Ministry of Environment
Republic of Maldives

REQUEST FOR PROPOSAL

Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives

"Supporting Vulnerable Communities in Maldives to Manage Climate Change-induced Water Shortages Project"

Issued on: 23rd December 2020

Issued By:
GCF Project Management Unit
Water and Sanitation Department
Ministry of Environment

Contents

1 SCHEDULE OF CRITICAL DATES

ACTIVITY	ACTION DATE
Advertised Date	**23rd December 2020**
Registration Deadline	**Before 1200hrs on 28th December 2020**
Bid Clarification Deadline	**28th December 2020 before 1400hrs**
Deadline to submit proposals	**1000hrs 03rd January 2021**

2 SUBMISSION REQUIREMENTS

Interested parties **shall submit** all the Forms listed under **Sections 6 (TECHNICAL PROPOSAL - STANDARD FORMS)** and **Section 7 (FINANCIAL PROPOSAL - STANDARD FORMS).**

Please CHECK in the BOXES to confirm the submission of the required Forms.

☐ 1. Proposal Form (Form Tech-1)

☐ 2. Consultant's Organisation & Experience (Form Tech -2A&2B)

☐ 3. Approach, Methodology and Work Plan (Form Tech -3)

☐ 4. Team Composition & Task Assignments (Form Tech -4)

☐ 5. Curriculum Vitae (CV) for proposed Professional Staff (Form Tech -5)

☐ 6. Work Schedule (Form Tech -6)

☐ 7. Financial Proposal Submission Form (Form Fin 1)

☐ 8. Financial Proposal Summary Form (Form Fin 2)

Please CHECK in the BOXES to confirm the submission of the required related documents.

☐ 9. Company/ Institution profile

☐ 10. Company/ Institute registration certificate

☐ 11. Organization chart of the Company/ Institute

☐ 12. Copy of the National Identity Card/Passport, Educational Certificates (if needed as per selection criteria in TOR) of Proposed members in Form Tech-5

☐ 13. Stamped/signed project completion letters for ALL the Training Programmes Listed under FORM TECH-2: Proponent's Organization and Experience Form. (Cross refer to Project# in the Form)

☐ 14. If more than one party wishes to show interest as a JV, Joint Venture or Association Agreement between the parties needs to be provided

3 LETTER OF INVITATION

Subjects: Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives (GCF Project)

The Government of Maldives represented by the Ministry of Environment (ME) has received funding from the Green Climate Fund (GCF) for the project "Supporting Vulnerable Communities in Maldives to Manage Climate Change-Induced Water Shortages" and intends to apply part of the proceeds towards three components namely; procuring the services of a Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives.

The main objective of the training is to empower and provide training to local practitioners enabling them to undertake in-depth groundwater baseline assessment. The objective is in line with National Strategic Action Plan's action 5.2a: Conduct National data collection and monitoring of the quality of fresh water resources.

A detailed Terms of Reference (TOR) for the above components and Request for Proposal (RFP) for the consulting services will be attached to the gazette advertisement and also made downloadable on the Ministry's website www.environment.gov.mv. Interested consultation Firms may obtain further information via mail to proc.gcfws@environment.gov.mv.

1. The Bidder shall be registered to submit the proposal by submitting 'Bidders' Registration Form' to the email address proc.gcfws@environment.gov.mv **Before 1200hrs on 28th December 2020.** Only registered bidders will be qualified to submit a bid proposal. The form will be attached to this gazette advertisement.

Proposals shall be delivered in a sealed envelope, bearing the name of the project "Tailor-made Training for Groundwater Resource Assessment for Small Islands – Maldives, bid opening time and date, the address the bid is submitted to (as in the RFP), and the bidders company name, to the Ministry of Environment at the address specified in the RFP. Proposals shall be valid for a period of 90 days from the date of Opening. Electronic submissions are not allowed.

2. Bids should be submitted on **Maldivian time 1000hrs 03rd January 2021** (Only bids submitted at this time will be eligible to proceed to evaluation)**.** The bids will be opened at **Maldivian time 1000hrs 03rd January 2021** . Any late bids will be rejected.

   GCF Project Management Unit
   Water and Sanitation Department
   Ministry of Environment,
   Green Building, Handhuvaree Hingun,

Maafannu, Male', 20392,
Republic of Maldives
Tel. (960)-3018-388/399
Email: proc.gcfws**@environment.gov.mv**

4 INSTRUCTIONS TO CONSULTANTS

4.1 Introduction

a) The Client named in the **Data Sheet** will select a Company/ Institution from those Firms that submit their proposals for this request.

b) Interested parties are invited to submit Technical Proposal and a Financial Proposal for the contract named in the **Data Sheet**. The Proposal will be the basis for contract negotiations and ultimately for a signed Contract with the selected Party.

c) The Client will select an institute/ company/firm (the consultant) from those who submit their proposals, in accordance with the method of selection specified in the **Data Sheet**.

d) As a direct response to this document, interested parties must provide their detailed proposals for the "**Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives".** The standards and other statements on such provision and legislative compliance made by the parties as part of their proposals will form a binding part of the final contract document.

e) The Applicants shall bear all costs associated with the preparation and submission of their proposals and contract negotiation. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Applicants.

f) The Client reserves the right to accept or reject any Proposal and to terminate the tendering process without awarding a contract. The parties should be aware that it is unlikely that the Client will be in a position to go forward with any proposals that fails to meet the statutory and essential requirements.

4.2 Conflict of interest

a) A Party (including its Personnel) that has a business or family relationship with a member of the Client's staff who is directly or indirectly involved in any part of (i) the preparation of the Schedule of requirements, (ii) the selection process, or (iii) supervision of the Contract, may not be awarded a Contract, unless the conflict stemming from this

relationship has been resolved in a manner acceptable to the Government throughout the selection process and the execution of the Contract.

b) The Consultants have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultants or the termination of its Contract.

