Request for Quotation (RFQ) for Services

Provision of Technical Documentation for Protection from Erosion and Torrents in the Jablanica River Basin

RFQ Ref No: UNOPS-EP-2016-S-032

Version: v2016.1

Invitation letter

Dear Sir/Madam,

Subject: Request for Quotations for provision of technical documentation for protection from erosion and torrents in the Jablanica river basin – RFQ Case No.: UNOPS-EP-2016-S-032.

The United Nations Office for Project Services (hereinafter referred to as UNOPS) is pleased to invite prospective bidders to submit a quotation for the provision of services in accordance with the UNOPS General Conditions of Contract and the Schedule of Requirements as set out in this Request for Quotation (RFQ).

The RFQ consists of the following:

- This RFQ Invitation Letter
- Section I: RFQ Particulars
- Section II: Instructions to Bidders
- Section III: Schedule of Requirements
- Section IV: Returnable Bidding Forms
    - Form A: Quotation Submission Form
    - Form B: Price Schedule Form
    - Form C: technical Quotation Form
    - Form D: Previous Experience Form

If you are interested in submitting a quotation in response to this RFQ, please prepare your quotation in accordance with the requirements and process as set out in this RFQ and submit it to UNOPS by the deadline for quotation submission set out in the Section I: RFQ Particulars.

We look forward to receiving your quotation.

Approved by:

Name: Graeme Tyndall
Title: UNOPS RSOC Manager
Date: 15 April 2016

Section I: RFQ Particulars

Scope of Quotation	This RFQ refers to the provision of **Supply of services for provision of technical documentation for protection from erosion and torrents in the Jablanica river basin** as further described in Section III: Schedule of Requirements.
Contact person for correspondence, notifications and requests for clarifications	All correspondence, notifications and requests for clarifications in relation to this RFQ shall be sent to: srpc.procurement@unops.org United Nations Office for Project Services Republic of Serbia Operations Centre Šumatovacka 59 11000 Belgrade, Serbia **ATTENTION: quotations shall not be submitted to the above address but to the address for quotation submission as set out below.**
Clarifications	Requests for clarification from bidders will not be accepted any later than 25 April 2016. Responses to requests for clarification will be communicated through LBHT web site (http://www.sagradimodom.org) and European PROGRES website (www.europeanprogres.org) under RFQ Case UNOPS-EP-2016-S-032 (Public Calls/ I enders).
Quotation validity period	Quotations shall remain valid for acceptance by UNOPS for 90 days from the Deadline for Quotation Submission.
Quotation Currenc(ies)	Quotations shall be quoted in **RSD (Republic of Serbia Dinars)**. UNOPS reserves the right not to reject any bids submitted in another currency than the mandatory bidding currency stated above.
Duties and Taxes	All quotations shall be submitted net of any direct taxes, customs duties and indirect taxes and VAT.
Language of quotations	All quotations, information, documents and correspondence exchanged between UNOPS and the Bidders in relation to this RFQ process shall be in English.
Deadline for Quotation Submission	All quotations must be submitted by **27 April 2016, 12:00h.**
Quotation submission	Quotations must be submitted as follows: Quotation form must be completed signed and returned to UNOPS. The quotations must be made in accordance with the instructions contained in this request. All quotations must be submitted to the following address **Address: Šumatovačka 59, 11000 Belgrade, Serbia** **Or to E-mail: srpc.bids@unops.org** **Contact person: Suzana Tanaskovic** Quotations submitted shall be binding and valid for a period of ninety 90 days from the due date stated herein. Any prices accepted during this period will be considered firm/fixed for the resulting purchase order. The supplier agrees to acknowledge the purchase order in the form provided upon award, under the terms and conditions stated therein, and for the agreed amount.

Evaluation method and criteria	Quotations shall be evaluated to determine the lowest price most technically acceptable offer. Evaluation shall be conducted as follows: 1. **Preliminary Examination.** The following eligibility and formal criteria will be reviewed for compliance: - Bidder is eligible as defined in Instructions to Bidders, Article 3 - Completeness of the Quotation: all Returnable Bidding Forms and other documentation requested have been provided and are complete and properly signed - Bidder accepts UNOPS General Conditions of Contract and UNOPS General Conditions for Professional Services 2. **Qualifications of the Bidder** will be assessed as per below qualification criteria: - Bidder must be registered for provision of technical documentation or construction of hydro-technical structures and should be in continuous business for the last three (3) years - Bidder paid all local and national taxes; positive company's status proved by financial and solvency reports and total turnover of minimum RSD 50,000,000.00 within the last 3 years - Bidder has relevant experience proven by adequate reference letters and contracts with minimum aggregate amount of RSD 15,000,000.00 in the last 5 years - Proposed team of engineers has the required licenses, expertize and professional experience - Bidder has adequate equipment for geodesic and geological research - Bidder must also identify and disclose all information regarding any related entity/s, if any, by providing full legal name and address of the related entity/s. Should there be no related entities, the Bidder must provide a statement to that effect 3. **Technical compliance of the offered services.** The following technical criteria will be reviewed for compliance compared to UNOPS requirements: - Services offered, proposed work plan and detailed methodology in the quotation are compliant compared to the requirements in Section III: Schedule of Requirements. **4. Financial evaluation.** Quotations that are found to be technically acceptable shall be evaluated based on price and UNOPS will award the contract as per the lowest priced, most technically acceptable offer evaluation methodology. At any time during the evaluation process UNOPS may request clarification or further information in writing from Bidders. The Bidder's responses shall not contain any changes regarding the substance, including the technical and financial part of their quotation. UNOPS may use such information in interpreting and evaluating the relevant quotation.
Partial quotations	Partial quotations shall not be allowed. Bidders must quote prices for the total services for the total requirement requested under Section III: Schedule of Requirements. Evaluation will be done for the total requirement.

