

Ministry of Environment, Climate Change and TechnologyRepublic of Maldives

TERMS OF REFERENCE (IUL)438-ENV/438/2021/349

CONSULTANCY SERVICES TO DESIGN AND DEVELOP A RESEARCH TO ESTABLISH BASELINE LEVELS OF PERSISTENT ORGANIC POLLUTANTS AROUND K. THILAFUSHI REEF AREA

"Eliminating Persistent Organic Pollutants Through Sound Management of Chemicals Project"

Issued on: 23 November 2021

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i. SCHEDULE OF CRITICAL DATES

Activity	Action Date
Advertised date	28 November 2021
Bid clarification deadline	01 November 2021 before 1200hrs
Proposal submission deadline	06 December 2021 before 1100hrs

ii. SUBMISSION REQUIREMENTS

The following related documents shall be submitted for the bids to be considered sufficiently responsive.

Applicants should submit their proposals containing the following documents and applicable Technical Proposal – Standard Forms and Financial Proposal – Standard Forms under ANNEX A.

a. Technical Proposal - Standard Forms

- 1. Proposal submission form (signed by the owner of the entity) (Tech Form 1)
- 2. Approach, Methodology and Work Plan (Tech Form 2)
- 3. A summary of the work plan must be presented in the format in Work Schedule (Tech Form 3) showing in the form of a bar chart the timing proposed for each activity.
- 4. Curriculum Vitae (CV) of the identified key Experts (Consultant). Copy of academic certificates and reference letters demonstrating experiences listed in this TOR (required experiences and other experiences relevant to this TOR must be specified clearly or highlighted) (Tech Form 4)
- 5. Completed Letter of Commitment (signed by the Chief Surveyor/Team Leader and Research Assistant) (Tech Form 5 & 6)
- 6. Copy of Business (company/partnerships/institutions) registration certificate.
- 7. Copy of GST Registration certificate issued by Maldives Inland Revenue Authority if applicable
- 8. If more than one party wishes to show interest as a JV, Joint Venture or Association Agreement between the parties needs to be provided
- 9. In case of JV, completed JV form (Tech Form 7)

b. Financial Proposal – Standard Forms

- 1. FIN FORM 1 Financial Proposal Submission Form
- 2. Form FIN 2 Financial Breakdown Form
- 3. Form FIN 3: Details Financial Situation (if applicable)
- 4. Form FIN 4: Line of Credit Letter (if applicable)
- 5. Financial statements of the business for the year 2020 (if applicable)
- 6. Business entities that have not completed one year (from the date of business registration to date of bid announcement) are required to submit the bank statement of the business's bank account. (Bank statement should be from the date of account opening to date of bid announcement)

Note 01: All bidders should clearly identify Key Experts (herein referred to as the 'Consultant') carrying out the task. For bids submitted by Company/Institution, the Key Experts signed in Form 5 will be considered for the evaluation process.

Note 02: If bidder fails to submit any of the above listed document, their proposal may not be considered for further evaluation.

Note 03: After the evaluation, highest scoring party will be notified to submit tax clearance report. Tender will be awarded upon submission of tax clearance report

1. INTRODUCTION

The Government of Maldives has received funding from the Global Environment Facility (GEF) for the project "Eliminating Persistent Organic Pollutants Through the Sound Management of Chemicals". The Government intends to apply part of the proceeds towards procuring the services of a Consultant (company/partnerships/institutions) to design and develop a research to establish baseline levels of Persistent Organic Pollutants around K. Thilafushi reef area.

2. PROJECT BACKGROUND

The Government of Maldives has received funding from the Global Environment Facility (GEF) for the project "Eliminating Persistent Organic Pollutants through the Sound Management of Chemicals". The Government intends to apply part of the proceeds towards procuring the services for undertaking monitoring of fish species to understand the POPs and heavy metals concentration of the marine species and lagoon sediments in K. Thilafushi reef area.

K. Thilafushi is a 30-year-old 10-hectare dumpsite that has been reclaimed with wastes consisting of mixed municipal solid wastes and hazardous wastes which is a potential source of trace elements and Persistent Organic Pollutants. Due to the uncontrolled waste dump, in the absence of pollution mitigation measures waste spill into the lagoon.

The main objective of this consultancy is to design and develop sample collection methodology and methods to carry out research to establish baseline levels of POPs (Persistent Organic Pollutants) in the fish species to understand the POPs and heavy metals concentration of the marine species in K. Thilafushi reef area and to determine the impact of heavy metals and POPs in the aquatic food chain, including the possible risks to fish consumers.

