifications and evaluation of the testing results to ensure that all systems are functioning according to the contracts.
- v. Take over installed and commissioned equipment after commissioning and issue acceptance certificates for the equipment.

Quality Control

- i. Submit for approval by the Client, the Quality Assurance System to be implemented by the Consultant for their own operations;
- ii. Obtain, review and make recommendations on the Quality Assurance system of the Contractor and forward to the Client for approval;
- iii. Review of all mix designs proposed by the contractors and approve/suggest modifications in the mix design, laying methods, sampling and testing procedure, and quality control measures, to ensure required standard and consistency in quality at the commencement of items.
- iv. Prepare a system of Quality Assurance of works, including, but not limited to, establishing testing frequencies and acceptance criteria for all construction activities based on best international practices;
- v. Inspect the performance of the work with regard to workmanship, compliance with the specifications and all necessary testing required for acceptance of any item of work;
- vi. Inspect and approve all material sources nominated by the Contractor;
- vii. Assess and check the laboratory and field tests carried out by the Contractors, and carry out full independent and comprehensive tests in the Consultant's own materials testing laboratory;
- viii. Ensure that requisite samples are taken during execution and promptly advise the contractor about the results;
- ix. Issue orders to the Contractor to remove or make good any work which is found to be:
 - a. not in accordance with the drawings;
 - b. not in accordance with the specifications in terms of either work method or materials specification; and

- c. covering work which has not been inspected for acceptance or rejected as unacceptable;
- x. Maintain independent records of all testing work, including cross referencing to items of work to which each test refers and location from which any samples were obtained for testing;
- xi. Review the Contractors supply of equipment and supervise installation; ensure Quality Assurance; and manage the commissioning and performance testing of plant; and
- xii. Review the test results/certificates of all construction materials and/ or sources of materials and undertake additional tests as necessary to assess the quality of works.

Field Construction Supervision

- i. Advise "Employer" for advance actions required to be taken for handing over of site and in achieving different milestones for completion of projects as per schedule;
- ii. Assist Employer in proper monitoring progress of works and implementation of the project;
- iii. Carry out detailed checking and verification of the setting-out data for the work including lines, levels and layout to ensure conformity with the working drawings;
- iv. Maintain records such as design for construction/working drawings, as-built drawings, test data, details of variations, correspondence and diaries in the formats approved/specified by the Employer;
- v. Ensure execution of work as per implementation schedule;
- vi. Inspect the sub components of the Works (that are completed) at appropriate intervals during the Defect Liability period and issue the Defect Liability certificate;
- vii. At the completion of the contract verify the "as-built drawings" as true record of the works as constructed;
- viii. Assist Employer in coordination work with different agencies and hold meetings for proper and timely implementation of the Project, including site meetings;
- ix. Liaise and coordinate with relevant authorities to remove all obstacles and encumbrances from the project site, including utility relocation and tree cutting, as required;
- x. Carry out regular inspection of the contractor's equipment, plant, machinery, installations, housing and medical facilities etc. and ensure they are adequate and are in accordance with the terms and conditions of the Contract. The inspection is to be performed before any part of the works is accepted as substantially complete; and
- xi. Direct the Contractor to carry out all such works or to do all such things as may be necessary to avoid or to reduce the risk in case of any emergency affecting the safety of life or of the works or of the adjoining property and advise the Employer thereof as soon thereafter as is reasonably practicable.

Measurement, Recording and Payment

- i. Undertake fully independent topographic/profile survey of all canal, road, structures, and other measured elements of the Works, to allow independent calculation of quantities for the evaluation of interim certificates and the final payments.
- ii. The Consultant will process interim and final payments to the Contractor in accordance with contract agreement. Interim monthly payments shall be based on interim payment certificates processed by the Consultant, following claims filed by the contractor;
- iii. Certify completion of part or all of the works;
- iv. Review and ensure continuity of Contractors' sureties in approved formats;
- v. Update cost estimates each year or at quarterly completion (25 percent, 50 percent, 75 percent, and 100 percent) of the Project, whichever takes place first;

- vi. Maintain records of all plant, labor and materials used in the construction of the Works;
- vii. Check Contractor materials ordering schedule;
- viii. Analyze any contractual claim submitted by the Contractor and prepare a report for the Employer addressing the actual basis, in terms of both technical and financial issues, for the claim and recommendations for a response to the Contractor;
- ix. Assist the Employer in providing clarifications/explanations to the observations made from time to time, by Auditors; and
- x. Prepare records of certified claims and payments by the clients.

Environmental and Social Safeguards Monitoring

- Provide oversight on environmental and social management aspects of activities and ensure ESMPs are implemented.
- Monitor the effectiveness with which the ESMP and other management plans are implemented and recommend necessary corrective actions to be taken to the Client/ PIU
- Ensure timely disclosure of final ESF instruments as required before work implementation,
- Establish a system to monitor environmental and social impacts from the project activities regularly via site visits etc.,
- Ensure that consultations are being undertaken in line with management plans including meaningful consultation with women throughout the project lifecycle
- Ensure that the grievance mechanism is functioning effectively and is receiving grievances, including channels for SEA/SH-related grievances;
- Make recommendations to address any grievances brought about through the Grievance Redress Mechanism in a timely manner as per the ESMF/ESIAs, ESMPs, RAP, SEA/SH.