Documents comprising the Quotation	Bidders shall include the following documents in their quotation: • **Form A: Quotation Submission Form** • **Form B: Price Schedule Form** • **Form C: Previous Experience Form** • **Document from Business Registers Agency**, not older than 6 months from the date of the proposal; • **Tax administration receipts** that the company paid all local and national taxes or the proof that they are on the vendors/qualified bidders list with the Business Registers Agency – document not older than 6 months from the date of the proposal; • **Financial statements and solvency reports** for last 3 years to be provided proving minimum RSD 50,000,000.00 of total turnover within the last 3 years; • **Letters of Recommendation** supporting minimum 3 references listed in Previous Experience Form for producing of technical documentation for the protection from erosion and torrents in the basin of the river, during the last 5 years, out of which minimum 1 reference must be for the Design for Civil Permit or Main Design that includes Geotechnical research and provision of the geological conditions and geodetic survey for the purpose of the designing; • **Minimum 1 reference** supported by Letter of recommendation for the **execution of geodesic recording** for similar projects during the last 5 years; • **List of equipment for geodesic recording**; • **Minimum 1 reference** supported by Letter of recommendation for the **execution of geological research** for similar projects during the last 5 years; • **List of equipment for geological research**; • **Signed contracts** for provision of Technical Documentation for similar projects dealing with protection from erosion and torrents in the basin of the river. The aggregate amount of all contracts should be minimum RSD 15,000,000.00 in the last 5 years; • **CV of Team Leader** with background in projects dealing with protection from erosion and torrents in the basin of the river with 10 years of experience in design and valid licence for responsible designer no. 375 issued by Serbian Chamber of Engineers (or accredited by Serbian Chamber of Engineers). Lead Engineer must prove relevant professional experience in Main Designs during the last 5 years in at least 2 (two) Technical Documentation for similar Projects for the protection from erosion and torrents in the basin of the river, with decisions of appointment as responsible designer; • **List of minimum five proposed Team members/responsible designers as well as the personal CVs** and copies of valid professional licences issued by Serbian Chamber of Engineers (or accredited by Serbian Chamber of Engineers): - **one of them Forestry Engineer with a valid licence no. 375,** - **two of them Civil Engineer with valid licence no. 313 or 314,** - **one of them Geodetic Engineer with a licence no. 372** - **one of them Geological Engineer with a licence no. 391 or 392**, The five key experts from the Team members/responsible designers must have 5 years of experience in designing. All key experts must prove relevant professional experience and that each one of the key experts

	participated in developing at least 1 (one) Design for Civil Permit or Main Design for protection from erosion and torrents in the basin of the river; • **employment booklets or service contracts for minimum six (6) engaged personnel employed (Team Leader and five Team Members** - pursuant to Art. 197, 202, 199 of the Labour Legislation); • **Proposed work plan and detailed methodology/approach** • **Time schedule and manpower estimate**
Type of Contract to be awarded	UNOPS will sign the following contract with the awarded Bidder(s): **Contract for Services**
General Conditions of Contract	In the event of an order, the following conditions of contract will apply: UNOPS Conditions of Services for Contracts less than USD 50,000 in value The conditions are available at: http://www.unops.org/english/Opportunities/suppliers/how-we-procure/Pages/default.aspx
Signing of Contract	UNOPS plans to award the Contract by **06 May 2016**
UNGM registration	Any Contract resulting from this RFQ exercise will be subject to the supplier registration on United Nations Global Marketplace (UNGM) website. Vendors can register their company by accessing the website at www.ungm.org. The Bidder may still submit a quotation even if not registered with the UNGM, however, if the Bidder is selected for Contract award, the Bidder must register on the UNGM prior to Contract signature

Section II: Instructions to Bidders

1. SCOPE OF QUOTATION

Bidders are invited to submit a quotation for the goods and/or services specified in Section III: Schedule of Requirements, in accordance with this RFQ.

2. INTERPRETATION OF THE RFQ

This RFQ is an invitation to treat and shall not be construed as an offer capable of being accepted or as creating any contractual, other legal or restitutionary rights.

This RFQ is conducted in accordance with the applicable provisions of UNOPS Procurement Manual (latest version of which can be accessed at: https://www.unops.org/english/Opportunities/suppliers/how-we-procure/Pages/default.aspx) and other relevant Organisational Directives and Administrative Instructions that are referred to in the Procurement Manual. In case of contradictions between this ITB and the UNOPS Procurement Manual, the UNOPS Procurement Manual shall prevail.

3. BIDDER ELIGIBILITY

Bidders may be a private, public or government-owned legal entity or any association with legal capacity to enter into a binding Contract with UNOPS.

A Bidder shall not be eligible to submit a quotation if and when at the time of quotation submission, the Bidder:

i. is included in the Ineligibility List, hosted by UNGM, that aggregates information disclosed by UNOPS (UNOPS Ineligibility List) and other Agencies, Funds or Programs of the UN System;
ii. is included in UN/PD's suspended and removed vendors list;
iii. is included in the Consolidated United Nations Security Council Sanctions List, including the UN Security Council Resolution 1267/1989 list;
iv. is included in the World Bank Corporate Procurement Listing of Non-Responsible Vendors and World Bank Listing of Ineligible Firms and Individuals;

All Bidders are expected to embrace the principles of the United Nations Supplier Code of Conduct, given that it originates from the core values of the Charter of the United Nations. UNOPS also expects all its suppliers to adhere to the principles of the United Nations Global Compact.