Exposure to POPs through the food consumption may result in adverse health effects to human (WHO, 2003). Some of these POPs include polychlorinated dibenzo-p-dioxins (PCDDs), Polychlorinated dibenzofurans (PCDFs), Polychlorinated biphenyls (PCBs), Organochlorine compounds (OCs). Their physicochemical characteristics, bio accumulative and bio magnification properties, especially in fatty tissues in aquatic food webs make POPs harmful to human health and the environment.

However, there is limited data on environmental trace element/POPs levels in the Maldives, and although seafood is consumed from proximity to this site, there is limited data regarding trace elements/POPs concertation in the fish species around the K. Thilafushi reef area.

This project is implemented by Ministry of Environment Climate Change and Technology with United Nations Development Program acting as Global Environment Facility accredited agency. The project will also support implementation of the developmental targets and priorities of the Government set out in the Strategic Action Plan (SAP) for the five-year period 2019-2023.

3. OBJECTIVE AND SCOPE OF THE CONSULTANCY

The main objective of this consultancy is to collect samples of lagoon sediments and fish to be analyzed as per the parameters set in Table 1, and to develop a research report based on the results of the sample analysis to identify the level of POPs in lagoon sediments and fish species.

The consultant is to undertake the following tasks as part of this consultancy:

- 1. Design, development and finalization of sample collection, analysis, interpretation and reporting approaches
- 2. Determine the sample size including the types of species that will be studied
- 3. Conduct research using a range of research methods
- 4. Develop regular research updates and reports
- 5. Conduct data analysis and produce a research report outlining the population at risk, species of concern

Table 1: Sampling details for K. Thilafushi

Sample	Compounds to be tested
	PCB congeners 28, 52, 101, 105, 118, 123, 153, 128
	2,3,7,8-substituted PCD/PCDF (17 congeners)
Lagoon sediments and fish	TOX (total organic halogen), TPH (total petroleum
species	hydrocarbons)
	Ag, As, Cd, Cr, Cu, Hg, Ni, Pb

4. GOVERNANCE AND ACCOUNTABILITY

The consultant agrees that the data collected and documents given to itself and its personnel shall not be used for any other purpose, that the data and documents shall be returned to the Ministry in the event of final acceptance and termination of the contract.

5. FACILITIES TO BE PROVIDED BY MECCT

Project Management Unit will assist the consultant to identify a laboratory for sample analysis and cover the costs incurred with analysis and transportation of the samples.

6. QUALIFICATIONS AND EXPERIENCE

9.1 Key Experts

The scope of work for this assignment requires a team of skilled professionals with previous experience in similar projects.

It is expected that the contractor shall provide a team of experts with experience in similar activities and work under similar conditions and constraints, with specific professional certifications and authorizations for the services provided in the project, required by the legal framework.

5.1.1 Key Expert 1: Chief Surveyor/Team Leader

The roles and responsibilities of the Chief Surveyor/Team Leader are as follows;

- Representing the project team against Ministry of Environment, Climate Change and Technology and managing the project expert team
- Monitoring the project schedule and being responsible for the quality of the outputs
- Coordinating the planning, implementation of the studies and ensuring that the work is conducted following the highest professional standards.
- Ensuring that the quality control and supervision mechanism in place for the survey is effective, manage the data collection team and ensure that each member performs his or her specific scope of work.

5.1.1.1 Qualifications and Skills

• A postgraduate degree in a relevant science discipline, including but not limited to environmental and or/chemistry or any related field. Preference will be given to candidates with a doctoral-level qualification.

5.1.1.2 General Professional Experience

• At least 3 years of general working experience in the fields of environmental protection and management, chemical and industrial engineering, hazardous waste management, project management and other relevant fields

5.1.1.3 Specific Professional Experience

- Demonstrated knowledge and experience in implementing at least 2 research methodologies including quantitative and qualitative data collection methods in the science/social discipline or in a comparable relevance and scale
- Understanding of issues related to Chemicals and Waste especially Persistent Organic Pollutants (POPs) is highly advantageous

5.1.2 Key Expert 2: Research Assistant

5.1.2.1 Qualifications and Skills

• Minimum Bachelor's degree in research, surveying, environment, chemical and industrial engineering, hazardous waste management, and other relevant fields

5.1.2.2 General Professional Experience

 At least 1 years of general professional experience in the fields of environmental protection and management, chemical and industrial engineering, hazardous waste management, and other relevant fields

5.1.2.3 Specific Professional Experience

• Demonstrated experience in minimum 1 similar assignment relevant to sampling, surveying, research and reporting or any other relevant field.

