# DEPARTMENT OF IRRIGATION KHYBER PAKHTUNKHWA



# **REQUEST FOR PROPOSAL DOCUMENTS**

# FOR PROCUREMENT OF CONSULTANCY SERVICES

Name of Work: Feasibility Study & Detailed Design of

**Detention Dams in Upper Swat for flood** mitigation & regulation of flows in

downstream area.

ADP No. 1877/240201 (2024-25)

Issued to:

M/S			
, ,, <u>,</u>	 	 	

# **EXECUTIVE ENGINEER SWAT IRRIGATION DIVISION-II, MATTA**

#### **DOCUMENTS BASED ON**

# Dated Peshawar the May 03, 2016 TABLE OF CONTENTS

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# **Section 1**

# **Letter of Invitation/ Request for Proposals**

Letter	of Inv	itation	1

#### Dear Mr./Ms.:

- The Irrigation Department Government of Khyber Pakhtunkhwa (hereinafter called "Procuring Entity" now invites proposals to provide the following consulting services: "FEASIBILITY STUDY & DETAILED DESIGN OF DETENTION DAMS IN UPPER SWAT FOR FLOOD MITIGATION & REGULATION OF FLOWS IN DOWNSTREAM AREA" ADP No. 1877/240201 (2024-25).
- More details on the services are provided in the Terms of Reference.
- This *Request* for Proposal (RFP) has been published in national newspapers. (It is not permissible to transfer this invitation to any other firm)
- A firm will be selected under QCBS Selection Method with 80:20 ratio for technical and financial proposals respectively and procedures described in this RFP, in accordance with the KPPR 2014.
- The RFP includes the following documents:
  - Section 1 Letter of Invitation
  - Section 2 Instructions to Consultants
  - (including Data Sheet)
  - Section 3 Technical Proposal Standard
  - **Forms**
  - Section 4 Financial Proposal Standard Forms
  - Section 5 Terms of Reference
  - Section 6 Standard Forms of Contract
- Please inform us in writing at the following address [Office of the Executive Engineer Swat Irrigation Division II, Matta District Swat ], upon receipt:
  - that you received the RFP (Request for Proposal) and
  - Whether you will submit a proposal alone or in association.

Yours sincerely, EXECUTIVE ENGINEER Swat Irrigation Division II, Matta Phone & Fax: 0946-791221

E-Mail: xenirrimatta@gmail.com

# **Section 2**

### **Instructions to Consultants**

#### **Instructions to Consultants**

#### Definitions

- "Procuring Entity (PE)" means the department with which the selected Consultant signs the Contract for the Services.
- "Consultant" means a professional who can study, design, organize, evaluate and manage projects or assess, evaluate and provide specialist advice or give technical assistance for making or drafting policies, institutional reforms and includes private entities, consulting firms, legal advisors, engineering firms, construction managers, management firms, procurement agents, inspection agents, auditors, international and multinational organizations, investment and merchant banks, universities, research institutions, government agencies, nongovernmental organizations, and individuals
- "Contract" means an agreement enforceable by law and includes General and Special Conditions of the contract.
- "Data Sheet" means such Part of the Instructions to Consultants that is used to reflect pacific assignment conditions.
- "Day" means calendar day including holiday.
- "Government" means the Government of Khyber Pakhtunkhwa.
- "Instructions to Consultants" (Section 2 of the RFP) means the document which provides Consultants with all information needed to prepare their Proposals.
- "LOI" (Section 1 of the RFP) means the Letter of Invitation sent by the procuring Entity to the Consultant.
- "Proposal" means the Technical Proposal and the Financial Proposal.
- "RFP" means the Request for Proposal prepared by the Procuring Entity for the selection of Consultants.
- "Sub-Consultant" means any Person or entity to whom the Consultant subcontracts any Part of the Services.
- "Terms of Reference" (TOR) means the document included in the RFP as Section 4 which explains the objectives, scope of work, activities, tasks to be Performed, respective responsibilities of the procuring Entity and the Consultant, and exacted results and deliverables of the assignment.

#### 2. Introduction

- Irrigation Department Govt of Khyber Pakhtunkhwa the Procuring Entity named in the Data Sheet will select a consulting firm/organization (the Consultant) from those who submit proposals in response to Invitation/ press advertisement, in accordance with the method of selection, Quality and Cost Based Selection (QCBS) as per KPPRA Rules.
- The Shortlisted Consultants are invited to submit a Technical Proposal and a Financial Proposal, as specified in the Data Sheet. The Proposal will be the basis for contract negotiations and ultimately for a signed Contract with the selected Consultant.
- Consultants should familiarize themselves with rules / conditions and take them into account while preparing their Proposals. Consultants are encouraged to attend a pre-proposal conference if one is specified in the Data Sheet. Attending the pre-proposal conference is, however optional. Consultants may liaise with Irrigation Department Govt of Khyber Pakhtunkhwa representative named in the Data Sheet for gaining better insight into the assignment.
- 2.4 Consultants shall bear all costs associated with the preparation and submission of their proposals and contract negotiation. The Irrigation Department Govt of Khyber Pakhtunkhwa reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Consultants.
- 2.5 Irrigation Department Govt of Khyber Pakhtunkhwa may provide facilities and inputs as specified in Data Sheet.

#### 3. Conflict of Interest

- 3.1.1 Consultants are required to provide professional, objective, and impartial advice and holding the Irrigation Department Govt of Khyber Pakhtunkhwa interests Paramount. They shall strictly avoid conflict with other assignments or their own corporate interest. Consultants have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of the Procuring Entity, or that may reasonably be perceived as having such effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Contract.
- 3.1.2 Without limitation on the generality of the foregoing, Consultants, and any of their affiliates, shall be considered to have a conflict of interest and shall not be recruited, under any of the circumstances set forth below:
- (i). A consultant that has been engaged by the Irrigation Department Khyber Pakhtunkhwa to provide goods, works or services other than consulting services for a project, any of its affiliates, shall be disqualified from providing consulting services related to those goods, works or services. Conversely, a firm hired to provide consulting services for the preparation or implementation of a project, any of its affiliates, shall be disqualified from