5. Consultant's Key Personnel

The Consultant's team for the assignment (construction supervision phase) is to be composed of well qualified and experienced Kosovo national professionals as below:

- a) The Team Leader/Engineers Resident Representative (Resident Engineer). Civil/ Hydraulic/Water Resources Engineer with at least 15 years' experience in design of irrigation projects. He/She will, preferably, have a Master's degree in irrigation, water resources or civil engineering or equivalent. He will be responsible for the overall supervision of all components of the Works The expert should have prior experience in FIDIC managed contracts. He/she should also have prior experience as a Team Leader.
- b) Construction Supervision Engineer (Water and Hydrological Structures) with a master's degree in Civil/Hydraulics/Water Resources Engineering or related field and with a minimum 10 years' experience in supervision of construction issues related to water/hydraulic engineering related structures/systems, preferably in water resources/canal infrastructure works. He/She will be responsible for supervision of water/hydraulic related elements of the site supervision of works;
- c) Construction Supervision Engineer (General Civil Structures) with a master's degree in Civil Engineering or related field and with a minimum 10 years' experience in supervision of construction issues related to general civil engineering related structures/systems, preferably in water resources/canal

infrastructure works/projects. He/She will be responsible for supervision of general structural and other elements of the site supervision of works;

d) Electro-Mechanical Engineer with a Master's degree in Mechanical/Electrical Engineering and with a minimum 10 years' experience in supervision of electro-mechanical works, preferable in water resources/canal infrastructure works. He/She will be responsible for the electro-mechanical elements of the site supervision of works;

e) Quantity Surveying/Geodesy and Measurement Engineer with at least a Bachelor's degree in Geodesy/Quantity Surveying (or a related discipline) and with at least 5 years of fields experience in similar works preferable in water resources/canal infrastructure works. He/She will be responsible for quantity measurements and surveys that are part of the site supervision of works;

Consultant's Non-Key Personnel

f) Administrative Office with appropriate educational qualifications and with at least 5 years' experience in project office administration with special reference to administration activities related to technical consultancy contracts.

g) Construction Legal Expert with FIDIC Knowledge with an accredited degree in law and extensive experience in legal issues related to civil construction matters supplemented with exposure/knowledge to FIDIC based rules of contract management.

Key staff person-months for Construction Supervision phase is estimated and presented in table below. The estimated total requirement for key staff (construction supervision phase including both Key and Non Key Staff) is 77.5 person months as per the table below.

Staff Input

S. No	Key Staff	Total Input in Months
K1	Team Leader / Resident Engineer	18 Months
K2	Construction Supervision Engineer (Water and Hydrological Structures)	12 Months
K3	Construction Supervision Engineer (General Civil Works)	9 Months
K4	Electro-Mechanical Engineer	4 Months
K5	Quantity Surveying/Geodesy and Measurement Engineer	12 Months
K6	Health & Safety Environment Officer	3 Months
	Total Key Staff Input	58 Person Months
	Non Key Staff	
1	Administrative Officer	18 Months
2	Construction Legal Expert with FIDIC Knowledge*	1.5 Months*
	Total Non-Key Staff Input	19.5 Person Months

* Staff Deployment will only be need based and with Client's prior written approval

** The staff inputs indicated in months is the total projected input and will be spread out across the 18 months consultancy contract period and will be mobilized for construction supervision and related duties as and when needed during the implementation.

It is expected that the consultant will deploy a team of experts who are fluent in both Albanian and Serbo-Croatian keeping in view the spread of the works sites which cover both Albanian and Serbo-Croatian speaking areas.

6. Reports/Deliverables

Reporting on Canal Rehabilitation Works Implementation:

- a) Monthly, Quarterly and Annual Progress reports
- b) Report comprising a narrative and bar charts or other graphic presentation, showing details of the construction progress, changes in the assignment schedule, impediments and proposed remedies. It will be submitted on a monthly, quarterly and annual basis.

The Engineer / Project Manager shall within 7 - 10 days from the end of the month submit monthly and quarterly Progress Reports to the Employer based on:

- i. Weekly reports collected from the works contractor

The monthly progress reports can be kept short and focused, with more comprehensive quarterly progress reports.

- c) Maps and Drawings

Maps and drawings to be submitted shall include, but not be limited to the following:

- i. Updated project maps showing the general project layout and locations of major infrastructure,
- ii. Working drawings prepared by contractors but approved/certified by the consultant,
- iii. "As Built Drawings" prepared for all works after the completion of construction.

- d) As and when appropriate submit design modification reports

e) Reporting on Environmental and Social Safeguards:

- Prepare short monthly progress reports on ESMF/ESMP implementation (in relation to the Works Contract being supervised) as part of the progress report and submit them to Client/PIU for approval.
- In all working sites disclose a contact information to receive potential complaints by the neighboring communities and follow up (inform the employer, or contractor and document the actions) upon receiving potential complaints

f) Upon completion of the works contract, prepare and submit to the Employer a Final Report indicating remarkable features, problems encountered etc. during the course of execution of the contract. The report shall include all documents related to testing of works at site and in the Contractors workshops. The report shall be submitted in 5 hard copies and digital copy. The report shall include all relevant maps, photographs, assessments, records of critical design decisions and meetings in useful digital format.

7. DURATION OF THE ASSIGNMENT AND TYPE OF CONTRACT

The consultant will be required to undertake the consultancy within **18 months** and produce the required outputs outlined above.

Extension, if considered necessary, will be provided subject to availability of funds and necessary approvals from the Government of Kosovo and the World Bank on extension requirements.

Type of Contract – **Time Based** with periodic payments against time actually spent on the services

8. REPORTING ARRANGEMENTS

The Consultant will report to the CEO of Iber Lepenc Company through the WSCP Project Coordinator, but has wide functional responsibilities to technical staff in ILC. He will liaise with local governments and stakeholders as may be required.