4. CLARIFICATION OF THE RFQ

Bidders may request clarification in relation to the RFQ or bid process by submitting a written request to the contact stated in the **Section I: RFQ Particulars**, until the time stated in **Section I: RFQ Particulars**. Explanations or interpretations provided by personnel other than the named contact person, will not be considered binding or official.

5. REMUNERATION FOR AND COSTS OF QUOTATIONS

Bidders shall not be entitled to any remuneration or compensation for the preparation and submission of their quotation.

6. QUOTATION CURRENC(IES)

The quotation shall be made in the currenc(ies) stated in **Section I: RFQ Particulars**. If applicable, for comparison and evaluation purposes, UNOPS will convert the quotations into USD at the official United Nations rate of exchange in force at the time of the deadline for quotation Submission.

UNOPS reserves the right not to reject any quotation submitted in a currency other than the mandatory bidding currenc(ies). UNOPS may accept quotation s submitted in another currency than stated above if the Bidder confirms during clarification of quotations in writing that it will accept a Contract issued in the mandatory quotation currency and that for conversion the official United Nations operational rate of exchange of the day of RFQ deadline as stated in Section I: RFQ Particulars shall apply. Regardless of the currency of quotations received, the Contract will always be issued and subsequent payments will be made in the mandatory bidding currency above.

Rates in quotations shall be fixed. Quotations with adjustable rates shall be disqualified.

7. DUTIES AND TAXES

Article II, Section 7, of the Convention on the Privileges and Immunities provides, inter alia, that the United Nations, including UNOPS as a subsidiary organ, is exempt from all direct taxes, except charges for public utility services, and is exempt from customs restrictions, duties, and charges of a similar nature in respect of articles imported or exported for its official use. All quotations shall be submitted net of any direct taxes and any other taxes and duties, unless otherwise specified in **Section I: RFQ Particulars**.

8. PAYMENT TERMS

UNOPS will ordinarily effect payment within 30 days after receipt of the goods/services and on submission of payment documentation. Time in connection with discounts offered for accelerated payment will be computed from the date of receipt of payment documents by UNOPS. Payment discounts will not be considered in the financial evaluation.

9. PUBLICATION OF CONTRACT AWARD

UNOPS shall publish in its website (https://data.unops.org) information regarding the purchase order(s) awarded as a result of this RFQ.

10. ETHICS AND PROSCRIBED PRACTICES

UNOPS requires that all Bidders observe the highest standard of ethics during the entire RFQ process, as well as the duration of any Contract that may be signed as a result of this process. Therefore, all Bidders shall represent and warrant that they:

(i) have not unduly obtained, or attempted to unduly obtain, any confidential information in connection with the RFQ process and any Contract that may be signed as a result of this RFQ process;

(ii) have no conflict of interest that would prevent them from entering into a Contract with UNOPS, and shall have no interest in other parties involved in this RFQ process or in the project underlying this RFQ process;

(iii) have not engaged, or attempted to engage, in any Proscribed Practices in connection with this RFQ process or the Contract that may be awarded as a result of this RFQ process. For the purposes of this provision, Proscribed Practices are defined in the UNOPS Vendor Sanctions Procedures, and include: corrupt practice, fraudulent practice, coercive practice, collusive practice, unethical practice and obstruction.

11. AUDIT

UNOPS may conduct investigations relating to any aspect of the Contract award at any time during the term of the Contract and for a period of three (3) years following the expiration or prior termination of the Contract. The Contractor shall provide its full and timely cooperation with any such inspections, post-payment audits or investigations. Such cooperation shall include, but shall not be limited to, the Contractor's obligation to make available its personnel and any relevant documentation for such purposes at reasonable times and on reasonable conditions and to grant to UNOPS access to the Contractor's premises at reasonable times and on reasonable conditions in connection with such access to the Contractor's personnel and relevant documentation. The Contractor shall require its agents, including, but not limited to, the Contractor's attorneys, accountants or other advisers, to reasonably cooperate with any inspections, post-payment audits or investigations carried out by UNOPS hereunder

12. BID PROTEST

Any Bidder that believes to have been unjustly treated in connection with this RFQ process or any Contract that may be awarded as a result of such RFQ process may submit a complaint to UNOPS' General Counsel. More information about bid protests can be found on UNOPS' website at www.unops.org.

Section III: Schedule of Requirements

TERMS OF REFERENCES

For the Preparation of Technical Documentation of Conceptual Design, Design for Construction Permit and Detailed Design for Protection from Erosion and Torrents in the Jablanica River Basin

1. INTRODUCTORY NOTES AND ISSUES

The Jablanica River is a left tributary to the Južna Morava which it joins at the village Pečenjevac. It is fed by the Golema and Tularska rivers' that merge at the village Maćedonci, springing from the foot of Mountain Goljak. The largest tributaries to the Jablanica River are the Šumanska River, Gajtanska River and Lapaštica.

- The river basin's area covers A = 895 km^2
- The main watercourse length is L = 83,2 km
- Typical discharges are as follows:
  - $Q_{1\%}$ = 293 m^3/sec
  - $Q_{2\%}$ = 257 m^3/sec
  - $Q_{5\%}$ = 209 m^3/sec

The formative tributaries are running through mountain land and have a big fall, gorge-like ravines and numerous rapids. Jablanica itself has similar features in its course to Lebane, i.e. to the entrance to the Leskovac Basin. In the Leskovac Basin it runs through a wide and shallow valley, with a slight fall and many a meander. Jablanica is a torrent carrying an enormous amount of material. It is the largest drying river (completely dries up over the summer and wintertime) in Serbia, and one of the biggest in Europe. The discharge itself is pretty unequal.