	and a support of the
	subsequently providing goods or works or services other than consulting services resulting from or directly related to the firm's consulting services for such preparation or implementation.  (ii). A Consultant (including its Personnel and Sub Consultants) or any of its affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant to be executed for the same or for another Procuring Entity.  (iii).A Consultant (including its Personnel and Sub Consultants) that has a business or family relationship with a member of the Procuring Entity's staff who is directly or indirectly involved in any Part of (i) the preparation of the Terms of Reference of the Assignment, the selection process for such assignment, or (iii) Supervision of the Contract may not be awarded a Contract, unless the conflict stemming from this relationship has been resolved.
C C:	• Government officials and civil servants may be hired as
Conflicting Relationships	consultants only if:
Relationships	They are on leave of absence without Pay;
	• They are not being hired by the Entity they were working
	for, six months prior to going on leave; and
	(iii) Their employment would not give rise to any conflict of
4 F1 1	interest.
4. Fraud and	It is Government's policy that Consultants under the contract(s), observe the highest standard of ethics during the procurement and
Corruption	execution of such contracts. In pursuit of this policy, the Irrigation
	Department Khyber Pakhtunkhwa follows the instructions contained
	in Khyber Pakhtunkhwa Public procurement Rules 2014 which
	defines:
	" corrupt and fraudulent practices" includes the offering, giving, receiving, or soliciting, directly or indirectly of anything of value to
	influence the act of another Party for wrongful gain or any act or
	omission ,including misrepresentation, that knowingly or recklessly misleads or attempt mislead a Party to obtain a financial or other
	benefit or to avoid an obligation;
	Under Rule 44 of KPPR 2014, "The PE can inter-alia blacklist
	Bidders found to be indulging in corrupt or fraudulent practices.
	Such barring action shall be duly publicized & communicated to the
	KPPRA. Provided that any supplier or contractor who is to be
5 Into anity Doot	blacklisted shall be accorded adequate opportunity of being heard"  Purguent to acction 16(2)(2) of KDDDA Act 2012 Consultant
5. Integrity Pact	Pursuant to section 16(2)(3) of KPPRA Act 2012 Consultant undertakes to sign an Integrity Pact in accordance with prescribed
	format attached hereto for all the procurements estimated to exceed
	Rs.2.5 million. (Annex- A)
6. Eligible	6.1 The consultants that have valid PEC Registration, as
Consultants	outlined under Rule 25 and 26 of KPPRA 2014 for the Contract(s)
	for which these RFP documents are being issued, those firms - in
	case of Joint Ventures with the same Partner(s) and Joint Venture structure - are eligible.
	6.2 Consultants having valid PEC Registration are eligible.
7.Eligibility of	Sub Consultants are not eligible & applicable.
Sub Consultants	
8.Only One Proposal	Consultants may only submit one proposal. If a Consultant submits
	or participates in more than one proposal, such proposals shall be
O Duon 1 37 1' 1'	disqualified.
9. Proposal Validity	9.1 As indicated in the Data Sheet the proposals validity is 90

10. Clarifications & Amendments in RFP Documents	days. During this Period, Consultants shall maintain the availability of Professional staff nominated in the Proposal. The Irrigation Department Govt of Khyber Pakhtunkhwa will make its best effort to complete negotiations within this period. Should the need arise; however, the Irrigation Department may request Consultants to extend the validity period of their proposals. Consultants who agree to such extension shall confirm that they maintain the availability of the Professional staff nominated in the Proposal, or in their confirmation of extension of validity of the Proposal, Consultants may submit new staff in replacement, who would be considered in the final evaluation for contract award. Consultants who do not agree have the right to refuse to extend the validity of their Proposals.  10.1 Consultants may request for a clarification of contents of the bidding document in writing, and Irrigation Department shall respond to such queries in writing within three calendar days, provided they are received at least eight calendar days prior to the date of opening of proposal/deadline of submission of proposal. The Irrigation Department Govt of Khyber Pakhtunkhwa shall communicate such response to all Parties who have obtained RFP document without identifying the source of inquiry. Should the Irrigation Department Govt of Khyber Pakhtunkhwa deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure under para 10.2.  10.2 Irrigation Department Govt of Khyber Pakhtunkhwa in the capacity of PE may amend the RFP five days before the closing date by issuing an addendum/ corrigendum in writing or through standard electronic means. The addendum shall be sent to all Consultants and will be binding on them. Consultants shall acknowledge receipt of all amendments. To give Consultants reasonable time in which to take an amendment into account in their Proposals the Irrigation Department Khyber Pakhtunkhwa may, if the amendment is substantial, extend the deadline for the submissio
11. Preparation of proposal	11.1 In preparing their Proposal, Consultants are expected to examine in detail the documents comprising the RFP. Material deficiencies (deviation from scope, experience and qualification of Personnel) in providing the information requested may result in rejection of a Proposal.  11.2 The estimate number of professional staff months or the budget required for executing the assignment should be shown in
	the data sheet, but not both. However, proposal shall be based on the professional staff month or budget estimated by the consultant.  11.3 In case of a joint venture, all partners shall be jointly and severally liable and shall indicate who will act as the leader of the joint venture.  11.4 Alternate professional staff shall not be proposed and only
12. Language	one CV may be submitted for each position.  The Proposal as well as all related correspondence exchanged by the Consultants and the Irrigation Department Govt of Khyber Pakhtunkhwa shall be written in English. However it is desirable that the firm's Personnel have a working knowledge of the national and regional languages of Islamic Republic of Pakistan.
13. Technical Proposal Format and	13.1 While preparing the Technical Proposal, consultants must give particular attention to the following:
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#### Content (i) Only those consultants/JV Firms who have valid PEC Registration can participate for the assignment. (ii) For assignments on a staff-time basis, the estimated number of professional staff-months is given in the Data Sheet /Document. The proposal shall, however, be based on the number of professional staff-months after the technical negotiation. It is desirable that the majority of the key professional staff proposed be permanent employees of the firm or have an extended and stable working relationship with it. Proposed professional staff must, at a minimum, have the (iv) experience indicated in the Data Sheet, preferably working under similar geographical condition. Alternative professional staff shall not be proposed, and only (v) one curriculum vitae (CV) shall be submitted for each position. The Technical Proposal shall provide the following information using the attached Standard Forms (Section 3): A brief description of the consultant organization and an outline of last 10 year experience on assignments (Section 3B) of a similar nature. Completion certificates provided by the clients are mandatory. For each assignment, the outline should indicate, inter alia, the profiles of the staff, duration of the assignment, contract amount, and firm's involvement. Any comments or suggestions on the Terms of Reference (ii) and on the data, a list of services, and facilities to be provided by the PE (Section 3C). (iii) The list of the proposed staff team by specialty, the tasks that would be assigned to each staff team member, and their timing (Section 3E). CVs recently signed by the proposed professional staff or (iv) the authorized representative submitting the proposal (Section 3F). Key information should include number of years working for the consultant and degree of responsibility held in various assignments. Knowledge of languages should also be mentioned for each professional staff. Estimates of the total staff input (professional and support staff; staff time) needed to carry out the assignment, supported by bar chart diagrams showing the time proposed for each professional staff team member (Sections 3E and 3G). A detailed description of the proposed methodology, work (vi) plan for performing the assignment, staffing, and monitoring of training, if the Data Sheet pacifies training as a major component of the assignment (Section 3D). (vii) Any additional information requested in the Data Sheet. 13.3. The Technical Proposal shall not include any financial information. 14. Financial The Financial Proposal shall be prepared using the attached Standard Forms (Section 4). It shall list all costs associated with the **Proposals** assignment, including (a) remuneration for staff (in the field and at the Consultants' office), and (b) reimbursable expenses indicated in the Data Sheet/BOQ attached (if applicable). If appropriate, these costs should be broken down by activity. All activities and items described in the Technical Proposal must be priced separately; activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items. 15. Taxes The Consultant will be subject to all admissible taxes 15.1

