**REQUEST FOR EXPRESSIONS OF INTEREST**

Ministry of Agriculture, Forestry and Rural Development in Kosovo

Project Title: **Agriculture and Rural Development PROJECT (**KARDP)

IDA, Credit No 60170 XK

**Consultancy Services for the Review of the Design and Bidding document for the rehabilitation & modernization of the Radoniqi - Dukagjini irrigation system**

**KARP-CS-60**

1. **Project Background**

The Agriculture and Rural Development Project (ARDP) is implemented by the Additional Financing Agreement between the Republic of Kosovo and the International Development Association (Credit number 6017-XK). The development objective of the project is to improve productivity of and access to markets by project beneficiaries in the horticulture and livestock subsectors of Kosovo and strengthen the institutional capacity of the Ministry of Agriculture, Forestry and Rural Development. The ARDP provided support to the irrigation sector with an aim to improve the future planning for investments in the sector and rehabilitate the infrastructure for better service provision to the farmers and sustainable management of natural resources and human capital.

In 2018, the ARDP has conducted a Feasibility Study for the rehabilitation of the Radoniqi-Dukagjini Irrigation Scheme (RDIS) including *i) Preparation of the conceptual design, preparation of a Preliminary Design and of a Preliminary Engineering Study for selective improvements in the scheme, ii) Cost/Benefit analysis of proposed larger investments within the scheme only, iii) Preparation of technical documents and of bidding documents and iv) Preparation of Confidential Engineering Estimates*. The RDIS is managed by the Radoniqi-Dukagjini Irrigation Company and despite the challenges the sector is facing this is the best performing scheme in the country. and it provides for the largest share of actually irrigated area and most of the increase in high value crop production. The scheme’s main features are a very dense pressurized irrigation system currently serving about 8,500 hectares through sprinkler irrigation from a multipurpose storage dam. The scheme is unique because of its sled-mounted sprinklers supplied through flexible hoses. This equipment has proven to be well suited and adapted to the small and fragmented farms (farms of 1-1.5 ha divided over 4-5 plots). Such a system helps to fully provide and meet on-demand water supply at the farm level, thus 41 comprising a very high level of irrigation service delivery (which is very rare), and allows easy farmer management.

The ARDP supported rehabilitation of the RDIS from August 2020 to July 2022 with investments focusing on improvement and modernization of irrigation services, reduce water losses and production costs and increase irrigated area. Further support is expected to be provided under EU IPA grant to improve the irrigation infrastructure by investing in other two existing sub-systems, modernize the system and implement technical assistance measures aiming at institutional capacity building to improve governance of the system as well as knowledge share for irrigation typologies for the farmers.

In order to continue with the selected rehabilitation works at the RDIS to make the technical improvements and modernize the system to improve the performance and the efficiency of the services, the MAFRD is seeking a service provider (the Consultant) to review the Technical Bidding Documents which consist of the following:

− Detailed Design and Drawings,

− Table of Quantities, Bill of Quantities and Cost Estimate

− Technical Specifications including Construction Standards and Norms under which construction works will be implemented

− Bidder's Qualification Criteria.

**2. Project Objectives**

The overall objective of the assignment is to review the existing engineering design and cost estimates for the rehabilitation and modernization of the Radoniqi - Dukagjini Irrigation System (RDIS) which should allow the contractors to prepare a realistic bid, to achieve good quality of the works and provide the MAFRD and Radoniqi-Dukagjini Regional Irrigation Company (RDIC) (hereinafter called the “Client”) with a tool for quality assurance and contract management. The services under this assignment include review of the feasibility study report, detailed engineering designs, drawings and BoQs for entire irrigation scheme. The review shall confirm that the detail design satisfies the objectives previously set by the Client, therefore, a careful review of the existing technical documents and recalculation/redesigning is necessary. The Consultant is also expected to draft the ToRs for the supervision of works that are expected to be executed to upgrade the existing Radoniqi-Dukagjini system.

The consultant will conduct the review process in collaboration with the Client by carrying out discussions with the RDIC team and conducting site visits.