The Jablanica River used to overflow its bed quite often (1986, 1976, 1966...) and flood arable land, destroy carriageways, bridges, causing considerable material damage. The biggest, the most disastrous flood on this river took place in 1976, and it is believed that the discharge approximated the discharge of a hundred-year high waters. A defensive embankment was penetrated, in the vicinity of the Ćenovački Bridge, where large areas were flooded and a number of facilities torn down.

The general condition of the Jablanica river basin is characterized by the following:

- a prominent intensity of erosive processes in higher basin's segments,
- an unfavourable pluviometric regime,
- a scarce autochthonous vegetation,
- a torrential character of the main watercourse and its tributaries.

1.2. Works performed on arranging the bed and basin of the Jablanica River

Regulation of the Jablanica riverbed was done in parts, on several occasions, according to the following documentation:

- a part of regulation downstream from the Niš-Skoplje motorway, approximately 900 m long was completed in 1963/64 for the purpose of protecting the motorway and the tower of power line located at the beginning of the regulation. This regulation was done completely (minor riverbed and defensive embankments). The minor riverbed is 30 m wide at the bottom, the inclination of banks 1:1.5 and the height to the foreland 2.1m, the width of foreland 20 m, the fill-in height in foreland 1 m and reinforcement of the embankment crest 0.60 m.
- for the needs of SIZ of the water management "Main Design of Regulation of Južna Morava from the bridge on the route Brestovac-Gadžin Han to the confluence of Jablanica and Jablanica from the confluence to the existing regulation" was done in December 1984 by the designer VO "Velika Morava" Belgrade. The regulation was designed to receive high waters $Q_{5\%}$=220 m^3 and reference waters $Q_{2\%}$=263m^3. The profile with the bottom width of 30 m was approved, inclination of banks 1:1.5 and height to foreland 2.1m, width of foreland 20 m, fill-in height in foreland 0.80 m and reinforcement 0.15 m, or 3.1 m. Embankments are about 1m high, with the inclination of banks 1:2, width at the top 2.5 m. The friction coefficient (the Manning's one) for this section was approved at n_{gl}=0.03 i n_l=0.035. A transitional section was envisaged for the

embankment over 100 m length, for the purpose of adjusting to the existing regulation. A longitudinal fall of regulated riverbed was approved at 1.3 ‰. Regulation of Jablanica was made from the railway bridge to the Vinarce bridge (relative survey mark from 0+000 to km 12+210 (the Vinarce bridge) under the "Main Regulation Design" made by VRO "Velika Morava" Belgrade, in May 1990. According to this documentation, the riverbed was expanded, with stone linings of riverbed slopes, pilot holes and security concrete works in the area of KCM bridges were made (railway bridge, the bridge in Pečenjevac (1+038-1+172), Živkovo (3+415-3+440 i 5+073-5+103), Priboj (7+180-7+200), Zalužnje (7+884-8+033) and Vinarce (12+094-12+210) whereby high water level was lowered. A trapezoidal profile was approved with reinforcement 0.25-0.30m. The regulation was designed to receive high waters $Q_{1\%}$=268 m^3 with reinforcement 0.25-0.3 m, and riverbed slopes lining for $Q_{10\%}$=169 m^3 at the places of minor riverbed linings. A profile with the bottom width of 26m was approved (with concrete banks) and 28 m with secured beaching. The depth of riverbed is 3.5 or 3.80 with reinforcement. The falls of regulated riverbed differ by section, and they equal 0.92 ‰ in the farthermost upstream section, 1.17 -1.44 ‰ in the midstream section, and 1.17 ‰ in the farthermost downstream one. Minor riverbed had linings placed at more than 60 sites, and some 35 cut-offs were constructed.

- Regulation from Vinarce to Turekovac was made at some 8 km length, in 1980, where fortified embankments were made of broken stone, beaching and cut-offs.
- "The main design of protecting the City of Leskovac from torrential waters of the Jablanica River" was prepared by the designer - Centre for Water Supply Technologies "Hidrosanitas" Belgrade, in June 1977. According to this documentation, a minor riverbed is around 30 m wide, and from the axis of the riverbed regulation to the axis of embankment around 60 m. The information about referential discharges from the said 1977 design are as follows: Q_{sr}=4.47 m^3/s, $Q_{2\%}$=257 m^3/s, and $Q_{1\%}$=293 m^3/s.
- A right-bank embankment was constructed at Gornje Stopanje, at the confluence of new Hisar Channel 1 km long, width at the top of embankment 2 m, inclination of riverbed slopes 1:2. There is a tube-like outlet Ø 800 mm with a mica flap. There is also a belt along the embankment of 4m width, from the outer side. Alongside the new Hisar Channel there are reinforcement embankments on both sides 2x2.7 km, inclinations of riverbed slopes from the outer side 1:1.5 and from the inner side 1:1,3m wide at the top of embankment.
- A right-bank embankment was constructed from Vojlovac to Ćenovački Bridge of 4,735 km length, width at the top 2m and inclination of riverbed slopes 1:1.5. This embankment was overflown in 1965, after which its partial reinforcement was made only along the top, and based on the high water trails. After the big flood of 1976, when a disastrous flood afflicted Lebane and Leskovac, this embankment was reinforced again (in 1986) from the foot of outer and inner riverbed slope, about 0.5 m on average, so that the embankment reached the width at the top of 1.5 m, and inclination of riverbed slopes 1:1. This reinforcement was made only from km 0+000 to 1+500.
- After a disastrous flood in June 1976, regulation works were executed under the "Main design of regulation of the Jablanica River through Medveđa". The design was made by VRO „Velika Morava", Belgrade, the Erosion and Torrent Waters Department in June 1982. Under this design, regulation was made from km 0+837.10 to cut-off at km 2+240.62 i.e. about 200 m upstream from Bogdanovački (Gvozdički) creek in the period 1982-92. Typical discharges for the Jablanica River, computed by the method of predominant factors, in the documentation equal $Q_{1\%}$=258 m^3/s, $Q_{2\%}$=219 m^3/s for the section from the confluence of the Lapašnička River downstream, or $Q_{1\%}$=209 m^3/s, $Q_{2\%}$=177m^3/s for the upstream section. Under this project, regulation of the Jablanica River was envisaged from km 0+000 to km 3+505.77 (relative survey mark) and it is divided in two sections. The first section covers the Jablanica riverbed from the confluence of Lapaštica downstream, where the discharge profile was approved for $Q_{1\%}$=258 m^3/s, designed regulation fall J=0.004, the width of the minor riverbed bottom 20 m, depth of minor h=1.2 m, width of foreland 4.3 m, depth of foreland h=1 m, inclination of riverbed slopes 1:1, total width of regulated riverbed 33 m. At this section, 6 belts were designed, without useful height, at the beginning and end of curves. The second section covers the riverbed from the confluence of Lapaštica upstream where a discharge profile was approved for $Q_{1\%}$=209 m^3/s, the designed regulation fall J=0.004, width of the minor riverbed bottom 20 m, depth of minor h=1 m, width of foreland 3 m, depth of foreland h=1 m, inclination of riverbed slopes 1:1, total width of