4.3 Fraud and Corruption

The Client requires that all parties including Consultants and their agents (whether declared or not), personnel, sub-contractors, sub-Consultants, service providers and suppliers, observe the highest standard of ethics during the selection and execution its contracts. In pursuance of this policy, the Client:

a) defines, for the purposes of this provision, the terms set forth below as follows:

i. “corrupt practice” is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

ii. “fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;

iii. “collusive practices” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

iv. “coercive practices” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.

v. “obstructive practice” is

g) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or

- acts intended to materially impede the exercise of the relevant government authorities’ inspection and audit rights.

b) will reject a proposal for award if it determines that the firm recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

c) will cancel the portion of the contract if it determines at any time that representatives of the Client or of a beneficiary were engaged in corrupt, fraudulent, collusive, or coercive practices during the selection process or the execution of that contract, without the Consultants having taken timely and appropriate action satisfactory to the Client to address such practices when they occur; and

d) will take action against any Party or an individual at any time, in accordance with rules and regulations including by publicly declaring such Parties or individual ineligible, either indefinitely or for a stated period of time.

4.4 Proposal Validity

The Data Sheet indicates how long the Proposals must remain valid after the submission date. The Client will make its best effort to complete negotiations within this period. Should the need arise; however, the Client may request to extend the validity period of proposals. The Parties 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, The Applicants could submit new staff in replacement, who would be considered in the final evaluation for contract award. Applicants who do not agree have the right to refuse to extend the validity of their Proposals.

4.5 Language of Proposal

The proposal documents must be in written English.

4.6 Preparation of Proposals

a) The Proposal (see para. 1.2), as well as all related correspondence exchanged by the Consultants and the Client, shall be written in the language (s) specified in the RFP.

b) In preparing their Proposal, Applicants are expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the information requested may result in rejection of the Proposal.

c) Alternative professional staff shall not be proposed, and only one curriculum vitae (CV) may be submitted for each position.

4.7 Technical Proposal Format and Content

The Technical Proposal shall provide the information indicated in the following paras from (a) to (f) using the attached Standard Forms (Section 6. Technical Proposal).

a) A brief description of the Consultants' organization and an outline of recent experience of the firm, on assignments of a similar nature are required in FORM TECH 2A & 2B of Section 6. For each assignment, the outline should indicate the names of Sub-Consultants/ Professional staff who participated, duration of the assignment, contract amount, and Consultant's involvement. Information should be provided only for those assignments for which the Consultants was legally contracted by the client as a corporation or as one of the major consultancy firm. Assignments completed by individual Professional staff working privately or through other organisations cannot be claimed as the experience of the Firm, or that of the Consultant's associates, but can be claimed by the Professional staff themselves in their CVs. Consultants should be prepared to substantiate the claimed experience if so requested by the Client.

b) A description of the approach, methodology and work plan for performing the assignment covering the following subjects: technical approach and methodology, equipment that will be used, work plan, and organization and staffing schedule. Guidance on the content of this section of the Technical Proposals is provided under FORM TECH 3 Section 6. The work plan should be consistent with the Work Schedule (FORM TECH 6 of Section 6) which will show in the form of a bar chart depicting the timing proposed for each activity.

c) The list of the proposed professional staff team by area of expertise, the position that would be assigned to each staff team member, and their tasks (FORM TECH 4 of Section 6).

d) CV's of the professional staff signed by the staff themselves or by the authorized representative of the professional staff (FORM TECH-5 of Section 6).

e) The Technical Proposal shall not include any financial information. A Technical Proposal containing financial information may be declared non-responsive.

4.8 Financial Proposal Format and Content

a) Financial Proposal submitted shall include the total cost specified in the TOR (FORM FIN 1) and the total amount of financial proposal shall be inclusive of Goods and Service Tax (GST).

b) Financial Proposal submitted shall include the breakdown of cost for each of the deliverables (FORM FIN 2)

c) Failure to submit the FORM FIN 1&2 will lead to the disqualification of the proposal submitted by the Proponent.

4.9 Clarification and Amendment of RFP Documents

a) During the RFP process, questions or clarifications regarding this RFP document must be requested in writing to the person and address stated in the **Data Sheet**. Requests for clarifications need to be submitted latest by the date and time provided in the **Data Sheet**.

b) Any additional documentation issued by the Client during the tender process shall be deemed to form part of this RFP and shall supersede any part of the RFP where indicated. The Client may also exercise the option to extend the tendering period and/or postpone the proposal submission date in the event that subsequent documentation is issued.

4.10 Communications

Except as provided in the preceding section relating to questions about this RFP, no parties shall contact any officers, employees, or team members of Client with respect to this RFP. Any oral communication with a Client employee concerning this RFP is not binding on the Client and shall in no way alter any specifications, term or condition of this RFP or any contract documents.

4.11 Submission, Receipt, and Opening of Proposals

a) The original proposal (Technical Proposal and Financial Proposal) shall contain no interlineations or overwriting, except as necessary to correct errors made by the Applicants themselves. The person who signed the proposal must initial such corrections.

b) An authorized representative of the Applicant shall initial all pages of the original Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney accompanying the Proposal or in any other form demonstrating that the representative has been duly authorized to sign on behalf of the Firm.

c) Applicants shall submit a “Compliance Statement” stating that the offer is made in accordance with the Request for Proposal. Applicants who offer additional or alternative conditions *if applicable* shall clearly state those in their proposals.

d) The technical proposal and financial proposal must be submitted in a single sealed envelope with one (1) printed copy to the address indicated in the Data Sheet. The proposal shall be placed in a sealed envelope which shall bear the submission address, reference number and be clearly marked “Do Not Open, except in the Presence of the Official Appointed”. The Client shall not be responsible for misplacement, losing or premature opening if the outer envelope is not sealed and/or marked as stipulated. This circumstance may be case for Proposal rejection.

e) The Proposals must be sent to the address indicated in the **Data Sheet** and received by the Client no later than the date specified in the **Data Sheet**, or any extension to this date.

