



**GOVERNMENT OF PAKISTAN
MINISTRY OF WATER RESOURCES
PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES
INVITATION FOR BID(S)**

**Capacity Building of Professionals on Environmental Flow
Assessment Models Application**

Pakistan Council of Research in Water Resources (PCRWR), a body corporate of the Ministry of Water Resources invites sealed bids from reputable firms/Consultants registered with the Sales Tax and Income Tax department (FBR) and relevant Government authorities for the project “**Capacity Building of Professionals on Environmental Flow Assessment Models Application**”. Tender document containing detailed specifications/ToRs can be acquired from the office of the undersigned on payment of fee Rs.1,000/-. The tender document can also be downloaded from PCRWR website (www.pcrwr.gov.pk), subject to deposit of fee with the bid. Dully complete and sealed bids accompanied with earnest money at 2% of the total amount of bid in the form of demand draft/pay order in favor of the **Chairman PCRWR**, Islamabad should reach the office of the Director General (WQ), PCRWR, Islamabad on or before 02:00 pm June 07, 2024 at PCRWR Head Office, Islamabad, which will be opened on the same date and venue at 02:30 pm in the presence of bidders or their representatives who may like to attend. Any query may be made to the undersigned through mail or telephone. Bids without earnest money and conditional tenders shall not be considered. This advertisement is also available on PPRA website at www.ppra.org.pk.

Director General (WQ),
PCRWR Head Office,
Khayaban-e-Johar, H-8/1,
Islamabad.
Ph: 051-9101274,
Email: pcrwr2005@yahoo.com

Tender Fee: Rs. 1,000/-



Tender Document for

**Capacity Building of Water Resources professionals on
Environmental Flow Assessment**

Opening Date: 07-06-2024

Pakistan Council of Research in Water Resources
Ministry of Water Resources Government of
Pakistan
Khayaban-e-Johar, H-8/1, Islamabad
Ph: 051-9101274- Fax: 051-9101278 & 9101280
pcrwr2005@yahoo.com

PART - I

TERMS AND CONDITIONS

1. GENERAL

The bids are initiated from reputed firms registered with Government of Pakistan and having FBR/Income Tax number for “**Capacity Building of Professionals on Environmental Flow Assessment Models Application**” as per following terms and conditions:

- i. The bids are required from the registered firms with earnest money equal to 2% of the total amount of bid(s) in the form of a demand draft/pay order to be issued by a Pakistani scheduled Bank or branch of a Foreign Bank operating in Pakistan in favor of the “Chairman PCRWR”. Tenders without earnest money would be rejected out-rightly. In case of alternate prices, earnest money will be based on the maximum quoted price of the work/deliverables. The Earnest Money will be forfeited if a bidder(s) withdraws his bid(s) during the period of his bid(s) validity. The earnest money of unsuccessful bidder(s) will be returned after evaluation of bids and award of work to a successful bidder.
- ii. The bidder must be registered firm/personnel with SECP and FBR (as per Sale & Income Tax laws) and must be included in active tax payer list at the time of bidding. Evidence of both should be attached with the tender documents. Bids without the evidence of registration and active tax payer status will be rejected out rightly.
- iii. Conditional/incomplete tenders or those having overwriting will not be accepted.
- iv. Quoted price must be valid for at least 90 days from the date of tender opening.
- v. Last date for submission of offers is by June 06, 2024, at 14:00 Hours. The tenders would be opened at 14:30 Hours on the same day in the office PCRWR Head Office, Khyaban e Johar, H-8/1, Islamabad
- vi. The quoted prices must be inclusive of all taxes, services, documentation, responsibilities, cost of travel, modification & improvement in draft etc. The bidder should make sure that the bid is complete in all respects including consumables/non-consumables for the complete execution of the task within a specified duration. Custom duties & taxes where applicable shall be borne by the bidder.

