

## Request for Quotation (RFQ)

### Feasibility study to evaluate the technical, environmental and social viability of canal restoration in Fort Kochi under the Kochi Smart Canal Project

<b>Title of proposed project</b>	Feasibility study to evaluate the technical, environmental and social viability of canal restoration in Fort Kochi
<b>Location of the project</b>	Pandarachirathodu Canal, Fort Kochi

<b>Summary</b>	<p>In collaboration with Kochi Municipal Corporation, ICLEI- Local Governments for Sustainability, South Asia along with bechtel.org and Swiss Re have been implementing the Kochi Smart Canal Project. The project aims to restore and rehabilitate 2.3km long Pandarachirathodu canal, focusing on improving environmental conditions, enhancing water management, and promoting sustainable urban development. This project aims to demonstrate the climate resilience and cost benefits of nature-based solutions, paving the way for scaling this innovation across other canal restoration projects. This is Phase 2 of the project and requires a feasibility study to support successful planning, financing, and implementation. Phase 1 involved community engagement, technical assessment of multiple canals, and preparation of the pre-feasibility study and high-level cost estimate.</p> <p>The objective of this feasibility study is to build upon the recommendations outlined in the pre-feasibility report, which was developed in Phase 1 of the project (<a href="https://www.swissrefoundation.org/dam/jcr:a42c80f5-b893-4f3d-9148-c640f7cedb25/Final%20Report_Kochi%20Smart%20Canal_Swiss%20Re%20Foundation.pdf">https://www.swissrefoundation.org/dam/jcr:a42c80f5-b893-4f3d-9148-c640f7cedb25/Final%20Report_Kochi%20Smart%20Canal_Swiss%20Re%20Foundation.pdf</a>). The study will evaluate the technical, environmental and social viability of restoring a 2.3 kilometer stretch of the Pandarachirathodu canal. Additionally, it will include stakeholder engagement strategies and Environmental and Social Impact Assessments (ESIA). The consultant will operate independently, leveraging existing pre-feasibility information as a base but will perform additional surveys and collect data as required. The consultant will ensure all deliverables are completed efficiently while adhering to local regulatory requirements and stakeholder expectations.</p>
<b>Scope of Work</b>	<p><b>Feasibility Study</b></p> <p>The consultant will conduct a detailed feasibility study based on pre-feasibility recommendations, which includes but is not limited to:</p> <p><b>Technical Assessment:</b></p> <ul style="list-style-type: none"> <li>Conduct detailed hydrological analysis including modeling studies as required, assess the structural integrity of canal infrastructure, and evaluate restoration techniques and decentralized wastewater management approaches.</li> <li>Analyze construction methods, engineering challenges, and additional infrastructure needs such as fencing along the canal.</li> </ul>

#### **Data Collection:**

- Perform independent surveys/gather data from relevant authorities on bathymetry, topography, hydrology, underground utilities, and other relevant factors.

#### **Phytorid Wastewater Treatment System:**

- Collaborate with licensed vendors to develop detailed engineering designs for phytorid-based wastewater treatment systems.
- Assess feasible locations for these systems and plan sewer line connections from households (toilet block tie-ins) to the treatment plants with safe discharge into the canal.
- Assess baseline BOD of the canal water and evaluate potential to reduce BOD level of the treated discharged water per regulatory norms using phytorid based waste-water treatment plants.

#### **Cost and Schedule Estimation:**

- Prepare detailed cost estimates and project schedules, ensuring data accuracy through independent verification.

#### **Environmental and Social Assessment:**

The consultant shall carry out a comprehensive Environmental and Social Impact Assessment (ESIA) to evaluate the potential impacts of canal restoration and decentralized wastewater treatment intervention. The ESIA will ensure that the project aligns and complies with applicable environmental regulations, improves ecological health, and addresses social concerns. The assessment must include but not be limited to the following:

- Assess current water quality parameters of the Pandarachirathodu canal, with a particular focus on Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), dissolved oxygen (DO) levels, and pathogen loads.
- Establish baseline pollution levels and identify key sources of contamination, including domestic sewage inflow, greywater discharge, and solid waste.
- Evaluate the potential for re-establishing aquatic biodiversity and ecosystem functions following water quality improvements.

#### **Social Impact Assessment:**

- Evaluate potential social impacts, including temporary disruption during construction, impacts on access to water and public health.
- Identify vulnerable communities and propose inclusive strategies for their engagement and benefit-sharing.