Any proposal received by the Client after the deadline for submission shall be returned unopened.

4.12 Evaluation of proposals

a) From the time the Proposals are opened to the time the Contract is awarded, the Applicants should not contact the Client on any matter related to its Technical and/or Financial Proposal. Any effort by Applicants to influence the Client in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Consultants' Proposal.

b) The Proposals shall be opened publicly in the presence of the Consultants' representatives who choose to attend. These Financial Proposals shall be then referred, and the total prices read aloud and recorded. Copy of the record shall be sent to all submitted firms.

c) The evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the Technical Requirements, applying the evaluation criteria, sub-criteria, and point 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 does not respond to important aspects of the RFP, and particularly the Technical Requirements or if it fails to achieve the minimum technical score indicated in the evaluation criteria specified in the **Data Sheet**.

d) To be eligible for this assignment the consultants must clearly show their capacity to accomplish the work in the required time frame with the proposed project team by showing the adequacy of staff selected and their current workload.

e) After the technical evaluation is completed, the bidders who are not qualified for technical evaluation will be disqualified for the financial evaluation.

f) The Applicant is **REQUIRED** to submit Financial Proposal for the bid, using for this purpose the Financial Proposal Submission FORM FIN 1&2.

g) 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.

h) The **highest** 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 Evaluation Criteria: S = St x T% + Sf x P%. The Party achieving the highest combined technical and financial score for the Proposal will be invited for negotiations.

4.13 Damages

a) The Client may claim damages in respect of any direct loss that can be reasonably attributed to delays, defects or other breaches of contract on the part of the Consultant, unless the Consultant demonstrates that the Consultant did not cause the breach of contract or the reason for the breach of contract.

b) Liquidated damages shall be the only damages due from the Consultant for such default, other than in the event of termination by Employer under the contract prior to completion of the works. These damages shall not relieve the consultant from their obligation to complete the works, or from any other duties, obligations or responsibilities which they may have under the Contract.

c) If the agreed delivery date or other time limit in the delivery schedule in respect of which the parties have stipulated is not complied with, and this is not caused by force majeure or circumstances related to the Client, there is a delay on the part of the Consultant that triggers liquidated damages.

d) The liquidated damages shall accumulate automatically. The liquidated damages amount and the maximum delay damages will be calculated on the basis specified in the **Data Sheet**.

e) The Client shall not have the right to terminate the Agreement for breach for as long as the liquidated damages continue to accumulate. However, this time restriction shall not apply in the case of wilful misconduct or gross negligence on the part of the Consultant or anyone for whom it is responsible.

f) If only parts of the agreed deliverables are delayed, the Consultant may request a reduction in the liquidated damages proportional to the ability of the Client to utilise the part of the deliverables that has been delivered.

4.13.1 Limitation of Damages

i. No damages may be claimed in respect of indirect loss. Loss of data is classified as indirect loss, unless such loss is caused by data handling that is the responsibility of the Consultant under the Agreement.

ii. Overall damages over the term of the Agreement are limited to an amount corresponding to the contract price, excluding relevant Taxes, or an agreed estimate for the Assignment.

iii. The said limitations shall not apply in the case of gross negligence or wilful misconduct on the part of the Consultant or anyone for whom it is responsible.

4.14 Retention

a) The payment of any interim certificate according to contract will amount to deduction for retention, calculated by applying the percentage of retention stated in the **Data Sheet** to the total of the above amounts, until the amount so retained by the Employer reaches the limit specified in the **Data Sheet.**

b) The repayment of retention shall be on the basis specified in the **Data Sheet.**

5 DATA SHEET

5.1.a	**Name of the Client:** **Ministry of Environment** Green Building, Handhuvaree hingun, Maafannu, Male', 20392, Republic of Maldives
5.1.b	***Financial Proposal to be submitted together with Technical Proposal in a single envelope on the same day and time specified.*** *Please write name of the Consultancy assignment and other required details as per clause 4.11 on the envelopes.* Name of the assignment is: "***Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives".***
5.2 Validity	Proposals must remain valid up to 90 days after the submission date.
5.3	Interested consultants may obtain further information/clarifications no later than **28th December 2020, 1400hrs** before the submission date.

Clarifications of RFP Documents	GCF Project Management Unit Water and Sanitation Department Ministry of Environment, Green Building, Handhuvaree Hingun, Maafannu, Male', 20392, Republic of Maldives. Tel. (960)-3018-394/395 Email: proc.gcfws@environment.gov.mv
5.5 Submission, Receipt, and Opening of Proposals	The Proposal submission address is: GCF Project Management Unit Water and Sanitation Department Ministry of Environment, Green Building, Handhuvaree Hingun, Maafannu, Male', 20392, Republic of Maldives. The proposals are expected to be submitted to the address on local time **1000hrs 03rd January 2021** . Only bids submitted at this time will be eligible to proceed to evaluation and **Late bids will be rejected.** **Interested parties should register their interest by email no later than Before 1200hrs on 28th December Only those parties who register their interest will be allowed to participate in the bid.** **Proposal of additional or alternative conditions to RFP is not allowable**
5.6 Evaluation of Proposals	**Preliminary Evaluation:** Firms who doesn't fulfil the following criteria will be disqualified from the Technical evaluation: a) Firms shall not propose Project Team Leader with more than 2 ongoing assignments with duration more than 1 year with the Ministry of Environment. b) Firm must be a registered higher/technical educational institution or affiliated with such an institute for at least 10 years.