	including stamp duty and service charges at a rate prevailing on the date of contract agreement unless exempted by relevant tax authority.
16. Submission, Receipt, and Opening of Proposals	16.1 Proposal shall contain no interlineations or overwriting. Submission letters for both Technical and Financial Proposals should respectively be in the format of TECH-1 of Section 3, and FIN-1 of Section 4. All Pages of the original Technical and Financial Proposals will be page numbered & initialed by an authorized representative of the Consultants (Individual Consultant). The authorization shall be in the form of a written power of attorney accompanying the Proposal.  All required copies of the Technical Proposal are to be made from the original. If there are discrepancies between the original and the copies of the Technical Proposal, the original governs.  16.3 The original and all copies of the Technical Proposal shall be placed in a sealed envelope clearly marked "Technical Proposal" Similarly, the original Financial Proposal (if required under the selection method indicated in the Data Sheet) shall be placed in a sealed envelope clearly marked "Financial Proposal" followed by name of the assignment, and with a warning "Do Not Open With The Technical Proposal." If the Financial Proposal is not submitted in a separate sealed envelope duly marked as indicated above, this will constitute grounds for declaring the Proposal non-responsive.  16.4 The Proposals must be sent to the address indicated in the Data Sheet and received by the Irrigation Department Govt of Khyber Pakhtunkhwa no later than the time and the date indicated in the Data Sheet, or any extension to this date. Any proposal received by the Irrigation Department after the deadline for submission shall be returned unopened. In order to avoid any delay arising from the postal or PE's internal dispatch workings, Consultants should ensure that proposals to be sent through couriers
17. Proposal Evaluation	should reach a day before the deadline for submission.  17.1 From the time the Proposals are opened to the time the Contract is awarded, the Consultants should not contact the Irrigation Department Govt of Khyber Pakhtunkhwa on any matter related to its Technical and/or Financial Proposal. Any effort by Consultants to influence the Irrigation Department in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Consultants' Proposal. Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.
18. Evaluation of Technical Proposals	18.1 The evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub-criteria, and point/marks system specified in the Data Sheet. Each responsive Proposal will be given a technical score (St). A Proposal shall be rejected at this stage if it fails to achieve the minimum technical score indicated in the Data Sheet.  Public Opening and Evaluation of Financial Proposals: (LCS, QCBS, and Fixed Budget Selection Methods Only) 18.2 After the technical evaluation is completed, the Irrigation Department Govt of Khyber Pakhtunkhwa shall notify in writing Consultants that have secured the Minimum qualifying marks, the date, time and location, allowing a reasonable time, for opening the Financial Proposals. Consultants' attendance at the opening of Financial Proposals is optional.

19. Evaluation of	Financial proposals of those consultants who failed to secure minimum qualifying marks shall be returned un-opened.  18.3 Minimum qualifying marks will be 70%. The Competent Forum may however decide to lower the qualifying marks to 60%, if required in any particular case when the firm with minimum marks is not available. In case none of the shortlisted firm obtains the desired minimum marks the Committee may decide to readvertise.  19.1 Financial Proposals shall be opened publicly in the presence of
Financial Proposals	the Consultants' representatives who choose to attend. The name of the Consultants and the technical scores/marks of the Consultants shall be read aloud. The Financial Proposal of the Consultants who met the minimum qualifying mark will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall be then opened, and the total prices read aloud and recorded. Copy of the record shall be sent to all Consultants.  19.2 The Evaluation Committee will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount, or between word and figures the formers will prevail. In addition to the above corrections, activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items.  19.3 In case of Quality and Cost Based Selection (QCBS) Method the lowest evaluated Financial Proposal (Fm) will be given the maximum financial score (Sf) of 100 points. The financial scores (Sf) of the other Financial Proposals will be computed as indicated in the Data Sheet. Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the weights (T = the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; T + P = 1) indicated in the Data Sheet: S = St x T% + Sf x P%. The firm achieving the highest combined technical and financial score will be invited for negotiations.
20. Negotiations	20.1 Negotiations will be held at the date and address indicated in the Data Sheet. The invited Consultant will, as a pre-requisite for attendance at the negotiations, confirm availability of all Professional staff. Failure in satisfying such requirements may result in the Irrigation Department Govt of Khyber Pakhtunkhwa proceeding to negotiate with the next-ranked Consultant. Representatives conducting negotiations on behalf of the Consultant must have written authority to negotiate and conclude a Contract.
21. Technical Negotiations	21.1 Technical Negotiations will include a discussion of the Technical Proposal, the proposed technical approach and methodology, work plan, organization and staffing, and any suggestions made by the Consultant to improve the Terms of Reference. The Irrigation Department Govt of Khyber Pakhtunkhwa and the Consultants will finalize the Terms of Reference, staffing schedule, work schedule, logistics, and reporting. These documents will then be incorporated in the Contract as "Description of Services". Minutes of negotiations, which will be signed by the representative of Irrigation Department Govt of Khyber Pakhtunkhwa and the Consultant, will become part of Contract Agreement.
22. Financial	22.1 If applicable, it is the responsibility of the Consultant, before
Negotiations	starting financial negotiations, to contact the local tax authorities to

	determine the tex amount to be neid by the Consultant and an the
	determine the tax amount to be paid by the Consultant under the Contract. The financial negotiations will include a clarification (if any) of the firm's tax liability, and the manner in which it will be reflected in the Contract; and will reflect the agreed technical modifications in the cost of the services. Consultants will provide the Irrigation Department Govt of Khyber Pakhtunkhwa with the information on remuneration rates described in the Appendix attached to Section 4 (i.e. Financial Proposal - Standard Forms of this RFP).
23. Availability of	23.1 Having selected the Consultant on the basis of, among other
Professional staff/ experts	things, an evaluation of proposed Professional staff, the Irrigation Department Govt of Khyber Pakhtunkhwa expects to negotiate a Contract on the basis of the Professional Staff named in the Proposal. Before contract negotiations, the Irrigation Department will require assurances that the Professional Staff will be actually available. Irrigation Department Govt of Khyber Pakhtunkhwa will not consider substitutions during contract negotiations unless both parties agree that undue delay in the selection process makes such substitution unavoidable or for reasons such as death or medical incapacity. If this is not the case and if it is established that professional staff were offered in the proposal without confirming their availability, the Consultant may be disqualified. Any proposed substitute shall have equivalent or better qualifications and experience than the original candidate and be submitted by the Consultant within the period of time—specified in the letter of
	invitation to negotiate.
24. Award of Contract	24.1 After completing negotiations, the Irrigation Department Govt of Khyber Pakhtunkhwa will award the Contract to the selected Consultant within seven days after letter of acceptance or award has been issued. Irrigation Department will publish on the website of the Authority and on its own website, the result of the bidding process, identifying the bid through procuring identifying number, if any and the following information, evaluation report, form of contract and letter of award, bill of quantity or schedule of requirement, as the case may be. However, the procuring entity shall announce the final results of a bid evaluation giving justifications for acceptance or rejection of bids at least ten days prior to the award of a contract and place the same on its and authority website.  24.2 After publishing of award of contract consultant are required to submit a Performance Security at the rate indicated in Data Sheet.  24.3 The Consultant is expected to commence the assignment on the date and at the location specified in the Data Sheet.
25. Confidentiality	Information relating to evaluation of Proposals and recommendations concerning awards shall not be disclosed to the Consultants who submitted the Proposals or to other Persons not officially concerned with the process, until the publication of the award of Contract. The undue use by any Consultant of confidential information related to the process may result in the rejection of its
	Proposal.