7. DELIVERABLES AND PAYMENT SCHEDULE

Payments to the consultants will be based on the following breakdown, after acceptance the invoices submitted by the consultant and upon successful achievement of the corresponding deliverables:

	DELIVERABLE	DETAILS	DURATION	END PRODUCT	PAYMENT SCHEDULE
1	Inception meeting with the PMU and submission of the meeting report	Inception meeting to demonstrate the Consultant's understanding of the assignment in accordance with the TOR and to present brief overall work plan and methodology that will be followed by the Consultant to conduct the survey and reporting. Workplan should consider the period of delays brought by the client of setting up of meetings, review and approval of documents, facilitating	5 calendar days from the date of contract signing	 Inception meeting report Finalized workplan 	10% upon completion and approval of deliverable 1
2	Finalize methodology and approach to be used for sample collection, analysis, and reporting.	of any relevant documents Technical approach and methodology for the assignment. The study design and methodology will be discussed and agreed with the project team and all relevant stakeholders at the beginning of the consultancy. The methodology should include: • A representative sample sizes • Species of interest to be collected • Number of locations for sample collection	Within 1 week of submission of deliverable 1	Final report outlining sample size, sample collection protocols, data analysis, and reporting approaches	20% upon completion and approval of deliverable 2

3	Sample collection report	Samples to be collected as per the methodology submitted and approved as per deliverable 2.	Within 3 weeks of submission of deliverable 2	Sample collection report	30% upon completion and approval of deliverable 3
		Collected samples will be sent to a laboratory for sample analysis and PMU will cover the costs incurred with analysis and transportation of the samples			
4	Draft Report outlining the data interpretation, population at risk, species of concern based on results received after the samples collected have been analyzed.		Within 3 weeks of receipt of data analysis report	Draft Report outlining data analysis, population at risk, species of concern	20% upon completion and approval of deliverable 4
5	Submit the final research report		Within 3 weeks of submission of deliverable 4	Final Research Report	20% upon completion and approval of deliverable 5

8. REPORTING OBLIGATIONS

The Consultant is required to coordinate with the PMU, relevant government and non-government institutions during the consultation so that risks are identified, avoided, mitigated and managed throughout the assignment. The Consultant will report directly to the Project Manager.

PMU will facilitate the Consultant in setting up and obtaining relevant documents, arranging meeting rooms at MECCT, logistical and venue arrangements for stakeholder workshops if required.

Unit:

Eliminating Persistent Organic Pollutants Through the Sound Management of Chemicals Project Management Unit

Environmental Management and Conservation Department Ministry of Environment, Climate Change and Technology

Green Building, Handhuvaree Hingun

Maafannu, Male', 20392

Republic of Maldives

Project:

"Eliminating Persistent Organic Pollutant through the Sound Management of Chemicals"

Duty Station:

The project shall be based in Malé, Maldives. The consultant visits the project area in K. Thilafushi.

9. SCHEDULE FOR THE ASSIGNMENT

Duration of the assignment is **4 months** from the date of signing of the contract. The proposed duration would not account for the period of delay brought by the client of setting up of meetings, review, and approval of documents, facilitating any relevant documents.

10. QUERIES

For any queries, please email <u>procurement@environment.gov.mv</u> copied to <u>asnan.ahmed@environment.gov.mv</u> before 1200hrs on 30 November 2021.

11. EVALUATION CRITERIA

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

relevant science nd or/chemistry or eneral professional and management, anagement, project ach additional year	[60]
nd or/chemistry or eneral professional and management, unagement, project	
nd or/chemistry or eneral professional and management, unagement, project	
and management, anagement, project	
and management, anagement, project	
	[15]
in implementing and qualitative r in a comparable nment up to 2	
lated to Chemicals (POPs) is highly	[30]
range of partners, as demonstrated as	
	[40]
	l
search, surveying, hazardous waste oints postgraduate	[10]
neral professional and management, management, and r up to 2 years	[15]
similar assignment	1
	POPs) is highly ange of partners, is demonstrated as earch, surveying, hazardous waste bints postgraduate meral professional and management, and

Total technical score (s): 100

- The minimum technical score (s) required to pass is: 62 Points, proposal that does not qualify the minimum technical score will be disqualified from further evaluation.
- The formula for determining the financial scores is the following: Sf = 100 x Fm / F, in which 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 = [0.6], and F = [0.4]