Criteria, sub-criteria, and point system for the evaluation of Full Technical Proposals are:

	Points
(A) Company Profile:	**[30]**
1. No. of similar training Programmes (10 marks per course)	[20]
2. Organisational structure (Full marks given if the organisation structure is shown)	[10]
Total A = [ ]	
(B) Project Team	**[80]**
1. Lead Hydrologist/ Groundwater Specialist	[30]
2. Assistant Lecturer 1	[20]
3. Assistant Lecturer 2	[20]
4. Local Liaison Officer	[10]
Total B = [ ]	

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:

1. Education and qualifications	[*6*%]
2. General Experience	[*10*%]
3. Specific Experience	[4%]

(C) Approach, Methodology &Work plan	**[40]**
a) Technical approach and methodology	[*30*]
b) Work plan	[*10*]
Total C = [ ]	

The marks of this section will be based on conformity of the FORM 3&6 to the Scope of Works and Deliverables as in the TOR.

Technical Score (St) = A/30*[W1] + B/80*[W2] + C/40*[W3]

Weights Distribution

	W1 Company Profile **[20]** W2 Project Team **[60]** W3 Approach & Methodology **[20]** The minimum technical score (St) required to pass is: **65** Points The formula for determining the financial scores is the following: Sf = 100 x Fm / F, in where Sf is the financial score, Fm is the lowest price and F the price of the proposal under consideration. The weights given to the Technical and Financial Proposals are: T = [0.7], and P = [0.3]
5.6 Damages	Liquidated Damages will not be deducted as per clause 10.71 of the Public Finance Act published by the Ministry of Finance.
5.7 Retention	A retention will not be deducted.

6 Technical Proposal- Standard forms

FORM TECH-1: Proposal Submission Form

[*Location, Date*]

To: [*Name and address of Client*]

Dear Madam/Sir:

We, the undersigned, offer to provide the consultancy service for "**Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives "** in accordance with your Request for Proposal dated [xxx] and our Proposal. We are hereby submitting our Proposal, which includes all required documents as per Request for Proposal.

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, 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 services and fulfill the terms and conditions related this contract.

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: _

5.2 FORM TECH-2: Consultant's Organization and Experience

2A – Proponent's Organization

[*Provide here a brief (two pages) description of the background and organization of your firm.*]

2B – Experience of the firm (General Experience)

*[Using the format below, provide information on each contract/assignment for which your Organisation, individually as a corporate entity or as one of the major companies within an association, for carrying out **similar Training programmes as needed in TOR and Selection criteria.**.] Each project should be accompanied by reference letters from the client to be counted as a valid experience.*

Project Reference Number:	
Contract/Activity Name:	Value of the contract (in MVR):
Country: Location within country:	Duration of assignment/activity (months):
Name of Client:	Total NO of staff-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract (in MVR):
Start date (month/year): Completion date (month/year):	NO of professional staff-months and Value of the services provided by associated Proponents:

Name of associated Parties, if any:	Name of senior professional staff of your firm involved and functions performed:
Narrative description of Activities/Project:	
Description of actual services provided by your staff within the Activities:	
Description of institutions dealt with and nature and frequency of interaction:	

Firm's Name: _____

2B – Experience of the firm (Specific Experience)

*[Using the format below, provide information on each contract/assignment which the Lead Consultant and/or Associate Consultant has undertaken, which can be considered as "Specific Experience" as per the evaluation criteria stated in the **Data Sheet**. Use up to 05 Projects. Each project should be accompanied by reference letters from the client]*

Project #_____

Contract/Project Title:	Contract value of the contract (in MVR):
Country: Location within country:	Duration of assignment/activity (months):
Name of Client:	Total NO. of calendar-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract (in MVR):
Start date (month/year): Completion date (month/year):	NO. of calendar-months provided by associated Proponents:
Name of associated Parties, if any:	Name of professional staff of your firm involved and functions performed:
Narrative description of Activities/Project:	
Description of actual services provided by your staff within the Activities:	

Organisation/entity's Name: _____

NOTE: Project Completion Letters (signed by the Client) must be submitted for each of the above individual projects

5.3 FORM TECH-3: Methodology and Work plan

Technical approach, methodology and work plan are key components of this Proposal. You are suggested to submit your Proposal with the following areas clearly described:

a) Methodology for each activity,
b) Work Plan
c) Organization and Staffing,

a) <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 expected 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.

b) <u>Work Plan.</u> In this chapter you should highlight the main activities and sub-activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Client), 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.

c) <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.

5.4 FORM TECH-4: Team Composition and Task Assignment

5.4.1 Professional Staff

Position assigned	Organisation	Area of Expertise	Name of Staff	Task Assigned
Lead Hydrologist/ Groundwater Specialist Team Leader)				
Assistant Lecturer				
Assistant Lecturer				
Local Liaison Officer				

Note: Evaluation will be conducted to the teams proposed and indicated in the table above

5.5 FORM TECH-5: LIST OF TRAINING PROGRAMMES COMPLETED

Name of the Training Programme	Name of the Client	Cost of the Training (USD)	Assignment Signed Date	Assignment Completed Date

Proof and confirmation of the listed Training Programmes need to be submitted.