# **DATA SHEET**

1.1	Name of the Assignment is Feasibility Study & Detailed Design of Detention Dams in Upper Swat for flood mitigation & regulation of flows in downstream area.
	ADP No. 1877/240201 (2024-25)  The Name of the PE's official (s): The Name of the PE's official (s):  EXECUTIVE ENGINEER Swat Irrigation Division II, Matta
	Phone & Fax: 0946-791221 E-Mail: xenirrimatta @ gmail.com
1.2	The method of selection is: QCBS; 80:20 Technical: Financial Weightage
	The Edition of the Guidelines is: <b>KPPRA</b>
	The Edition of the Guidelines is: Guidelines Notified vide Notification No. KPPRA/M&E/SBDs/1-1/2015; Dated Peshawar the May 03, 2016
1.3	Financial Proposal to be submitted together with Technical Proposal: Yes
1.4	The PE will provide the following inputs and facilities: As per TORs of Contract for Engineering Consultancy Services
1.5	The Proposal submission address is:
	Office of Executive Engineer Swat Irrigation Division II, Matta
	Proposals must be submitted no later than the following date and time:  June 12, 2025; 04:00 PM
1.6	Expected date for commencement of consulting services: After Approval of Combined Evaluation by DCSC; at: District Swat
9.1	Proposals validity that shall not be more than 90 days in case of National Competitive Bidding (NCB) and 120 days in case of International competitive Bidding (ICB):  90 days
	Clarifications may be requested not later than five days before the
	submission date.
10.1	The address for requesting clarifications is: Office of Executive Engineer Swat Irrigation Division II, Matta Swat Phone & Fax: 0946-791221 E-Mail: xenirrimatta@gmal.com
	The Proposal as well as all related correspondence exchanged by the
12	Consultants and the Procuring Entity shall be written in English. However
	it is desirable that the firm's Personnel have a working knowledge of the national and regional languages of Islamic Republic of Pakistan:
	Experience of region & local language taken in the criteria
6.1	Shortlisted Consultants may associate with other shortlisted Consultants: NA
	The estimated number of professional staff-months required
11.2	for the assignment are;
11.2	Key Staff = 38- man months Non-Key Staff = 190-man months
	11011-11Cy Statt — 170-man months

	Available budget is: NA
	[In the case of Selection under a Fixed Budget (FBS), select the following sentence] The Financial Proposal shall not exceed the available budget of: NA
	The format of the Technical Proposal to be submitted is: FTP, or STP
13.1	[check the applicable format]: As given in section-3
13.2(vii)	Training is a specific component of this assignment: No
14.1	[List the applicable Reimbursable expenses in foreign and in local currency. sample list is provided below for guidance: items that are not applicable Should be deleted, others may be added. If the PE wants to define ceilings for unit prices of certain Reimbursable expenses, such ceilings should be indicated in this Section]: NA
	<ul> <li>a Per diem allowance in respect of Personnel of the Consultant for every day in which the Personnel shall be absent from the home office and, as applicable, outside the beneficiary country for purposes of the Services;</li> <li>cost of necessary travel, including transportation of the Personnel by the most appropriate means of transport and the most direct practicable route;</li> <li>cost of office accommodation, investigations and surveys;</li> <li>cost of applicable international or local communications such as the use of telephone and facsimile required for the purpose of Consulting Services;</li> <li>cost, rental and freight of any instruments or equipment required to be provided by the Consultants for the purposes of Consulting Services;</li> <li>cost of printing and dispatching of the reports to be produced for Consulting Services;</li> <li>other allowances where applicable and provisional or fixed sums (if any); and</li> <li>cost of such further items required for purposes of the Services not covered in the foregoing</li> </ul> Amounts Payable by the PE to the Consultant under the contract to be
15.1	Amounts Payable by the PE to the Consultant under the contract to be subject to local taxation, stamp duty and service charges, if applicable: Yes  (Apart from other taxes, consultants should include GST if not
	exempted by the Income Tax Authority at the prevailing rates)
	Consultants to state local cost in the national currency (in case of ICB
6.3	only): NA
16.2	Consultant must submit the original and 01 Copy of the Technical Proposal, and the original of the Financial Proposal (in separate sealed envelopes).
	Criteria, sub-criteria, and point system for the evaluation of Full Technical
13.1	Proposals are below:
13.1	<ul> <li>Specific experience of the Consultants relevant to the assignment:         = 10 Marks         <ul> <li>Number of similar projects undertaken = 6 Marks</li> <li>Total cost of consultancy of these projects = 4 Marks</li></ul></li></ul>
	get full marks and remaining 4 proportional. Minimum financial

cost of the given similar projects shall be 5 Million. Maximum marks for 5 completed projects and remaining proportional Adequacy of the proposed methodology and work plan in responding to the Terms of Reference: (30 Marks) **Technical approach and methodology:** 12 Marks Work plan: 8 Marks **Organization and staffing:** 10 Marks **Total points for criterion (ii):** 30 Marks Key professional staff qualifications and competence for the assignment: (60 Marks) Project Manager/Resident Engineer River Engineering Expert Environmentalist Design Engineer (Structures) Geo Technical Engineer. Total points for criterion (iii): 60 Marks The total of 60 marks is divided amongst experts in an equal proportion. The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following three sub criteria and relevant Percentage weights: **General qualifications:** 15 Marks Minimum Required Qualification: 80% Higher Qualification: 20%  $Total \dots = 100\%$ **Adequacy for the assignment:** 36 Marks Relevant Experience = 27 Marks Maximum experience of 15 years Experience of maximum of 10 projects = 9 Marks General Experience = 9 Marks *Maximum experience of 15 years = 9 Marks* **Experience in region and language:** 9 Marks Work experience in Khyber Pakhtunkhwa = 6 Marks Knowledge of regional language = 3 Marks **Total Points: 60 Marks** Suitability of the transfer of knowledge (training) program: NA Total points for criterion (iv): 0