regulated riverbed 30 m. 9 belts were designed in this section, without useful height, at the beginning and end of regulation curves.

- The works on regulation of the Lapašnička River were executed under the "Main design for arranging river basin, riverbed and regulation of lower course of the Lapaštica River from km 0+000 to km 1+270,80", prepared by SOUR "Srbijavode", VO "Velika Morava", the Erosion and Torrent Arrangement Department from Belgrade, in April 1982 and these works were performed from the junction with Jablanica to PR 20 i.e. to the kindergarten. Typical discharges for the Lapašnička River are computed by the method of predominant factors and equal $Q_{1\%}$=74.36 m^3/s, or $Q_{2\%}$=61.16m^3/s. A discharge profile was approved for $Q_{1\%}$=74 m^3/s, the designed regulation fall J=0.008, the width of the minor riverbed bottom 6 m, depth of minor h=1m, width of foreland 3 m, depth of foreland h=0,7 m, inclination of riverbed slopes 1:1, total width of regulated riverbed 15.4 m. The distance between the belts and cascades is L=100m.
- The spring for water supply of Medveđa is situated some 400 m upstream from the end of regulation (Batakovići settlement). For the needs of protecting the spring, or the facility, regulation works were executed in the length of some 250 m on the left bank of Jablanica. The executed works were adjusted to the regulation elements approved in the aforementioned "Main design of regulation of the Jablanica River through Medveđa". The design was developed by VP "Velika Morava" in 2001, Beograd.
- After a disastrous flood in June 1976, the "Main design of regulation of the Jablanica River through Lebane" was developed. The design was prepared by VO "Vranje" of Vranje, in 1977. According to this design, regulation was made along nearly the entire section envisaged by the design, i.e. around 2 km. The designed and executed regulation is a biconvex riverbed, with the designed regulation fall J=2.85 ‰, with the inclination from the bank towards the axis of regulation 1:3, the width of the minor riverbed bottom 30 m, the depth of minor h=15 m, the width of foreland 5 m, the depth of foreland h=2 m, the inclination of riverbed slopes 1:2 both in minor and foreland, total width of regulated riverbed 52 m. Typical discharges for the Jablanica River, according to this documentation are $Q_{1\%}$=270m^3/s, $Q_{2\%}$= 200m^3/s, Q_{sr}=4,0 m^3/s.
- Due to large width of the minor riverbed and low speeds, the river meanders and a large amount of sediments is accumulated. Therefore, in 2000, the design for the preparation of channel was made in minor riverbed between two main bridges, i.e. from km 44+861 to km 45+212. The works on this design have not been executed. This documentation suggested a construction of torrential barriers on right tributaries to the Šarački creek, Poroštički creek and the Lapaštička River.
- In the "Main design with a prior justifiability study, of arranging Južna Morava from Grdelica to the junction with Zapadna Morava" made by the Institute for the Development of Water Resources "Jaroslav Černi" a.d. Beograd, in December 2005, maximum annual discharges for the Jablanica River were provided : $Q_{0.01\%}$=390 m^3/s, $Q_{0,1\%}$=328 m^3/s, $Q_{1\%}$=250 m^3/s and $Q_{2\%}$=224 m^3/s.
- Among significant works on the tributaries in the Jablanica river basin regulation of the Banjska River in Sijarinjska Banja was performed. In the middle and upper watercourse section, biological works were performed such as afforestation and grassing of eroded areas.
- The Šumanka riverbed, passing through Lebane, is regulated from its confluence to Jablanica, further upstream in the length of some 800 m.
- In the Šarački creek, barriers from double wattle works were made in 2015, in the length of 30m`.

2. GOALS AND TERMS OF REFERENCE

- The designed works aim to protect the river basin from erosion and prevent the torrential floods with the application of the *Concept of Integral Development of Torrential Sub-river Basins.* The designed works should include biological, bio-technical and technical works.
- The biological works should involve the combination of the basic elements of vegetation: grass, shrubs and tall vegetation in order to prevent the erosion of the surface layer, reduce the surface runoff and increase the forest coverage coefficient.
- Bio-technical works, depending on topographic conditions and geo-mechanical characteristics, should involve the possibility to terrace the sides of valleys, to make steps, contour trenches, wattle-works etc.
- Technical works should involve the construction of depository-consolidation barriers, gabion barriers, thresholds, cascades, line regulation structures etc. In case there is a need to design technical works in the river bed itself, the planned structures should be tied up to the existing regulations and structures, and the

project documentation should be harmonized with the existing technical documentation for the development of the Jablanica river-bed.
- Terms of reference involve the production of technical documentation for the Detailed Design for Protection from Erosion and Torrents in the Jablanica river basin. Before the Detailed Design there should be the production of technical documentation for the Conceptual Design in order to obtain the location requirements and then comes the Design for Construction Permit for Protection from Erosion and Torrents in the Jablanica river basin in order to get the construction permit.