5.6 FORM TECH-5: Curriculum Vitae (CV) for proposed team

1. **Proposed Position** [*only one candidate shall be nominated for each position*]: _____
2. **Name of Firm** [*Insert name of firm proposing the staff*]: _____

   _____
3. **Name of Staff** [*Insert full name*]: _____
4. **Date of Birth**: _____ **Nationality**: _____
5. **Education** [*Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment*]: _____

   _____
6. **Membership of Professional Associations**: _____

   _____
7. **Other Training** [*Indicate significant trainings since degrees under 5 - Education were obtained*]:

   _____
8. **Countries of Work Experience**: [*List countries where staff has worked in the last ten years*]:_

   _____
9. **Languages** [*For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing*]: _____

   _____
10. **Experience/ Employment Record** (pertaining to general experience clause in the evaluation criteria set in the TOR, check separately for all staff) [*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.*]:

From [Month/*Year*]: To [Month/*Year*]: ___

Employer: _____

Positions held: _____

Summary of Training/ Consultation Undertaken/Role: ___

- Name of training/ Consultations
- Scope of Training/ Consultation
- Role/ Position undertaken
- Period of Consultation/ Training

11. Current commitments in Ongoing Projects with the Ministry of Environment

Name of the Contract/Project: _____

From [*Month/Year*]: _____ To [*Month/Year*]: _____

Positions held: _____

Summary of Role: _____

A copy of the National Identity Card needs to be attached for each individual.

Note: Add as separate section if 2 different areas of specific experience is required in TOR

5.7 FORM TECH-6: Work Schedule

Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives (GCF Project)

Activity/Deliverable *Online Portion*	Deadline	Jan 21		Feb 21		Mar 21		Apr 21		May 21		Jun 21		Jul 21		Aug 21		Sept 21
Course 1: Advance course on Resistivity Method and its Applications in Groundwater Management	3 month from contract signature upon client review and approval of deliverable																	
Course 2: Advance course on Ground Penetrating Radar (GPR) Method and its Applications in Subsurface investigations	4 months from contract signature upon client review and approval of deliverable																	
Course 3: Well hydraulic, Aquifer assessment methods and pumping test	5 months from contract signature upon client review and approval of deliverable																	
Course 4: Well construction, groundwater monitoring, well problems and failures, maintenance, development, and protection of wells	6 months from contract signature upon client review and approval of deliverable																	
Practical																		

Course 1: Advance course on Resistivity Method and its Applications in Groundwater Management	Any time between 3 to 18 months of contract signature after successfully conducting the practical as per clients requirements																
Course 2: Advance course on Ground Penetrating Radar (GPR) Method and its Applications in Subsurface investigations																	
Course 3: Well hydraulic, Aquifer assessment methods and pumping test																	
Course 4: Well construction, groundwater monitoring, well problems and failures, maintenance, development, and protection of wells																	

The Firm shall update this table with the Sub-activities that are proposed for each Deliverable. Note that the Work Schedule must adhere to the period of key Deliverable

FINANCIAL PROPOSAL - STANDARD FORMS

FORM FIN-1: Financial Proposal Submission Form

[*Location, Date*]

To: [*Name and address of Client*]

Dear Madam/ Sir:

We, the undersigned, offer to provide Training service for " **Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives (GCF Project)"** in accordance with your Request for Proposal dated [*xxx*] and our Technical Proposal. Our attached Financial Proposal is for the sum of [*Insert amount(s) in words and figures*[1]]. This amount is inclusive of the all taxes.

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.

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: _____

1 Amounts must coincide with the ones indicated under financial proposal in Form Fin-2

FORM FIN-2: Financial Proposal Summary

Summary of Costs: Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives (GCF Project)

Costs		Amount (in MVR)
Online potion		
Course 1: Advance course on Resistivity Method and its Applications in Groundwater Management	25% of online potion after client review and approval	
Course 2: Advance course on Ground Penetrating Radar (GPR) Method and its Applications in Subsurface investigations	25% of online potion after client review and approval	
Course 3: Well hydraulic, Aquifer assessment methods and pumping test	25% of online potion after client review and approval	
Course 4: Well construction, groundwater monitoring, well problems and failures, maintenance, development, and protection of wells	25% of online potion after client review and approval	
Practicals		
Course 1: Advance course on Resistivity Method and its Applications in Groundwater Management	25% of practical after successfully completing the practical as per clients requirements	
Course 2: Advance course on Ground Penetrating Radar (GPR) Method and its Applications in Subsurface investigations	25% of practical after successfully completing the practical as per clients requirements	
Course 3: Well hydraulic, Aquifer assessment methods and pumping test	25% of practical after successfully completing	

Course 4: Well construction, groundwater monitoring, well problems and failures, maintenance, development, and protection of wells	the practical as per clients requirements 25% of practical after successfully completing the practical as per clients requirements	_____
Subtotal		
Online portion		_____
Practical		_____
Taxes Applicable (please detail separately all taxes applicable)		_____ _____
Total Amount of Financial Proposal		

Note:

- *The consultancy firm/institution is to submit copy of the GST registration certificate along with the financial proposal.*
- *All Consultancy firm/institution shall express the price of their services in Maldivian currency*
- *Bidder is liable to clarify (and present necessary documentary evidence) and include all relevant tax for the assignment.*
- *If the firm is subject to GST/BPT as per MIRA Regulations and Guidelines the GST/BPT Registration Certificate and GST quote in the financial proposal need to be included*

TERMS OF REFERENCE

Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives

1. Background and Context

The Republic of Maldives is a low lying, atoll based, archipelagic nation in the central Indian Ocean. It comprises 1,190 islands grouped into 26 atolls that together occupy a land area of 298 km2 and form a chain over 820 km in length, spread over an area of around 90,000 sq km. With a total population of 341,256, it is the smallest Asian country in terms of area and population. The country has an average elevation of 1.5 meters above sea- level. The two most important sectors of the economy are tourism and fisheries which contribute nearly 80% of the country's Gross Domestic Product (GDP). Maldives is among the most susceptible and vulnerable to climate change.

1.1 Project description

The Government of Maldives has received funding from the Green Climate Fund (GCF) for the project "Supporting Vulnerable Communities in Maldives to Manage Climate Change-Induced Water Shortages".