Participation by nationals among proposed key staff: NA

Total points for criterion (v): 0

Total points for the five criteria: 100 Marks The minimum technical marks St required to Pass is: 70 Marks

(Minimum passing marks in each category are 40%)

**Remuneration Type:** Time Based

The single currency for price conversions is: NA The Formula for determining the financial scores is the following:

FS = 100 x Fm / F, in which FS is the financial score, Fm is the lowest price

19.1	and F the price of the proposal under consideration.
	The weights given to the Technical & Financial Proposals are: $T = \underline{\hspace{1cm}} (80)$ $F = \underline{\hspace{1cm}} (20)$
20.1	Expected date and address for contract negotiations: After the approval of combined evaluation of bids  Pre-proposal/Clarification Meeting date & Venue (Optional): 04-06-
	2025; 11:00 AM at the Office of Executive Engineer Swat Irrigation Division II, Matta Swat.
24.2	<b>Successful consultant is required to submit Performance security in form of bank guarantee</b> = 5% of the contract amount.
5.1	Consultants undertake to sign Integrity Pact for the procurement estimated to exceed Pak Rs.2.5 million.

# The minimum required experience of proposed key staff is:

S.No.	Position	Minimum Academic Qualification	No of years of professional Experience	No of years of Professional Experience in design related activities of similar projects	No of years of Professional Experience in Specific Position
1	Project Manager/Resident Engineer	Master degree in Civil / Water Resources Engineering:	15	10	5
2	River Engineering Expert/intermittent	Master degree in Water Resources Engg:	10	5	5
3	Environmentalist/Interm ittent	Master degree in Environmental Engineering	10	5	5
4	Design Engineer(Structure) intermittent	Master Degree in Hydraulics Engineering/Water Resources Engineering:	10	5	5
5	Geo Technical Engineer/ intermittent	MSc Geo Tech: Engg:/ MSc Geology	10	5	5

## **Section 3**

# **Technical Proposal - Standard Forms**

# **Section 3 Technical Proposal - Standard Forms**

Refer to Reference Paragraph 3.4 of the Data Sheet for format of Technical Proposal to be submitted, and Paragraph 3.4 of Section 2 of the RFP for Standard Forms required and number of Pages recommended.

Form TECH-1. Technical Proposal Submission Form
Form TECH-2. Consultant's Organization and Experience
A - Consultant's Organization
B - Consultant's Experience
Form TECH-3. Comments and Suggestions on the Terms of Reference and on Counterpart Staff and Facilities to be Provided by the PE
A - On the Terms of Reference
B - On Counterpart Staff and Facilities
Form TECH-4. Description of Approach, Methodology and Work Plan for Performing the Assignment
Form TECH-5. Team Composition and Task Assignments
Form TECH-6. Curriculum Vitae (CV) for Proposed Professional Staff
Form TECH-7. Staffing Schedule <sup>1</sup>
Form TECH-8. Work Schedule

### Form TECH-1. Technical Proposal Submission Form

[Location, Date]

To: [Name and address of PE]

Dear Sirs:

We, the undersigned, offer to provide the consulting services for [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal sealed under a separate envelope.

We are submitting our Proposal in association with: [Insert a list with full name and address of each associated Consultant]

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Proposal, i.e., before the date indicated in the Data Sheet, we undertake to negotiate on the basis of the proposed staff.

our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We undertake, if our Proposal is accepted, to initiate the consulting services related to the assignment not later than the date indicated in the Data Sheet.

We understand you are not bound to accept any Proposal you receive.

We remain,	
Yours sincerely,	
Authorized Signature [In full and initials] '.	
Name and Title of Signatory:Name of Firm:	
Address:	

# Form TECH-2. Consultant's Organization and Experience

# A - Consultant's Organization

[Provide here a brief description of the background and organization of your firm/entity and each associate for this assignment.]

# B - Consultant's Experience

# (Projects undertaken & completed during the last ten years)

[Using the format below, provide information on each assignment for which your firm, and each associate for this assignment, was legally contracted either individually or as a corporate entity or as one of the major companies within an association, for carrying out consulting services similar to the ones requested under this assignment.

Assignment name:	Approx. value of the contract Pak RS (in current US\$ or Euro where applicable):
Country:	<b>Duration of assignment (months):</b>
Location within country:	
Name of PE:	Total No of staff-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract in PAK Rs (in current US\$ or Euro where applicable):
Start date (month/year): Completion date (month/year):	No of professional staff-months provided by associated Consultants:
Name of associated Consultants, if any:	Name of senior professional staff of your firm involved and functions Performed (indicate most significant profiles such as Project Director/ Coordinator, Team Leader):
Narrative description of Project:	
Description of actual services provided by your	staff within the assignment:

Firm's Name:

#### Form TECH-3.

Comments and Suggestions on the Terms of Reference and on Counterpart Staff and Facilities to be Provided by the PE

# A - On the Terms of Reference

[Present and justify here any modifications or improvement to the Terms of Reference you are proposing to improve Performance in carrying out the assignment (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your Proposal. ]

# **B** - On Counterpart Staff and Facilities

[Comment here on counterpart staff and facilities to be provided by the PE according to Paragraph Reference 1.4 of the Data Sheet including: administrative support, office space, local transportation, equipment, data, etc.]

# Form TECH-4. Description of Approach, Methodology and Work Plan for Performing the Assignment

(For small or very simple assignments the PE should omit the following text in Italic)

[Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present your Technical Proposal (50 Pages, inclusive of charts and diagrams) divided into the following three chapters:

- Technical Approach and Methodology,
- Work Plan, and
- Organization and Staffing,
- <u>Technical Approach and Methodology</u>. In this chapter you should explain your understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the exacted output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.
- <u>Work Plan.</u> In this chapter you should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the PE), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan should be consistent with the Work Schedule of Form TECH-8.

• <u>Organization and Staffing.</u> In this chapter you should propose the structure and composition of your team. You should list the main disciplines of the assignment, the key expert responsible, and proposed technical and support staff.]