	<b>Risk Analysis and Mitigation:</b> <ul style="list-style-type: none"> <li>Identify major risks and propose robust mitigation strategies.</li> </ul>
<b>Deliverables</b>	<p>1. <b>Comprehensive feasibility report</b>, including:</p> <ul style="list-style-type: none"> <li>Engineering designs, cost estimates, and an implementation roadmap with a timeline, identifying key milestones and critical activities.</li> <li>Maps detailing canal restoration and wastewater treatment plant plans.</li> <li>Environmental and Social Impact Assessment (ESIA) reports.</li> <li>Risk management strategies and funding plan recommendations.</li> <li>Engineering calculations and detail engineering drawings supporting cost estimates.</li> </ul> <p><b>Report Format:</b></p> <ul style="list-style-type: none"> <li>Executive summary.</li> <li>Study Area Definition (boundaries and baseline conditions).</li> <li>Technical Assessment.</li> <li>Environmental and Social Impact Assessment.</li> <li>Permitting Requirements (identification of necessary permits and regulatory compliance).</li> <li>Project Implementation Plan (detailed schedule and cost estimates).</li> <li>Risk Assessment and Mitigation Strategies.</li> </ul> <p>2. <b>Stakeholder Engagement and Coordination</b></p> <p>Engage with key stakeholders, including local government agencies, communities, environmental organizations, and potential investors, with the aim of:</p> <ul style="list-style-type: none"> <li>Gathering focused feedback and validating the project's alignment with stakeholder needs.</li> <li>Addressing any major concerns raised during engagement sessions.</li> <li>Providing documentation to ensure stakeholder feedback is incorporated into the final feasibility study.</li> </ul> <p><b>Deliverable:</b></p> <p>Stakeholder engagement summary highlighting key issues and suggested mitigation measures (attached to Feasibility Report as Appendix A).</p>
<b>Exclusions</b>	<p>The following components identified in the pre-feasibility study will not be included in the engineering and cost estimation scope:</p> <ul style="list-style-type: none"> <li>Fecal Sludge Treatment Plant</li> <li>Truck-mounted refuse compactors</li> <li>Community or bio bins</li> </ul>
<b>Location</b>	Pandarachirathodu Canal, Fort Kochi, Kerala, India

<b>Payment schedule</b>	<p>30% on total work value on signing of work order and submission of invoice</p> <p>40% on submission of draft feasibility report and submission of invoice</p> <p>30% on submission of final feasibility report and submission of invoice</p>
<b>Time frame</b>	<p>Publication of tender on ICLEI South Asia Website – 19<sup>th</sup> May 2025</p> <p>Last date of acceptance of quotes: 30<sup>th</sup> May 2025</p> <p>Date of announcement of successful bidder: 2<sup>nd</sup> June 2025</p> <p>Issue of work order to winning bidder: 2<sup>nd</sup> June 2025</p> <p>Technical Assessment- Within 3 months from award of work</p> <p>Data Collection- Within 2 months from award of work</p> <p>Work related to Phytorid Wastewater Treatment System - Within 2.5 months from award of work</p> <p>Cost and Schedule Estimation - Within 3 months from award of work</p> <p>Environmental and Social Assessment- Within 2.5 months from award of work</p> <p>Risk Analysis and Mitigation- Within 2.5 months from award of work</p> <p>Draft Feasibility Report- Within 3.5 months from award of work</p> <p>Final Feasibility Report, after incorporation of all comments- Within 4 months from award of work (1<sup>st</sup> September 2025)</p>
<b>Contact</b>	<p>Dr Monalisa Sen, Associate Director, ICLEI South Asia, C-3, Green Park Extension, New Delhi-110016, India Tel: +91-11-49747200 Fax: +91-11-49747201 Email: <a href="mailto:monalisa.sen@iclei.org">monalisa.sen@iclei.org</a> Website: <a href="http://southasia.iclei.org/">http://southasia.iclei.org/</a></p>

***Mode of implementation (stakeholders involved and type of involvement)***

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The various stakeholders and their roles are described below in brief:

- i. Partners in Project Implementation Consortium (ICLEI South Asia, [bechtel.org](http://bechtel.org)): Coordination with the consultant/ external agency and city government; monitoring of overall activities; offering technical assistance to consultant/ external agency
- ii. Consultant/ External Agency: Carry out all activities listed in sections on description of the assignment and concrete deliverables.