The outer islands of the Maldives experiences drinking water shortages during the dry season. These shortages have had significant adverse human, environmental and social impacts on the outer island. The key problems pertaining to freshwater security relate to the increasingly variable rainfall patterns induced by climate change and sea-level rise induced salinity of groundwater. The Government faces constraints in responding to the challenge at hand without assistance, especially in the context of anticipated impacts of climate change.

In response to this climate challenge, the 5-year GCF funded project has the objective to deliver safe and secure freshwater to 105,000 people in the islands of Maldives in the face of climate change risks. This will be achieved by delivering the following results:

a. Scaling up integrated water supply system to provide safe water to vulnerable households (at least 32,000 people, including 15,000 women);
b. Decentralized and cost-effective dry season water supply system introduced benefiting 73,000 people across 7 Northern Atolls;
c. Groundwater quality improved to secure freshwater reserves for long term resilience on 49 islands;

The Government intends to apply part of the proceeds towards procuring the services of Consultancy Firm/institution for the works of "Tailor-made Training for Groundwater Resource Assessment for Small Islands - Maldives"

1.2 Groundwater in Maldives

The freshwater lens underlying each island has historically been the most important water source for islands. The thickness of the freshwater lens, which typically floats atop the denser sea water, is controlled by a number of factors including island width, rainfall rates and associated infiltration and recharge. Depending on these factors, lens thickness range from less than a few meters to 25-30 meters. Knowledge regarding quantity of groundwater of the Maldives during average annual climatic variations is lacking, but recent modelling results indicate that many of the islands are expected to have a measurable freshwater lens although significant decreases (at least 50%) in thickness can occur during the dry season months. For small islands (less than 300 meters in width) complete depletion of the lens is likely to occur during the dry season or after successive years of low annual rainfall. The freshwater lens is thicker for islands in the South of the country due to higher rainfall levels than the Central and Northern regions, with the North being particularly dry. Furthermore, excessive groundwater extraction in relation to recharge has led to salt water intrusion and up-coning of saline water together with the preferential flow paths and reduction of the efficiency of natural recharge processes. Thus, the concern is that during droughts, over-pumping can alter the size of the aquifer and limit recovery to its former size. Observation and anecdotal evidence points to ponding due to soil compaction and reduced infiltration capacity in areas of roads and built up areas, leading to evaporation losses.

When considering factors that affect the quality of groundwater in the outer islands, population growth will mean that sewage discharges will increase by approximately the same rate, and the rate of urbanization (4.2%) will result in higher density communities with knock-on impacts on pollution from waste disposal, particularly given the fragility of the freshwater lenses. Furthermore, higher urbanization will preclude the rainwater to permeate into the underground lenses unless a deliberative protection of catchment areas takes place.

Groundwater is highly vulnerable to the impacts of climate change. Rising global temperatures may result in greater heat stress for people and ecosystems, thus, increasing water withdrawal In addition, sea-level rise, increased wave energy at the coast and increased frequency of tidal surges will increase island-overtopping events and coastal erosion which will increase saline intrusion into freshwater lenses. Two drought issues are especially risky for Maldives: i) extended dry seasons during which harvested rainwater runs out; and ii) reduced overall recharge during the wet season, affecting the availability of groundwater. Thus, the patterns of rainfall are as important as average annual changes.

Due of the hydrogeology of the island, the interrelated issues of groundwater quality and quantity can, among others, be majorly addressed by management approaches that encompass the entire recharge / catchment area. One of the project results is ensure groundwater quality is

improved to secure freshwater reserves for long term resilience on the islands. In line with this project objective, it is planned to conduct a tailor made training for groundwater resource assessment for small islands. The Ministry of Environment and Energy of Maldives plans to hire a consulting firm to undertake this task.

2. Objectives of the Consultancy

The objective of the training is to empower and provide training to local practioners enabling them to undertake in-depth groundwater baseline assessment. The objective is in line with National Strategic Action Plan's action 5.2a: Conduct national data collection and monitoring of the quality of fresh water resources.

3. Scope of Work

Due to the COIVD-19 related travel and meeting restrictions, the scope of works is formulated as follows:

1. All the theory sessions will be done in the form of videos supplemented by documents hosted online (see point 2)

2. The client already possesses a learning management system (LMS) implemented using Moodle LMS software. The contractor should implement most of the training (exception: see 'practicals' below). The material provided should be copyright-cleared. Contractor should give rights to the client to use the material after the training is completed.

3. Each course below includes a 'theory' section followed by 'online practical and 'practical' sections. Theory and online practicals sections should be implemented 100% as online training. The trainers should conduct online training sessions, but all the material should be available (e.g. video recordings) so that someone who does not join the training can potentially self-study the material at a later time. The material should be self-explanatory and suitable for self-study. Hereafter we collectively call the 'theory' section plus the 'online practical section as 'online'.

4. For each course, the contractor should create a multiple-choice question bank of at least 100 questions. Further several descriptive/calculation questions with model

answers should be provided.

5. 'Practicals': Each course, field exercises should be planned towards the end. Even these activities should be covered in videos in 'online practicals'. Due to the COVID-19 related restrictions, courses should be designed so that the 'practical' are optional so that under unavoidable circumstances students can learn the techniques by following online material. (The client understands that this is a less optimal way of training). The 'practicals' involved in the courses should be formulated as a separate deliverable in the proposal and separately costed. The client reserves the right to cancel the practical upon their judgement of the travel/meeting restrictions at the time.