3. MAPS FOR DESIGN

3.1. Existing technical documentation

- "Main design of regulation of Jablanice from the Railway Bridge to the bridge in village Vinarce, from km 0+000 to km 12+210", designer VRO "Velika Morava" Beograd, May 1990
- "Main design of regulation of Južna Morava from the bridge on the Brestovac-Gadžin Han road to the confluence of Jablanice, and Jablanica from the confluence to the existing regulation", designer VRO "Velika Morava" Beograd, December 1984.
- "Main design of regulation of the Jablanica river through Lebane", designer VO "Vranje" from Vranje, 1977.
- "Main design of regulation of the Jablanica River through Lebane", designer VO "Vranje", 1977, Vranje.
- "Main design for arranging river basin, riverbed and regulation of the lower watercourse of the Lapaštice river from km 0+000 to km 1+270,80", designer SOUR "Srbijavode", VO "Velika Morava", Department for erosion and torrents from Belgrade, April 1982.
- "Main design for the protection of the City of Leskovac from torrential waters of the Jablanica River and waters from the Hisar Mountain slopes", designer – Centre for Water Supply Technologies "Hidrosanitas" – Beograd and Utility Business Company "Kompred" – Leskovac, June 1977.
- "Main design of regulation of the Jablanica River through Medveđa", designer - VP "Velika Morava" 2001, Belgrade.
- "Conceptual design of a complex use of water of the Šumanka river, designer – Institute for the Development of Water Resources "Jaroslav Černi" a.d, 1995, Belgrade.
- "Preliminary design, dams and accumulations Ključ, designer the Institute for the Development of Water Resources "Jaroslav Černi" a.d., 1999, Belgrade.
- "Main design, dam and accumulation – Key Phase I – pre-dam", designer the Institute for the Development of Water Resources "Jaroslav Černi" a.d., 2000, Belgrade.
- "Main design for the protection from erosion and arrangement of torrential courses of the Poroštički creek and Lapaštička river Lebane", designer the Institute for the Development of Water Resources "Jaroslav Černi" a.d., 2000, Belgrade.
- "Main design of regulation of the Grbički creek on the section through the town of Lebane", designer the Institute for the Development of Water Resources "Jaroslav Černi" a.d., March, 2007.
- "Main design for the anti-erosion protection and arrangement of torrential course of the Šarački creek Lebane", designer the Institute for the Development of Water Resources "Jaroslav Černi" a.d., June, 2006.

3.2. Survey maps

Survey maps should be made in accordance with the current regulations in order to provide the data for the design and execution of works on the structures. For production of technical documentation in question the cadastral and topographical plans will be used at the appropriate scale, to show the position of the structures: technical, bio-technical and biological and the detailed layout drawings for the design of structures.

3.2.1. *Survey maps for designing technical works*

In designing technical works (longitudinal and cross-section ones) it is necessary:
- to set an operative polygon along the right or left bank (according to the situation on the ground) of the treated river section, whose breaking points should be linked to the network of state-made surveying.
- to survey, from polygon points, approximately vertically relative to the existing watercourse, cross-section profiles at 20m distance by breaking point of the terrain, water indents, the largest riverbed depths and by

high banks, including the width of some 40 m (20 m to the left and to the right of the axis of the existing watercourse).
- based on the data about recorded detailed points to draft a layout plan, i.e. to map the surveyed detailed points and to form a detailed layout showing the riverbed by water indents and banks for positions, for all riverside facilities.
- The layout plan must involve cadastre lots. In particular, the layout should feature the water land. All points should be linked to the state-made survey.
- elevation points of water system, sewerage, ptt cables and any other installations, if any, must be drawn on the layout and cross-section profiles. The following facilities should be surveyed in detail: local and forest road, ducts etc.

3.2.2. *Survey maps for designing bio-technical works*

When designing bio-technical works, it is necessary to provide the exact location (xy-coordinates) for the planned facilities on the layout plan (cadastre-topographic map).

3.2.3. *Survey maps for designing biological works*

While designing the biological works it is necessary to show the surface area on which the protective biological works of afforestation and grass cultivation are planned on the layout drawing (cadastral-topographic map). For designing the biological works on the state-owned land (forest and agricultural land) the planning documents should be used (The Fundamentals of Forest Management and Agricultural Land Management Plans).

3.4. Geological maps

For preparing technical documentation, at the places of future barriers, a drill or excavated pitfall should be made, of up to 3m depth from the existing bottom of the riverbed. For separated lots – layers, samples should be taken and the same should be examined in a laboratory. Interpretation of the received results on geo-technical features of the relevant lots, should be presented in a separate study as an integral part of the erosion and torrent protection documentation in the Jablanica river basin. Geotechnical study should contain:

- a layout and explanation of the research works program
- a detailed overview of the lab examination results,
- an overview of geological and hydro-geological terrain characteristics,
- an overview of geotechnical terrain characteristics on the locations of designed facilities,
- a calculation of static and filtration soil stability and defining conditions for foundation engineering and the construction of technical facilities for erosion and torrent protection.