2. SCOPE OF WORK

The National Water Policy of Pakistan emphasizes on Environmental Flows management by stating that E-Flows shall be ensured in the rivers to maintain a sound environment for the conservation of the river ecology, morphology, delta & coastal ecosystem. Following this, setting the E-Flows targets, and integrating these targets into the management of the basin, are necessary for the benefit of downstream water users, maintenance of valuable ecosystem services (e.g., fisheries), and safeguarding

of biodiversity. Environmental Flow Assessment has not been adequately undertaken in Pakistan due to lack of research regarding this particular issue. To bridge this research gap, PCRWR intends to develop capacity of its researchers and professionals to initiate E-Flows assessment of critical sites of river(s). The overall objective of engaging the Technical Consultant (TC) is to develop sustainable internal capacity in the PCRWR to independently carry out E-Flow Assessment including surveys, data collection, data analysis and interpretation. The Consultant firm will be required to manage the training of PCRWR professionals for the E-Flow modelling tasks including field data collection and E-Flow data analysis proficiency and its related deliverables.

The specific objectives of the ToRs are as below:

- i. Building capacity of PCRWR professionals to conduct environmental flow assessments using programs with holistic methodology preferably DRIFT (Downstream Response to Imposed Flow Transformations) or other programs such as; Environmental Flow Calculators; Instream Flow Incremental Methodology (IFIM); PROBFLO E-flow frameworks etc.
- ii. Equipping trainees with the necessary skills and tools to apply environmental flow assessment techniques effectively.
- iii. Familiarizing participants with the functionalities and capabilities of the environmental flow assessment software.
- iv. Building participants' capacity to utilize the software for real world E-flow Assessment Scenarios effectively through data analysis, modeling, hydrological simulation of scenarios, scenario analysis, evaluating scenarios and provide outputs, as well as uncertainty analysis for decision-making.
- v. Providing hands-on experience and practical exercises to reinforce learning.
- vi. Imparting modelling skills by running simulations and case studies.

Evaluation and Monitoring:

The Bidder/Consultant will provide methods for evaluating the effectiveness of the training program, including pre-training and post-training assessments to measure knowledge gained by the trainees. The bidder will also be responsible for participant feedback surveys and trainer evaluations.

Training Materials:

The bidder/Consultant will be responsible for providing all relevant training material that may include but not be restricted to the following:

- Presentation slides.
- User manuals or guides.
- Sample datasets and case studies.
- Mock exercises and hands-on activities.

Software Licenses:

The bidder/Consultant will specify the arrangements for providing participants with access to the Licensed Environmental Flow Assessment Software during and after the training period.

Target Audience/Participants/Trainees:

Relevant professionals of PCRWR from the following educational backgrounds will constitute the target audience:

- Hydrology
- Water Quality
- Water Management
- Biology
- GIS/RS
- Agriculture Engineering
- Geomorphologist
- Socio-economic experts
- Zoologist/Botanist

Topics to be covered by the Consultant:

The bidder/Consultant will provide a detailed outline of the topics to be covered during the training program. The topics and practical exercise may include but not restricted to the following:

- Introduction to environmental flow assessment and its importance.
- Methods and tools for environmental flow assessment.
- Criteria of selection of particular methodology for EFA for a specific river with particular level of resources and time-scale
- Data collection, analysis, and interpretation techniques.
- Case studies and best practices.
- Incorporating environmental flow considerations into water resource management policies and planning.
- Introduction to the environmental flow assessment software.
- Software navigation and user interface.
- Data input and management.
- Model setup and customization.
- Running simulations and analyzing results.
- Interpretation and presentation of results.
- Troubleshooting common issues.
- Advanced features and functionalities (if applicable).

Following the basic introduction of E-Flow, the bidder/consultant will undertake the E-flow assessment case study of the local river segment involving trainees of PCRWR to come up with a realistic environmental flow data and recommendation. The

technical proposal should clearly mention the approach/methodology to cover these tasks.