# Form TECH-5. Team Composition and Task Assignments

Professional Staff	•			
27 0 0 0	T-1	Area of	Position	
Name of Staff	Firm	Expertise	Assigned	Task Assigned
_				

# Form TECH-6. Curriculum Vitae (CV) for Proposed Professional Staff

Name of Firm [Insert name of firm proposing the staff]:
Name of Staff [Insert full name]:
Date of Birth: Nationality:
Education [Indicate college/university and other specialized education of staff member giving names of institutions, degrees obtained, and dates of obtainment]:  Membership of Professional Associations:
Other Training [Indicate significant training since degrees under 5 - Education were
obtained]:
• Countries of Work Experience: [List countries where staff has worked in the last te
years]:

Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]: 10. Employment Record | Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, positions held. 1: From [*Year*]: \_\_\_\_\_ To [Year]: Employer: \_\_\_ Positions held: \_\_\_\_\_ 12. Work Undertaken that Best Illustrates Capability to 11. Detailed Tasks Assigned Handle the Tasks Assigned [Among the assignments in which the staff has been List all tasks to be Performed involved, indicate the following information for those under this assignment] assignments that best illustrate staff capability to handle the tasks listed under point 11.] Name of assignment or project: Year: Location: Client: Main project features: Positions held: Activities Performed: 13. Certification: I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged. Date: [Signature of staff member or authorized representative of the staff] Day/Month/Year Full name of authorized representative: FORM TECH-7 STAFFING SCHEDULE<sup>1</sup> 2 Total staff-month Sr. Name Staff input (in the form of a bar chart) input No. of Staff Home I 3 4 5 7 9 2 6 10 11 12 n **Total** Field<sup>3</sup> **Foreign** [Home] 1 [Field\ 2 1

3

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1		[Home]													
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n															
									Subtotal						
	Total														

- For Professional Staff the input should be indicated individually; for Support Staff it should be indicated by category (e.g.: draftsmen, clerical staff, etc.).
- Months are counted from the start of the assignment. For each staff indicate separately staff input for home and field work.
- Field work means work carried out at a place other than the Consultant's home office.
- Full time input Part time input

N°	A	Months 2												
11	Activity													
_		1	4	3	4	3	U	/	0	9	10	11	14	n
1														
2														
3														
4														
5														
n														

• Indicate all main activities of the assignment, including delivery of reports (e.g.: inception, interim, and final reports), and other benchmarks such as PE approvals. For phased assignments indicate activities, delivery of reports, and benchmarks separately for each phase.

## **Section 4**

# **Financial Proposal - Standard Forms**

# Section 4. Financial Proposal - Standard Forms

[Comments in brackets [ ] provide guidance to the shortlisted Consultants for the preparation of their Financial Proposals; they should be deleted from the Financial Proposals to be submitted.]

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal according to the instructions provided under Para. 3.6 of Section 2. Such Forms are to be used whichever is the selection method indicated in Para. 4 of the Letter of Invitation.

Form FIN-1. F	Form FIN-1. Financial Proposal Submission Form							
Form FIN-2. Summary of Costs								
	Breakdown of Costs by Activity1							
Form FIN-4.	Breakdown of Remuneration1							
Form FIN-4.	Breakdown of Remuneration1							
Form FIN-5.	Breakdown of Reimbursable Expenses1							
Form FIN-5.	Breakdown of Reimbursable Expanses							
Appendix. Financial Negotiations - Breakdown of Remuneration Rates								

[Location, Date]

To: [Name and address of PE]

Dear Sirs:

We, the undersigned, offer to provide the consulting services for [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal. Our attached Financial Proposal is for the sum of [Insert amount(s) in words and figures].

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, i.e. before the date indicated in Paragraph Reference 1.12 of the Data Sheet.

Commissions and gratuities Paid or to be paid by us to agents relating to this Proposal and Contract execution, if we are awarded the Contract, are listed below:

We understand you are not bound to accept any Prop	oosal you
receive. We remain,	
Yours sincerely,	
Authorized Signature [In full and initials] '.	
Name and Title of Signatory:	
Name of Firm:	
Address'	
	C4-

	Costs					
Item	Indicate Foreign Currency (if applicable)	Indicate Local Currency				
Total Costs of Financial Proposal <sup>2</sup>						

- Indicate between brackets the name of the foreign currency. Maximum of three currencies; use as many columns as needed, and delete the others.
- Indicate the total costs excluding local taxes to be Paid by the PE in each currency. Such total costs must coincide with the sum of the relevant Subtotals indicated in all Forms FIN-3 provided with the Proposal.

Group of Activities (Phase):	Description:	3		
Cost component	[Indicate Foreign Currency #	Co [Indicate Foreign Currency # 2] <sup>4</sup>	Indicate Foreign Currency # 3] <sup>4</sup>	[Indicate Local Currency]
Remuneration <sup>5</sup>				
Reimbursable Expenses <sup>5</sup>				
Subtotals				

(This Form FIN-4 shall only be used when it is indicated in Reference Paragraph 5.6 of the Data Sheet that remuneration shall be Time Based)

Group of Activities (Phase):									
Name <sup>2</sup>	3 Position	Staff- month Rate <sup>4</sup>	Input <sup>5</sup> (Staff- months)		[Indicate Foreign Currency # 2] <sup>6</sup>	Cumanan	[Indicate Local Currency] <sup>6</sup>		
Foreign Staff									
		[Home]							
		<b>\Field\</b>							

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Local Sta	.11		T	T	Т	Т	ı
		[Home]					
		\Field\					
		1 ·					
		To	otal Costs				
				1	l	l	i

- Positions of Professional Staff shall coincide with the ones indicated in Form TECH-5.
- Indicate separately staff-month rate and currency for home and field work.
- Indicate, separately for home and field work, the total exacted input of staff for carrying out the group of activities or phase indicated in the Form.

• Indicate between brackets the name of the foreign currency. Use the same columns and currencies of Form FIN-2. For each staff indicate the remuneration in the column of the relevant currency, separately for home and field work. Remuneration = Staff-month Rate x Input.

•

(This Form FIN-4 shall only be used when it is indicated in Reference Paragraph 5.6 of the Data Sheet that remuneration shall be Lump-Sum. Information to be provided in this Form shall only be used to establish Payments to the Consultant for possible additional services

requested by the PE)

ed by the PE)		
Name <sup>2</sup>	3 Position	Staff-month Rate <sup>4</sup>
Foreign Staff		-
		\Home 1
		\Home   \Field\
		M
Local Staff		•
		\Home 1
		\Field\

# Form FIN-5. Breakdown of Reimbursable Expenses<sup>1</sup>

(This Form FIN-5 shall only be used when it is indicated in Reference Paragraph 5.6 of the Data Sheet that remuneration shall be Time Based)

Group of Activities (Phase):								
<b>N</b>	Description <sup>2</sup>	Unit	3 Unit Cost	Quantity	[Indicate Foreign Currency #1]	Foreign	[Indicate Foreign Currency #3]	[Indicate Local Currency] <sup>4</sup>
	Per diem						_	
	allowances	Day						
	International							
	flights <sup>5</sup>	Trip						
	Miscellaneous travel							
	expenses	Trip						
	Communication							
	costs between							
	[Insert place] and							
	[Insert place]							
	Drafting, reproduction of reports							
	Equipment,							
	instruments, materials, supplies,							
	etc.							
	Shipment of Personal effects	Trip						
	Use of computers, software	•						
	Laboratory tests.							
	Subcontracts							
	Local							
	transportation costs							
	Office rent, clerical assistance							
	Training of the PE's Personnel <sup>6</sup>							
				Total				
				Costs				

- Form FIN-5 should be filled for each of the Forms FIN-3 provided, if needed.
- Delete items that are not applicable or add other items according to Paragraph Reference 3.6 of the Data Sheet.
- Indicate unit cost and currency.
- Indicate between brackets the name of the foreign currency. Use the same columns and currencies of Form FIN- 2. Indicate the cost of each reimbursable item in the column of the relevant currency. Cost = Unit Cost x Quantity.
- Indicate route of each flight, and if the trip is one- or two-ways.
- Only if the training is a major component of the assignment, defined as such in the TOR.