3.5. Hydrological maps

For the needs of preparing technical documentation, it is necessary to make a hydrological calculation of high waters of various reversion period for the water courses within the Jablanica river basin. This calculation should be made by latest methods for non-studied basins by using a solid set of data from the closest precipitation measuring stations, for $Q_{1\%}$, $Q_{2\%}$ and $Q_{5\%}$. For the computed water $Q_{1\%}$ should be approved. The obtained results require the opinion of the Republic Hydro-meteorological Service (RHMZ) of Serbia.

3.6. Hydraulic maps

Based on the developed surveying, geological and hydrologic maps, as well as the obtained and required opinions, terms and consents from the competent institutions, a hydraulic calculation should be made, along with a prior analysis of the existing terrain and facilities on the route concerned, for the computed high water. Based on the calculated level of water and longitudinal falls, facilities for retaining bed load should be designed, as well as stabilization of the river bottom, bearing in mind the features of the Jablanica River, the damages caused by torrential waters and sediments.

4. ACTIVITIES ON DRAFTING DESIGNS AND THE CONTENT OF DESIGNS

4.1. Conceptual design

Conceptual design for the erosion and torrent protection in the Jablanica river basin should comprise the following:

- Main book of conceptual design consisting of the main content from Attachment 1, *the Rules on the content, method and procedure of preparing and controlling of technical documentation as pre the class and purpose of facilities* ("Official Gazette of RS", no. 23/2015):
  - Information regarding the name and address of the Investor carrying out the facility construction
  - Abstract from the court register for the company that produced the design
  - Design authorizations for the persons who took part in the preparation of the design
  - A decision on determining chief and responsible designer
- General documentation of the Conceptual Design consists only of the mandatory content as determined in Article 28, Schedule 9, of the *Rulebook.*
  - Textual documentation of the Conceptual Design contains a technical description of designed facilities
  - Numeric documentation of the Conceptual Design contains a layout of areas of facilities indicating purpose and number of functional units
  - Graphical documentation of the Conceptual Design contains graphic schedules in a relevant scale:
    - a layout plan including the position of facilities on a location, shown size, dimensions, typical elevation points, distance from neighbouring lots and facilities (1:1000–1:200),
    - bases, typical cross-sections and appearance of facilities (1:500–1:200).
  - Graphic documentation of conceptual design for linear regulation facilities contains graphic schedules in relevant scales:
    - site plan and longitudinal route profile (1:25000–1:2500),
    - general dispositions of large facilities,
    - typical cross-section profile (1:100–1:25).
- Conceptual design for engineering facilities contains such parts that are required for issuing location requirements, according the rules of profession.
- Obtaining the entire documentation (location-related information, copies of the plan, certificates of title, cadastre and topographical plans, etc.) required for issuing location requirements.
- Obtaining of location requirements.

4.2. Design for Construction Permit and Detailed Design

Design for construction permit is developed in order to obtain the decision on construciton permit. The design for construction permit has to contain the statement of the main designer, responsible designer and the person executing technical control, confirming that the design was done in accordance with the location requirements, regulations and rules of profession.

Main project is developed for executing the construction works. The detailed design is a set of harmonized designs determining construction, technical, technological and exploitation features of the structure with equipement and installations, technical, technological and organisational solutions for the construction of structure, investment value of the structure and conditions for maintenance of the structure. The detailed design has to contain the statement of the main designer and responsible designers confirming that the design was done in accordance with the location requirements, construction permit, design for construction permit, regulations and rules of profession.

Design for Construction Permit and Detailed Design for Protection from Erosion and Torrents in the Jablanica river basin should contain:

- General documentation for the design,
- Terms of reference verified by the Investor,
- Textual documentation:
  - Technical report:
    - Description of river basin and river bed
    - Basic parameters of the river basin
    - Overview of the main problems in the river basin, on the main watercourse and tributaries
    - Hydrographic features of the river basin (hydrograpic map)
    - Geological features of the river basin (geological map)
    - Pedologic features of the river basin (pedologic map)

    - Manner of soil usage (Map of soil usage)
    - Erosion in river basin (Map of erosion)
  - Bill of quantities - BoQ
  - Estimated BoQ
  - Technical conditions for execution of works
- Numerical documentation:
  - Coordinates and levels of geodetic points that will be used during the construction
- Workplace safety measures
- Measures for prevention of negative impacts on the environment in the period of works execution
- Survey maps (topographic - cadastral maps)
- Clear map of the area at the scale of 1: 25 000
- Hydrologic calculation (maximum water discharge)
- Calculation of production and carrying through the sedimentation
- Concept of designed solutions with explanation for adopted solutions for protection from sedimentation
- Order of executing works
- Graphic annexes:
    - Layout drawing, scale of 1:1000
    - Longitudinal section, scale of 1:100/1000
    - Cross section, scale of 1:100
    - Drawings of transverse structures scale of 1:100
    - Structure details, scale of 1:20

NOTE:

- The investor does not possess other technical documents set forth in section 4.1. of the existing technical documentation. The investor had an insight into the said technical documents during his work on specific matters. It is presumed that technical documents are held with local governments and competent public enterprises in charge of the tasks from this scope.
- Based on the referenced designs, technical works have not been executed thus far, but only a part of biological protective works of afforestation in the basin and preparation of bio-technical protective works – wattle works. The basin of the Šarački creek, Grbički creek, Poroštički creek and Lapaštička River, represent torrential sub-basins of the Jablanica River. Given that anti-erosion protection designs have already been developed for these basins, novation of the existing technical documents will be done for these basins through newly designed works for the Jablanica River. Technical audit was performed for the subject designs, and Reports can be taken over from the Investor. For the *''Main design of protection from erosion and arrangement of torrential courses Poroštički creek and Lapaštička river Lebane"* a negative Report on technical audit of the design was delivered. For technical documents of the "*Main design of regulation of the Grbički creek on the section through the town of Lebane"* and "*Main design for anti-erosion protection and arrangement of torrential course Šarački creek Lebane"* a positive Report on Technical Audit was delivered, accompanied with a note that it is necessary to make some minor amendments.
- All necessary requirements for design stipulated in the Law on Planning and Construction, will be obtained by the designer on behalf of Public Water Management Company "Srbijavode" at his own expense, which involves the preparation and submission of request and production of offprints and documents needed to get the requirements, opinions and consents that they will obtain with authorization (proxy) issued by the PWMC "Srbijavode". The costs of the document preparation will be calculated in the price of production of technical documentation through the specification of works compliant with the terms of reference.
- The financier is obliged to engage the technical control of project documentation after the production of technical documentation for the Design for Construction Permit so that after the commission for technical control provides a positive opinion the designer may continue to obtain other acts (water consent) and construction permits and start with production of the Detailed Design.