1. **Course Title:** Advance course on Resistivity Method and its Applications in Groundwater Management
    - **Specific objective of the course:**
        - To provide knowledge and skills on basic theory on Earth Resistivity method
        - To develop knowledge and skills on resistivity field techniques and data processing and interpretation
    - **Detailed content:** Theory of electrical resistivity method in ground water exploration, resistivity field techniques, data processing, interpretation and applications in ground water exploration and management
    - **Minimum number of Hours:**
        - **Theory:** 12 hrs
        - **Online practice: 12 hrs**
        - **Practical:** 8 hrs
    - **Delivery method**: Face to Face
    - **Target group**: Middle and upper level offices who are having degree or equivalent qualifications (in Science background) and engaged in sector of Natural Resources Management.
    - **Resources to be provided from bidder (Software and hardware):**

- All equipment and accessories required for the training
- Software for post processing
- Inform the minimum hardware specifications for the proposed software

2. **Course Title:** Advance course on Ground Penetrating Radar (GPR) Method and its Applications in Subsurface investigations
    - **Specific objective of the course:**
        - To provide knowledge and skills on basic theory on GPR method
        - To develop knowledge and skills on GPR field techniques and data processing and interpretations
        - To develop GPR Applications in subsurface investigations and natural resources management.
    - **Detailed content:** Radar Principles, theory of GPR method, GPR data collection methods, GPR data processing, interpretation and applications.
    - **Minimum number of Hours:**
        - **Theory:** 20 hrs
        - **Online practice: 6 hrs**
        - **Practical:** 6 hrs
    - **Delivery method**: Face to Face
    - **Target group**: Middle and upper level offices who are having degree or equivalent qualifications (in Science background) and engaged in sector of Natural Resources Management.
    - **Resources to be provided from bidder (Software and hardware):**
        - All equipment and accessories required for the training
        - Software for post processing
        - Inform the minimum hardware specifications for the proposed software

3. **Course Title:** Well hydraulic, Aquifer assessment methods and pumping test.
    - **Specific objective of the course:**
        - To provide knowledge on Darcy law, well hydraulic and well equations, flow behaviour of different wells.
        - To develop knowledge and skills on pumping test including step test and constant yield test, and analysis of pumping test data.
        - To develop knowledge and skills on water quality variation during the pumping.
    - **Detailed content:** Introduction to groundwater flow, well equations, identification of different aquifers, well terminology, drawdown, and well interference, well equations, specific capacity, well performance, aquifer properties (S and T), planning of pumping test, necessary equipment, selection of pumps, wells and observation wells, pre-test, step test, long duration test, recovery test, analysis methods of pumping test, water quality chargers during the test.
    - **Minimum number of Hours:**
        - **Theory:** 16 hrs
        - **Online practice: 8 hrs**
        - **Practical:** 8 hrs
    - **Delivery method**: Face to Face
    - **Target group**: Middle and upper level offices who are having degree or equivalent qualifications and engaged in sector of Natural Resources Management.
    - **Resources to be provided from bidder (Software and hardware):**
        - All equipment and accessories required for the training
        - Software for post processing
        - Inform the minimum hardware specifications for the proposed software

4. **Course Title:** Well construction, groundwater monitoring, well problems and failures, maintenance, development, and protection of wells

    - **Specific objective of the course:**

        - To provide knowledge on types of wells and its construction, construction methods, and selection of tools.
        - To develop knowledge and skills on groundwater monitoring and field measurements. To develop knowledge and skills on well development and protection of wells

    - **Detailed content:** Introduction to types of wells and its advantages and dis-advantages, suitable formations for different wells, types of wells, water well drilling methods and drilling tools, groundwater monitoring, monitoring parameters, frequency, and analysis of monitoring data, wells problems, causes of the problems, over extraction and lifetime of wells, and well development.

    - **Minimum number of Hours:**

        - **Theory:** 20 hrs
        - **Online practice: 6 hrs**
        - **Practical:** 6 hrs

    - **Delivery method**: Face to Face

    - **Target group**: Middle and upper level offices who are having degree or equivalent qualifications and engaged in sector of Natural Resources Management

    - **Resources to be provided from bidder (Software and hardware):**

        - All equipment and accessories required for the training
        - Software for post processing
        - Inform the minimum hardware specifications for the proposed software

4. Expected outputs and Deliverables

Completion of training delivery of the course:

- Online training material hosted on Clients LMS for each course. Including lecture notes, videos, question bank and exercises.
- Conducted online training (including real-time sessions, which will be recorded as appropriate) for maximum 20 participants covering the online portion of the training.
- Conducted the practical part of the training (face-to-face, field work) if the circumstances allow. (Client may cancel this if the circumstances do not allow)

The consulting firm will be responsible for all above set out deliverables

5. Duration and Payments Schedule

The training will be undertaken with a period of 18 months and is expected to start from January 2021. The training contract will be based on lump sum modality and all payments based on realization of respective deliverables as set out in the table below;

The quotation should be done on total cost basis. However, the bidders should clearly indicate the costs of

1. Online
2. Practical

Separately.

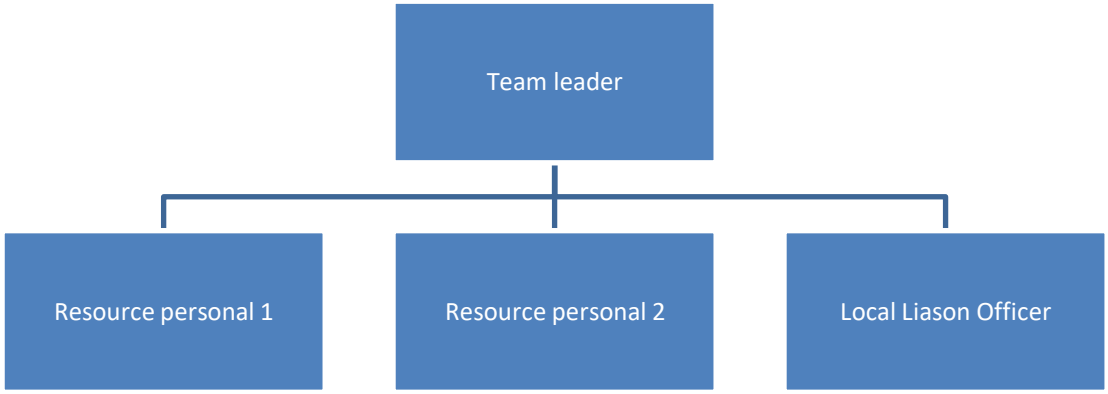
Item	Name	Cost
	Online	X
	Practicals	Y
	Total bid	X+Y