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## Form FIN-5.

# **Breakdown of Reimbursable Expenses**

(This Form FIN-5 shall only be used when it is indicated in Reference Paragraph 5.6 of the Data Sheet that remuneration shall be Lump Sum. Information to be provided in this Form shall only be used to establish Payments to the Consultant for possible additional services requested by the PE)

N°	Description <sup>1</sup>	Unit	Unit Cost <sup>2</sup>
	Per diem allowances	Day	
	International flights	Trip	
	Miscellaneous travel expenses	Trip	
	Communication costs between		
	[Insertplace] and [Insertplace]		
	Drafting, reproduction of reports		
	Equipment, instruments,		
	materials, supplies, etc.		
	Shipment of Personal effects	Trip	
Use of computers, software			
	Laboratory tests.		
	Subcontracts		
	Local transportation costs		
	office rent, clerical assistance		
	Training of the PE's Personnel <sup>4</sup>		

- Delete items that are not applicable or add other items according to Paragraph Reference 3.6 of the Data Sheet.
- Indicate unit cost and currency.
- Indicate route of each flight, and if the trip is one- or two-ways.
- Only if the training is a major component of the assignment, defined as such in the TOR.

Consultant's Representations Regarding Costs and Charges

- Expressed as Percentage of 1
- Expressed as Percentage of 4

# **Terms of References (TOR)**

# **TERMS OF REFERENCE**

Name of Work: Feasibility Study & Detailed Design of Detention Dams in Upper Swat for flood mitigation & regulation of flows in downstream area. ADP No. 1877/240201 (2024-25)

### • BACK GROUND.

The Swat River basin, particularly the Upper Swat region, is highly susceptible to seasonal flooding due to the region's mountainous terrain, rapid snowmelt from the surrounding peaks, and intense rainfall events. The floods in this area not only pose a serious threat to local communities, agricultural lands, infrastructure, and livelihoods, but also cause significant damage to downstream areas, exacerbating the risk of further economic loss and human displacement.

In recent years, the frequency and intensity of floods in the Upper Swat region have been increasing, largely due to climate change, deforestation, and changes in land use patterns. These floods often lead to the overflow of the Swat River and its tributaries, resulting in widespread destruction. As a result, there is an urgent need to design and implement effective flood mitigation strategies that can minimize the devastating impact of these floods, while ensuring the long-term resilience of the affected communities.

One of the most effective flood management measures is the construction of detention dams, which are designed to capture and store floodwaters during periods of peak runoff, thereby regulating the flow of water downstream and reducing the risk of floods. Detention dams also provide the added benefit of facilitating water resource management, supporting irrigation, and improving overall watershed health.

The proposed project aims to conduct a Feasibility Study and Detailed Design of Detention Dams in the Upper Swat region to address the challenges of flood mitigation and flow regulation. The study will assess the hydrological, environmental, and social factors that influence the feasibility of detention dam construction, while the detailed design will include the engineering and structural specifications for the proposed dams, ensuring their safety, efficiency, and sustainability.

This project is in line with the government's broader strategy to enhance flood resilience, improve water management, and safeguard vulnerable communities in flood-prone areas. The successful implementation of the detention dams will contribute to a more stable and

sustainable environment for local populations, while also offering significant socio-economic benefits through reduced flood damage, improved agricultural productivity, and enhanced water availability.

The Project will be executed in (2) years period. The consultant's role will be "THE ENGINEER OF THE PROJECT" and the consultants work will be monitored and supervised by the respective Irrigation Divisions of Irrigation Department Khyber Pakhtunkhwa.

The project will be financed by the Provincial Government under ADP No 1877(240211)

2024-25. The weightage of **80:20** will be given to the technical and financial proposals.

## OBJECTIVES.

The present Consultancy Services are aimed at carrying out Feasibility Study & Detailed Design of Detention Dams in Upper Swat for flood mitigation & regulation of flows in downstream area. These assignments /tasks would be required from the Consultants as part of their scope of work. More details are given in the Terms of Reference of the Project.

## • SCOPE FOR INFORMATION TECHNOLOGY COMPONENTS.

The irrigation Department of KPK is not equipped with IT-based system facilities and human resources that aid them with effective resource management and improved decision making. To get maximum benefit of the ICT development the department needs futuristic cantered strategy based on the dichotomy of water management and IT-based system, respectively therefore the primary requirement is to developed a reliable and transparent information system and data base /web portal to enhance data processing and analytical capability of various pillars of the department.

Main objective of the data base / web portal water resource information system is to develop interactive, graphical, web based system to enable irrigation managers and planner to take information / decision for timely effective and efficient irrigation water management for irrigation department, the specific objectives of the assignment are :

- Computerized, relational, interlinked and geographical data base system.
- Web-based geographical information system(GIS)
- Management information system (MIS)
- Public website easy to be access by irrigation department official/ officers.

### • TERMS OF REFERENCE/ SCOPE OF WORK

The scope of services shall include but not limited to the following:

• To establish one field office at specified location in consultation with the client in the project area and other at Peshawar initially, which shall be shift-able to other desirable location as per need basis under consultation with the client.

- Collection/evaluation of all available topographic, hydro-metrological, geological, geotechnical and other relevant data necessary for project planning for design of dam, appurtenant structures, command area, reservoir area, irrigation system and access road at appropriate scales.
- Carry out topographic geodetic, geophysical surveys i.e. ERT and SRS (if required, with prior approval of Client) at identified dam sites and appurtenant structures, reservoir and downstream area including access road at appropriate scales/contour intervals for design of detention dams. Also, install survey monuments at suitable/safe locations with establishment and fixing of temporary benchmarks according to standard design and specification of S.O.P at suitable intervals or as directed by the Engineer.
- Remote sensing studies, interpretation of satellite imagery, topographic sheets along with ground verification shall be used to develop the land use/land cover pattern of the study using overlaying mapping techniques viz., Geographic Information system (GIS) generated from satellite data of project area.
- Carry out surface geological mapping and sub-surface geotechnical investigations
  at identified dam sites with prior approval of client. The investigation shall
  include necessary borehole drilling including coring, excavation of test pits and
  collection of surface and sub-surface samples for field and laboratory testing.
- Study of the catchment area for sediment carrying potential, sedimentation in the reservoir and solution for sediment control with emphasis on maximum reservoir life against sediment load.
- Carry out hydrological studies including water availability/accumulation, reservoir
  operation model, flood routing, design flood estimation on 500 and 1000 year
  return periods. The study also includes data collection, analysis, rainfall and run
  off from nearby gauges. Furthermore, the consultant shall also certify that the
  hydrological study is specific for this catchment in terms of equations/empirical
  formulae & factors etc.
- To devise a strategy for minimizing ill effects of river bed & mountain excavation and propose way out and suitable remedies.
- Detail seismic risk evaluation to determine seismic design parameters in designing of project components based on OBE & MCE.
- To identify Landslide zone or area prone to landslide existing in the study area
  and to devise a strategy for the afforestation along the rivers & their tributaries as
  well on the mountains needs for ensuring clean & green environment and
  minimizing land sliding / erosion.
- Identify impediments and factors contributing to the river degradation.