**3. Actual situation**

The Radoniqi–Dukagjini Regional Irrigation Company manages two separate schemes: Radoniqi and Dukagjini. Although the company has a unified board and technical sector, the transition towards a unified structure has not been completed, and the two schemes are managed on working units. The company has its own infrastructures and its maintenance departments. The Radoniqi scheme itself has an area of 8,600 hectares, of which 4,579 hectares are irrigated every year. Water is derived from the Radoniqi lake and transferred through channels and regulation basins to the secondary and tertiary network (extending over 1,200 km), which is piped with gravity pressure (except some areas that require pumping). The total capacity of the Radoniqi reservoir is about 120 M m3. Dukagjini scheme is composed of two subsystems, system “R” (partially modern irrigation system) with area of 3500 hectares and “D” (traditional irrigation system) with an area of 1,500 hectares. The unregulated urbanization tends to be a challenge in this irrigation area. Both subsystems derive water from Prizren River with intake structures.

Through the Agriculture and Rural Development Project (ARDP), rehabilitation investments have been undertaken in the RDIS improving the infrastructure of the irrigation scheme for efficient water management and supporting the management decision system. According to the Feasibility Study and design for the rehabilitation and modernization of the Radoniqi - Dukagjini irrigation system, there is still demand to continue and complete the rehabilitation works in order to make the system economically, financially and environmentally sustainable. While rehabilitation works undertaken until July 2022 have improved physical infrastructure in six irrigation sub-systems of the system by ensuring water flow management and preventing the leakages, the future investments will focus on modernization of the scheme by facilitating efficient water measurement used for irrigation and rehabilitate the other three irrigation sub-systems which are damaged and did not function for three decades.

**4. Objective and scope of the work**

The specific objective of the assignment is to review the existing engineering design and cost estimates to confirm that the detail design satisfies the objectives previously set by the Client with purpose of ensuring the estimates are realistic and accurate the assignment. Feasibility study for the RDIS has been conducted in 2018 and detail engineering designs and BoQs have been prepared for 9 irrigation sub-systems whereas, rehabilitation works were carried out in 6 sub-systems, main canal and its structures until July 2022. The services under this assignment include the following tasks described in details below;

1. Overall assessment
2. Hydro module and irrigation ability;
3. Technical solution & verification of the command area;
4. Modify to the actual conditions of urban development.
5. Detailed Technical Assessment
6. Review of the Feasibility Study Report and Environmental and Social Screening Report;
7. Review of the BoQs for construction of manholes and installation of 165 flowmeters for the entire irrigation scheme and New Regulation Structure in the main canal;
8. Review detail design and BoQs for three irrigation sub-systems (Qerim, Janosh and Sector D) and two pumping stations (Janosh and Qerim) that will undergo the rehabilitation process;
9. Review the detail design and BoQ for power supply, electric installation and automation;
10. Review of completed Technical Specifications, including Construction Standards and Norms;
11. Spot check of topography through random terrain level control;
12. Complete detail design and technical specification as needed.
13. Terms of reference for project supervision
14. Prepare ToR for supervision of rehabilitation works to be undertaken.

**5. Implementation Duration**

The work schedule and milestones will be coordinated with the MAFRD and Radoniqi-Dukagjini Regional Irrigation Company.

The assignment is expected to start in early October 2022 with duration of 7 weeks. The activities and tasks should be implemented as per defined timelines shown under deliverables.

The **cumulative** level of efforts for the whole team for this assignment is **127 staff-days.**

**6. Deliverables**

The Consultant will prepare and submit to the Client the following:

Report on technical review of available design and documentations 3 weeks from contract signature

Report on ground trothing, hydraulic modelling, terrain and topography control 3 weeks from contract signature

Complete detail design and technical specification as needed 7 weeks from contract signature

Reviewed Environmental and Social Screening Report 7 weeks from contract signature

Final Bill of Quantities and Cost Estimates (total and for each irrigation sub-system) 7 weeks from contract signature

ToR for the supervision of rehabilitation works 7 weeks from contract signature.