## ***Annexure A: Bidders Eligibility Criteria and List of Required Documents***

### **(A) Bidder Eligibility Criteria**

#### **Technical requirements**

**Organisations registered in India (excluding not-for-profit entities) are welcome to apply.**

#### *Preferred Qualifications:*

- Demonstrated experience conducting feasibility studies for water resource or ecosystem restoration projects in India, with a focus on small-scale or community-oriented initiatives.
- Strong understanding of Indian water management policies, environmental regulations, and urban planning guidelines.
- Proficiency in technical assessments, cost-benefit analysis, and stakeholder engagement, including working with local communities and regulatory authorities.

#### **Financial requirements**

- a) Copy of valid registration certificate, PAN card, GST registration and TIN.
- b) Audited account statements for last two years.
- c) Minimum turnover of 50 lakh (INR) during last two years.

### **(B) Documents to be submitted by participating bidders**

- a) Agency profile
- b) Bidder's experience on assignments of similar nature
- c) Details of at least five similar previous projects implemented by the organization(s) with documentary proof for the same

#### **Financial Quote:**

The quote should provide the following information/ documents:

- a) Financial quote for the tasks listed in the ToR document. The total cost should include all the expenses required to complete all the tasks mentioned in this ToR. Financial bid should be inclusive of all taxes.
- b) Item wise break up for all tasks

Please note:

- a) The bidder shall acquaint with the work and working conditions at site and locality. No claim shall be entertained on this issue after the bid has been submitted.

- b) All or any accessories/consumables/items required for satisfactory commissioning of the study/work shall be deemed to be included in the contract and shall be provided by the bidder without extra charges

*Failure to comply with or provide the above listed items in the Technical and Financial Bids may result in disqualification. The bidder shall produce, original documents for cross verification as and when requested by ICLEI South Asia.*

### **(C) Bid Submission**

The Terms of Reference (ToR) shall be downloaded free of cost from the ICLEI South Asia website

The bid document shall be submitted by bidders through email to the below mentioned email ID on or before 30<sup>th</sup> May 2025:

[monalisa.sen@iclei.org](mailto:monalisa.sen@iclei.org)

The bidder shall also submit 2 sets of hard copies of the bid documents to the address as mentioned below:

**Dr Monalisa Sen**

Associate Director

ICLEI-Local Governments for Sustainability, South Asia

C-3 Green Park Extension

New Delhi- 110016

Phone: +91 9871747467

Email: [monalisa.sen@iclei.org](mailto:monalisa.sen@iclei.org)

The hard copy of bid document shall reach to the above-mentioned address not later than 3 days from the last date of submission of bid document, provided the bid has been submitted through email before the due date of submission

- The Bid shall be submitted in a sealed Envelope and shall be super scribed as:

**“Feasibility study to evaluate the technical, environmental and social viability of canal restoration in Fort Kochi under the Kochi Smart Canal Project”**

- The bid shall be valid for a period of 60 days from the date of submission of bid document
- A bidder shall submit the bid documents that satisfies each and every condition laid down in this notice, failing which, the bid will be liable to be rejected by ICLEI South Asia
- In case the bidder wishes to sub-contract part of his deliverables, the final responsibility of delivery and performance solely lies with the bidder



## ***Annexure B: Proposal/Bid Submission Form***

To  
The Executive Director  
ICLEI-Local Governments for Sustainability, South Asia  
New Delhi – 110016

I/We have read and examined the RFQ (Request for Quotation) documents relating to “**Feasibility study to evaluate the technical, environmental and social viability of canal restoration in Fort Kochi under the Kochi Smart Canal Project** ” including the main tender document and all the annexures.

I/We hereby submit our bid for execution of the work referred to in the aforesaid documents in accordance with the terms and conditions contained or referred to therein and in accordance in all respects with the specifications, designs, drawings and other relevant details at the rates furnished in the bid document and within the period(s) of completion as stipulated in Annexure documents and our proposal.

If I/We fail to keep the bid open as aforesaid or make any modifications in the terms and conditions of the proposal which are not acceptable to ICLEI South Asia or after signing of contract are unable to provide work or services to the satisfaction of ICLEI South Asia as per the terms of the contract and annexure documents, I/We agree that ICLEI South Asia shall without prejudice to any other right, be at liberty to forfeit earnest money absolutely. Should this proposal be accepted, I /We agree to abide by & fulfil all the terms conditions of aforesaid document and the annexure documents.

If after the bid is accepted, I/we fail to commence the execution of the work, I/We agree that ICLEI South Asia shall without prejudice to any other right or remedy is at liberty to forfeit the said earnest money absolutely.

I/We understand that if any false information/document submitted by me/us in the bidding process is detected at a later date, any contract/agreement made between ourselves and ICLEI South Asia will be treated as invalid by ICLEI South Asia and I/We will be solely responsible for the consequences.