Venue selection for in-person training:

This can be at PCRWR premises or at consultant's chosen venue equipped with the equipment and facilities needed for hands-on exercises. In case PCRWR premises is chosen as venue, the provision of necessary equipment/tools at PCRWR premises will be the responsibility of the consultant/bidder.

3. BID PRICE AND QUOTING

- i. The bidder is required to quote his bid/charges for entirety of the scope as detailed at clause 2 of Part I of this tender document.
- ii. The prices shall be quoted in Pakistan Rupees. The person signing the bid shall initial all the pages of the bid(s) where entries are made. No bid received after the prescribed deadline date would be entertained and will be rejected without caring about reasons for delayed receipt in PCRWR Head Office, Islamabad due to the negligence of the bidder or the postal/courier services etc.
- iii. Budget earmarked for the capacity development of water professionals from PCRWR is **Rs 3.5 million**.

4. PCRWR'S RIGHTS

PCRWR reserves the right to reduce/increase the scope of work thereby evolving no financial liability whatsoever or any other obligation on the part of PCRWR from the side of bidders. No other sub-office (outfit) of PCRWR is authorized to collect bid(s), only **PCRWR Head Office located at Khayaban-e-Johar H-8/1, Islamabad** is authorized to do so.

The procuring agency may cancel the tender as per PPRA rules. PPRA rules and other prevailing government rules shall be applicable.

5. CONVERSING

Unsolicited advice/clarification and any personal contact at any stage of the evaluation of bids are strictly prohibited and may lead to disqualification.

6. COMPLETION PERIOD

The duration for the capacity development is set at **3 months** from the award of the work. A penalty @ 0.01% of the quoted price per day will be charged after the expiry of the deadline. A realistic justification for forced delay can be accepted by PCRWR.

7. MODE OF PAYMENT

- i. No advance payment will be made to any firm against any work order in any case. Payment shall be made in the form of a cross-cheque as per the following:

| Sr.#. | Deliverable | Payment (%) |
|-------|--|-------------|
| i. | Acceptance of the detailed training report which is to be submitted within 2 weeks of completion of training. | 50 |
| ii. | Acceptance of E-Flow assessment report which is to be submitted within 3 months of completion of the training. | 50 |

8. EVALUATION CRITERIA

The bids would be evaluated based upon their technical soundness with the Terms and Conditions set forth in this document. The lowest quoted bid as a whole meeting technical requirements will be selected. The bidder/consultant must possess the following:

- Proficiency in using the environmental flow assessment software/program.
- A minimum 10 years of experience in conducting environmental flow assessments.
- Evidence of E-flow assessment proficiency as scientific reports and publications published by the consultant.
- Ability to effectively communicate complex technical concepts to diverse audiences.

Specific Evaluation Criteria

The evaluation of consulting firms will be done according to the categories mentioned below:

- A. Technical soundness 90% weightage, the technical proposal should reflect the following;
 - Previous experience of more than 10 years in similar kinds of activities related to conducting environmental flow assessments (30 marks)
 - Methodology for achieving the specific objectives of the ToRs (30 marks)
 - Detail of all relevant training material to be provided as specified in the Scope of work (20 marks)
 - Detail of instructors/trainers and their relevant qualification (20 marks)
- B. Financial aspects 10% weightage
 - Lowest bidder (100 marks)
 - Second lowest bidder (90 marks)
 - Third lowest bidder (80 marks)
 - Further lowest bidders will be ranked with 10 less marks in descending order

PART – II

GENERAL INFORMATION ABOUT THE CONSULTANT/BIDDING FIRM

1- Name of the Firm: _____

2- Main Line or Business: _____

3- Type of Organization: _____

4- Registering Authority: _____

5- Registration Status: _____

6- Phone No: _____

7- Mailing Address: _____

8- Fax No: _____

9- E-mail: _____

10-Contact Person: _____

11-Income tax and sales tax numbers: _____

12-Bidding price (inclusive of all taxes/duties etc.)

a) Rs. In Words

b) Amount in figures

SIGNATURE & SEAL OF CONSULTANT/BIDDING FIRM