The Design is made in 6 printed copies and 2 digital copies on CDs. The digital copies are submitted so that one copy is in PDF format and the other contains the text in Word, tables in Excel, databases in Access, drawings in DWG and spatial data in Shape format. The design is accompanied by submitted originals of all collected requirements, consents, opinions, solutions and maps (copies of plans and certificates of title) during the production of technical documentation.

Deadline for the production of design is one year from the day of mutual signing of the contract for the production of design.

Section IV: Returnable Bidding Forms

Note to Bidders: Instructions to complete each Form are highlighted in blue in each Form. Please complete the Returnable Biding Forms as instructed and return them as part of your quotation.

The following returnable forms are part of this RFQ and must be completed and returned by bidders as part of their Quotation.

Form A: Quotation submission form

Bidders are requested to complete this form, sign it and return it as part of their bid submission. The bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Date: [Insert submission date]

Subject: Quotation for the supply of [*Insert a brief description of goods/services*] in [*Name of country/city*], RFQ Case No.[insert RFQ ref number], dated **[insert date]**

We, the undersigned, declare that:

a. We offer to supply in conformity with the bidding documents, including the UNOPS General Conditions of Contract.

b. Our quotation shall be valid for the period of time of [insert number of days which shall not be less than the specified in Section I: Bid Particulars, Period of Validity of Bids] from the date fixed for the bid submission deadline as set out in the RFQ, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

c. We have no conflict of interest in any activity that would put it, if selected for this assignment, in a conflict of interest with UNOPS;

d. Our firm confirms that the offeror and sub-contractors have not been associated, or had been involved in any way, directly or indirectly, with the preparation of the design, terms of references and/or other documents used as a part of this solicitation;

e. Our firm, its affiliates or subsidiaries—including any subcontractors or suppliers for any part of the Contract—has not been declared ineligible by UNOPS, nor is included in the suspended/ineligibility list of the UN/PD, other UN Agencies, the UN Security Council, and the World Bank, in accordance with Instructions to Bidders Article 3, Eligibility;

f. We embrace the UN Supplier Code of Conduct and adhere to the principles of the UN Global Compact

g. We have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future.

h. We have not offered and will not offer fees, gifts and/or favours of kind in exchange for this RFQ and will not engage in any such activity during the performance of any Contract awarded.

I, the undersigned, certify that I am duly authorized by [***insert full name of bidder***] to sign this quotation and bind [***insert full name of bidder***] should UNOPS accept this quotation:

Name: [complete]
Title: [complete]
Signature: _____

Provide the name and contact information for the primary contact from your company for this quotation:

Name: [complete]
Title: [complete]
Email address: [complete]
Telephone: [complete]

Form B: Price Schedule Form

Bidders shall fill in this Price Schedule Form in accordance with the instructions indicated.

RFQ reference no: [insert RFQ reference No.]

Currency	RSD

	Description	**Total price**
1.	**Preparation of Technical Documentation of Conceptual Design, Design for Construction Permit and Detailed Design for Protection from Erosion and Torrents in the Jablanica River Basin**	insert

Payment terms 30 days accepted: ☐ Yes

List of subcontractors or suppliers

Bidder must identify the names of all subcontractors/suppliers who will be providing good/services under this Contract and the type of work being subcontracted, if applicable.

(A) [Full legal name and address of subcontractors]

(B) _____

(C) _____

I, the undersigned, certify that I am duly authorized by [***insert full name of Bidder***] to sign this quotation and bind [***insert full name of Bidder***] should UNOPS accept this quotation:

Name : _____

Title : _____

Date : _____

Signature : _____

Form C: Technical Quotation Form

Section 1: Offeror's qualification, capacity and expertise	
1.1	**Brief description of the organization, including the year and country of incorporation, and types of activities undertaken** [Insert response here]
1.2	**Relevance of specialised knowledge and experience on similar engagements done in the country/region** [Insert response here]

Section 2: Proposed Methodology, Approach and Implementation Plan	
2.1	**Understanding of the requirement, description of available mechanisms and tools; how they shall be adopted and used for a specific requirement** [Insert response here]

Section 3: Key personnel proposed

3.1

Name and Nationality	Position to be Assumed in this Contract	Requirements as per Terms of reference
[Insert]		*Copy the requirements in the TOR*
[Insert]		
[Insert]		
[Insert]		
[Insert]		
[Insert]		

3.2	**Qualifications of key personnel proposed** [For each of the names identified above, attach his/her CV

Name : _____

Title : _____

Date : _____

Signature : _____

Form D: Previous Experience Form

RFQ reference no: [insert RFQ reference No.]
Name of Bidder: [insert name of Bidder]

Description of services/goods	Country	Total amount of Contract	Contract Identification and Title and Contact details of Client: (Name, Address, telephone, email, fax)	Year project was undertaken

Name : _____

Title : _____

Date : _____

Signature : _____