Activity / Deliverable	Due date and remarks	Installment for Payment
Online portion		
Course 1: Advance course on Resistivity Method and its Applications in Groundwater Management	3 month from contract signature, upon client review and approval of deliverable	25% of online potion
Course 2: Advance course on Ground Penetrating Radar (GPR) Method and its Applications in Subsurface investigations	4 months from contract signature, upon client review and approval of deliverable	25% of online potion
Course 3: Well hydraulic, Aquifer assessment methods and pumping test	5 months from contract signature, upon client review and approval of deliverable	25% of online potion
Course 4: Well construction, groundwater monitoring, well problems and failures, maintenance, development, and protection of wells	6 months from contract signature, upon client review and approval of deliverable	25% of online potion
Practical		
Course 1: Advance course on Resistivity Method and its Applications in Groundwater Management	Any time between 3 to 18 months of contract signature after successfully conducting the practical as per clients requirements	25% of practical
Course 2: Advance course on Ground Penetrating Radar (GPR) Method and its Applications in Subsurface investigations		25% of practical
Course 3: Well hydraulic, Aquifer assessment methods and pumping test		25% of practical
Course 4: Well construction, groundwater monitoring, well problems and failures, maintenance, development, and protection of wells		25% of practical

6. Project Team of experts

The following staff shall be employed in team as detailed below;

#	**Post**	**No**
1	Hydrologists / groundwater specialist (Team leader)	1
2	Resource Personal / Assistant lecturers	2
3	Local liaison Officer/ didactics support specialist	1



6.1 Educational Institute - Requirements

The bidder shall be a registered higher/technical educational institution or affiliated with such an institute with at least 10 years of track record.

6.2 Similar Assignments

The consultancy firm should submit experience in performing the services.

Description of similar assignments: surveying or water sector related trainings, with 2 assignments with an average contract value of MVR 200,000.

6.3 Qualifications of the Design and Consultancy team

The Consultant should submit full CV's for each of the proposed staff members highlighting the criteria given below.

	TEAM LEADER		Sub- Category		Total Score	Sub-Score
Education & Qualification	PhD in hydrology, water resources, geology, geophysics or related field.				**6.0**	
General Experience	Experience in undertaking training including online delivery.	(a)	Experience of 05 Years	5	**10.0**	**10.0**
		(b)	Experience of 03 Years	3		**6.0**
		(c)	Experience of 01 Years	1		**2.0**
Specific Experience	Experience in undertaking groundwater related trainings	(a)	Conducted 3 Trainings	5	**4.0**	**4.0**
		(b)	Conducted 2 Trainings	4		**3.2**
		(c)	Conducted 1 Trainings	3		**2.4**

	RESOURCE PERSONAL / ASSISTANT LECTURERS		Sub- Category		Total Score	Sub-Score
Education & Qualification	Masters in hydrology, water resources, geology, geophysics or related field.				**6.0**	
General Experience	Experience in undertaking training.	(a)	Experience of 03Years	5	**10.0**	**10.0**
		(b)	Experience of 02 Years	3		**6.0**
		(c)	Experience of 01 Years	1		**2.0**
Specific Experience	Experience in undertaking groundwater related trainings	(a)	Conducted 3 Trainings	5	**4.0**	**4.0**
		(b)	Conducted 2 Trainings	4		**3.2**
		(c)	Conducted 1 Trainings	3		**2.4**

	LOCAL LIASON OFFICER		Sub- Category		Total Score	Sub-Score
Education & Qualification	Advanced certificate in Social sciences, business administration, environmental science or related field				**6.0**	
General Experience	Previous relevant experience working in the Maldives.	(a)	Experience of 05 Years	5	**10.0**	**10.0**
		(b)	Experience of 03 Years	3		**6.0**

		(c)	Experience of 01 Years	1		**2.0**
Specific Experience	Experience in undertaking community consultations and liaising with community in undertaking training.	(a)	Conducted 3 Consultation / Trainings	5	**4.0**	**4.0**
		(b)	Conducted 2 Consultation / Trainings	4		**3.2**
		(c)	Conducted 1 Consultation / Trainings	3		**2.4**

The Team Leader for this assignment SHOULD NOT be working more than TWO project assignment in the Ministry of Environment.

7 Reporting Requirements

The consultants should submit a report at the end of each deliverable within 10 working days after completing the deliverables, in a format agreed with the MEE/PMU representative.

8 Equipment, logistics and facilities

The Consultants shall ensure that experts are adequately supported and equipped. In particular he/she shall ensure that there are sufficient administrative, computing and secretarial provision to enable experts to concentrate on their primary responsibilities. The Consultant shall meet the full costs for the supply of the teams including all travels, remuneration, insurance, emergency medical aid, facilities and all else necessary for the competent operation of their teams. The Consultants will provide their own office space for their Project team.

There is no specific requirement for the consultant to attend face to face meetings with the client except in the matters relevant to the possible implementation of the 'practicals' part of the trainings. However, the team must be available for scheduled and ad-hoc meetings online using video conferencing.