I/We agree that the decision of ICLEI South Asia in selection of the agency/consortium will be final and binding on me/us.

I/We agree that I/We have no objection if enquires are made about the information/documents submitted by me/us here in above and /or in the accompanying sheets.

Signature and stamp of applicant.....

Name.....

Organization.....

Date and place.....

### PARTICULARS OF THE AGENCY SUBMITTING THE BID

S.No.	Particulars	Response
1.	Name and address of the agency	
2.	PAN number TIN number GST number Registration number	
3.	Legal status of agency	
4.	Details of contact person with mobile number and email address	

## ***Annexure C: Contract Terms***

### **1 Specific conditions of contract**

#### **1.1 Contractor to study conditions:**

- The bidder shall be deemed to have carefully examined the work and site conditions'. In this regard, he/she will be given necessary information to the best of knowledge of ICLEI South Asia but without any guarantee to it.
- If he/she shall have any doubt as to the meaning of any portions of these general contract terms, or the scope of the work, or any other matter concerning the contract, he/she shall in good time, before submitting his tender, set forth the particulars thereof and submit them to the point of contact, as given in this TOR, by email in order that such doubts may be clarified authoritatively before tendering. Once a tender is submitted, the matter will be decided according to the tender conditions in the absence of such authentic pre clarification.

### **2 General conditions of contract**

- 2.1 The contractor/ consultant shall address all aspects of the proposed outputs and deliverables mentioned in this RFQ
- 2.2 The comments and suggestions provided by the bidder on the RFQ are not binding and shall not affect the financial proposal
- 2.3 It should be noted that the project is being implemented by ICLEI South Asia and hence instructions to bidders will be given by ICLEI South Asia. ICLEI South Asia will be overall in-charge for all the works that would be executed under the present scope of work
- 2.4 The bidder shall also obtain necessary permission, from concerned government departments related to the work/data collection if deemed necessary, in coordination with ICLEI South Asia.

### **3 Tender Evaluation & Bid Assessment**

- 3.1 The bids received will be scrutinized and evaluated by ICLEI South Asia. The decision shall be informed to the winning bidder.

### **4 Award of contract:**

- 4.1 Detailed Work Order will be issued to winning bidder within 1 day of announcing the winning bidder
- 4.2 The winning bidder is to forward the signed and sealed work order to ICLEI South Asia at the earliest or not more than 7 (seven) days of issue of work order
- 4.3 In case the winning bidder fails to indicate his intent to undertake the said work within the stipulated time of 7 (seven) days and observe the formalities as above, the Letter of Intent will be cancelled and the next bidder will be finalised by ICLEI South Asia.

## **5 Compensation for delay**

5.1 Time is the essence of the contract and as such all works shall be completed within the time stipulated in the contract/ work order

5.2 If the bidder, without reasonable cause or valid reasons, commits default in commencing the work within the aforesaid time limit, ICLEI South Asia shall without prejudice to any other right or remedy, be at liberty, by giving 15 days' notice in writing to the contractor to commence the work, to forfeit the balance payment depending on the status of work, and to cancel the Work Order.

## **6 Extension of date of completion**

On occurrences of any events causing delay as stated hereunder, the bidder shall intimate immediately in writing to ICLEI South Asia-

6.1 Force Majeure:

- Natural phenomena, including but not limited to abnormally bad weather, unprecedented flood and draught, earthquakes & epidemics.
- Political upheaval, strikes, lockouts, acts of any Government (domestic/foreign) including but not limited to war, properties, and quarantine embargoes.

## **7 Materials/Appliance at site**

7.1 ICLEI South Asia does not undertake any responsibility for supply of any materials/ equipment/ Appliance/ tool for site analysis to the bidder

7.2 All materials/ equipment/ tools brought to site by the bidder shall be the responsibility of the bidder. ICLEI South Asia shall extend help as and when approached by the bidder to keep any materials/ equipment/ Appliance/ tool, however not liable for any loss, theft or damage due to fire or other cause, the responsibility for which shall lie entirely on the bidder.

## **8 Final Inspection of Work**

8.1 Partners in Project Implementation Consortium shall make final inspection of all work included in the contract/work order, or any portion thereof, or any completed structure forming part of the work of the contract, as soon as practicable after notification by the bidder that the work is completed and ready for acceptance.

8.2 At the time of such inspection Partners in Project Implementation Consortium shall provide the bidder in writing as to the particular concerns to be remedied before final acceptance can be made.