Electronic version of documents to be submitted on CDs in Word, AutoCAD and Excel.

**7. Requested Experience and consultancy team**

The Consultant must provide documented evidence that in the last six years they designed and supervised at least two similar projects in length and complexity and have experience in scheme modernization including SCADA.

All key staff should have relevant professional experience in designing or construction of pressurized and open canal irrigation or water supply structures. The consultancy team should employ the following staff to participate in the review of the irrigation system designs at the suggested sub/project areas, with the minimum qualifications required as below:

Key experts:

* Team leader/design engineer, minimum MSc. in irrigation engineering, civil engineering or similar, (hydraulic or Irrigation engineer), with extensive design experience (a minimum of 10 years) in irrigation or pressurized water design projects. Demonstrated skills in project planning and management, as well as technical experience and understanding gained through a career in I&D development, an advantage.
* Design engineer, M.Sc in irrigation engineering or similar with experience in design, designing of irrigation or water supply systems and hydraulic calculations with minimum of 5 years’ experience;
* Electro-mechanical engineer, MSc in Electrical Engineering – Energy, specialized in energetic, with experience in the area of irrigation or pressurized water systems, SCADA. Minimum of 10 years proven experience in relevant professional work is required;
* Environmental and Social specialist with a minimum of 5 years proven experience in relevant professional works;

**Non Key Experts**

The consultancy should include also in the team non-key experts in the following area of expertise:

1. Survey engineer, MSc in civil engineering- geodesy with minimum 3 years’ survey experience on development of maps and graphs, using GIS software and related equipment;
2. Hydraulic design engineer, MSc civil engineer in the hydro technical sciences with minimum 3 years’ experience in hydraulic analysis and design;
3. Electrical engineer, MSc Electrical Engineer with a minimum 3 years’ experience in the area pressurized water systems
4. Automation technician, with a high school diploma, or associate degree in automation technology and electrical skills. Experienced in the installation, operation and maintenance of computer and SCADA systems used in various sectors.

Full proficiency in English professional conversation, reading and report writing is required of all Key Staff.

Interested Consultants should provide information in their application demonstrating that they have the required qualifications and relevant experience to perform the Services. The CVs of key staff (including their qualification experience) will not be taken into consideration for evaluation of the firms’ application; however, the first ranked firm will be required to fulfill the above key staff qualification/experience requirement during contract negotiations.

The evaluation criteria for short listing are:

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| --- | --- |
| **Criteria/Sub-Criteria** | **Maximum Scores** |
| **Consultant Firm - Specific Experience:**  Demonstrated experience with implementation of similar assignments, in the last 6 years in design in irrigation and water sector | **30 Points** |
| Proven relevant experience with at least 2 assignments in the last 6 years on water resources management, analyses of hydrological and hydraulic calculations as well as on electrical and automation system/SCADA | **70 Points** |
| **TOTAL SCORES:** | 100 Points |

The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank’s Guidelines: [*Guidelines: Selection and Employment of Consultants [under IBRD Loans and IDA Credits & Grants] by World Bank Borrowers*](http://www.worldbank.org/html/opr/consult/contents.html) dated January 2011 revised July 2014 (“Consultant Guidelines”), setting forth the World Bank’s policy on conflict of interest.

Consultants may associate with other firms in the form of a joint venture or a sub consultancy to enhance their qualifications. A Consultant will be selected in accordance with the Consultants’ Qualifications (CQ) method set out in the above-mentioned Consultant Guidelines, and following the above-mentioned evaluation criteria.

Further information can be obtained at the address below during office hours i.e. 08:00 to 16:00 hours. Expressions of interest must be delivered in a written form to the address below (in person, or by mail, or by e-mail) **by September 19, 2022 until 10:00 hrs.**

**Agriculture and Rural Development Project (ARDP)**

Project Implementation Unit – PIU

Mother Theresa Road Nr. 61, Floor - 3rd, Nr. 5, 10 000 Pristina, Kosovo

E-mail: [ardp.procurement@gmail.com](mailto:ardp.procurement@gmail.com)