- To check/discourage the environmentally degradable & harmful activities for the preservation of nature & tourism and devise an integrated strategy.
- To study and design the propose detention / Retention Structures and regulation of water from each tributary of the River and its implications.
- Environmental study of the project and prepare IEE/EIA report for obtaining NOC from EPA.
- A map of boundary of the protected areas as per River Act.
- To study general vegetation pattern and floral diversity covering all groups of flora and fauna.
- Collection of baseline data on human settlements and develop comprehensive Environmental Management Plan (EMP) / Resettlement Action Plan (RAP). The RAP shall clearly indicate relocation of road, HT/LT power line, water supply line and any other infrastructure along with its financial implication.
- To collect the availability of water in sub-surface acquirers and devise Ground water management plan
- To study the sanitation and solid waste management plan for domestic waste from settlements in the vicinity of the rivers and to propose the collection and conveyance system for final disposal and to identify landfill sites or other mechanism for solid waste treatment.
- To formulate the strategy and implementation specific point of the project.
- Determine capital cost of entire project components using latest MRS-KP and assess NPW & other economic indicators like B/C ratio, EIRR, FIRR etc. including sensitivity analysis.
- Preparation of proposed design in hard and soft copies. (Ten copies each).
- Preparation of project construction drawings. (Ten sets each).
- Preparation of Draft PC-I and Tender Documents for scrutiny by the Employer.
   (Five copies each).
- Submission of Final PC-I and Final Tender Documents. (Twenty copies each).

#### REPORTING AND DOCUMENTATION / DELIVERABLES FOR

#### FEASBILITY STUDY & DETAIL DESIGN

- Preparation and submission of Review Report (10 copies).
- Preparation and submission of Inception Report (10 copies).
- Preparation and submission of Draft Feasibility report (05 copies).
- Preparation and submission of Final Feasibility report (10 copies).

- Preparation of Draft Design Report in (10 copies), Tender Drawings (10 copies) and Tender Documents (10 copies).
- Preparation of Final Design Report in (10 copies), Tender Drawings (10 copies) and Tender Documents (10 copies).
- Preparation and submission of PC-I of the project. (20 copies each).

Note: All documents/deliverables shall have to be provided in the Soft & Hard form both.

# • PROBABLE MAN MONTHS FOR FEASIBILITY STUDY AND DETAIL DESIGN ACTIVITIES

Probable man months for Feasibility Study and Detailed Design activities are to be proposed by the bidders.

#### QUALIFICATION AND EXPERIENCE OF CONSULTANT'S

#### KEY PERSONNEL.

Consultants will assign adequate qualified key personnel to carry out the implementation of the Project as described in the TOR. The key personnel should possess the qualifications and experience as indicated against each position.

#### • Project Manager/Resident Engineer:

- Should have Master degree in Civil / Water Resources Engineering from a recognized university.
- Should be able to lead the team of consultants and assist the Department in timely completion of the services with quality outputs.
- Overall experience should be 15-years with 10-years in Feasibility study related activities and 5-years as Team Leader for the Projects.

#### River Engineering Expert

• Should have Master degree in Water Resources Engg: from a recognized university.

• Should have at least overall experience of 10-years with 5-years' experience in hydrological and sedimentation assessment etc.

#### Environmentalist

- Should have Master degree in Environmental Engineering from a recognized university.
- Should have at least overall experience of 10-years with 5-years' experience in sewerage treatment plants design related activities.

### • Design Engineer (Structure)

- Should have Master Degree in Hydraulics Engineering/Water Resources Engineering from a recognized university.
- 10 Years' experience in exposure to the design related activities.

### Geotechnical Engineer/Geologist:

- Should have a Master Degree in Geo Technical Engg:/ MSc in Geology from a recognized university.
- Overall experience should be 10-years with 5-years' experience in geological mapping/investigations planning & execution.

# BOQ

	Mitigation & Regulation of flow	vs in do	wnstream are	a. ADP NO.1878 /	240201.
	BOQ				
DESIG	N PHASE				
	Main Office.				
۹.	Direct Cost				
S.No.	Name of Staff	Nos.	Position Staff Months	Monthly Billing Rate (PKR)	Amount (PKR)
⊾ Key	Staff				
1	Project Manager / Residance Engineer	1	18.00		
2	River Engineering Expert / intermittent	1	6.00		
3	Environmentilest / Intermittent	1	4.00		
4	Design Engineer (Structure) Intermittent	1	8.00		
5	Geotechnical Engineer (Intermittent)	1	200		
	Sub Total (A)		38.00		
- Sup	porting Staff				
1	Assistant Resident Engineer	1	18.00		
2	GIS Expert	1	9.00		
3	Mining Engineer (Intermittent)	1	6.00		
4	Hydrologist ( intermittent ).	1	6.00		
5	Economist ( intermittent ).	1	6.00		
6	Junior Engineer	3	18.00		
7	Surveyor (Intermittent)	2	12.00		
8	Lab. Technician (Intermittent)	1	12.00		
9	Quantity Surveyor (Intermittent).	1	12.00		
11	AutoCAD Expert	1	9.00		
12	Revenue Expert / Zilladar ( Intermittent ).	1	5.00		
14	Patwari (Intermittent ).	1	8.00		
15	Computer Operator	1	18.00		
16	Survey Helper	4	12.00		
17	Office Boy / Chowkidar	2	18.00		
	Sub Total (b)		190.00		
				Total (a+b)	
В.	INDIRECT COST				
S.No.	Name of Staff	Nos.	Months	Monthly Billing Rate (PKR)	Amount (PKR)
	ct Manager Offices		40.00		
<u>1</u> 2	Project Manager Office (furnished) rent Field Office (furnished).	1	18.00 9.00		
3	Computers, printers & equipments etc LS		1.00		
4	Miscelleneous Charges of field Office.	1	18.00		
5	Stationery & printing etc.	1	18.00		
6	Lab Charges (Test, investigation, bores e		1.00		
7	Provision of Vehicle including Running	1	1.00		
8	Multi Media with complete Accessaries	1	1.00	 	
			21	ıb Total = Total X=	(A+

# Section 6 CONDITIONS OF CONTRACT

Notified vide Notification No. KPPRA/M&E/SBDs/1-1/2015; Dated Peshawar the May 03, 2016