Financial Situation evaluation

- To be eligible the financial statements of the bidding party must show, minimum annual turnover of **MVR 50,000.00**, for the year 2020.
- To be eligible the financial statements of the bidding party must show, Minimum value of **MVR 50,000.00**, for liquid asset, for the year 2020.
- For business mentioned in the section (ii) B no 5, to be eligible the business's bank statement must show a credit balance of minimum MVR 50,000.00 (or)
- If bidding party is unable to meet any of the above requirement they shall submit "Line of Credit Letter" as per the template in FIN FORM 3. (credit limit shall be no less than MVR 50,000.00

12. SUBMISSION

Bid submission	On or before 02 December 2021 – 11:00 hours local time
Bid opening	02 December 2021 – 11:00 hours local time.
	Proposals will be opened in the presence of the proponents' representatives
	who choose to be present at the address below at the time of proposal opening.
Submission	Proposals must be delivered in sealed envelopes titled
instruction	
	"Do not Open Before 02 December 2021 – 11:00 hours – "Consultancy
	Services to Design and Develop A Research to Establish Baseline Levels
	of Persistent Organic Pollutants in The Fish Species Around Thilafushi
	Reef Area" and the submitting party's name and address
	Electronic submission is not permitted. Late proposals will be rejected.
Submission address	Procurement Section
	Ministry of Environment, Climate Change and Technology
	Green Building, Handhuvaree Hingun, Maafannu
	Male', 20392, Republic of Maldives
	Email: procurement@environment.gov.mv
	Website: www.environment.gov.mv
	Project name: Eliminating Persistent Organic Pollutants Through the Sound
	Management of Chemicals

Annex A

TECH FORM 1 – Proposal Submission Form

[Location, Date]

To: [Name and address of Client]

Dear Madam/Sir:

I, the undersigned, offer to provide the consultancy service for "Consultancy Services to Conduct A Baseline Assessment on National Use of Chemicals and Associated Risks" in accordance with your Request for Proposal dated [xxx. I hereby submit my Proposal, which includes all required documents as per Request for Proposal.

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

If negotiations are held during the period of validity of the Proposal, I undertake to negotiate on the basis of the proposed staff. my Proposal is binding upon myself and subject to the modifications resulting from Contract negotiations.

I undertake, if my Proposal is accepted, to initiate the services and fulfil the terms and conditions related this contract.

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

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Consultant (company/partnerships/institutions):

Address:

TECH FORM 2 - Approach, Methodology and Work Plan

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

- a) Methodology for each activity,
- b) Work Plan

a) Technical Approach and Methodology

[In this chapter the Consultant 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) Work Plan

[In this chapter the Consultant 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.]

TECH FORM 3 – Work Schedule

CONSULTANCY SERVICES TO DESIGN AND DEVELOP A RESEARCH TO ESTABLISH BASELINE LEVELS OF PERSISTENT ORGANIC POLLUTANTS IN THE FISH SPECIES AROUND THILAFUSHI REEF AREA Week 10 Week 12 Week 13 Week 14 Week 15 Week 16 Week 2 Week 3 Week 5 Week 6 Week 9 Week 11 Week 4 Week 7 Week 8 Week 1 **Deliverables** Inception meeting with the PMU and submission of the meeting report Finalize methodology and approach to be used for sample collection, analysis, and reporting. Sample collection report Draft Report outlining the data interpretation, population at risk, species of concern based on results received after the samples collected have been analyzed. Submit the final research report Inception meeting with the PMU and submission of the meeting report Finalize methodology and approach to be used for sample collection, analysis, and reporting.

TECH FORM 4 – Curriculum Vitae

- 1. Name of Consultant:
- **2. Education** [Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment]:
- 3. Membership of professional associations
- 4. Other Training
- **5.** Countries of work experience [List countries where the Consultant has worked in the last ten years]:
- **6.** Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]:
- 7. Experience/ employment record [Starting with present position, list in reverse order every employment held the Consultant 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:

Job description:

8. Summary of projects/assignments undertaken/ role

Name of project/ assignment:

Experience classification: General / specific

Scope of project/ assignment:

From [Month/Year] - To [Month/Year]:

Positions held:

9. Past commitments in projects with the Ministry of Environment, Climate Change and Technology

Name of the Contract/Project:

From [Month/Year] – To [Month/Year]:

Positions held:

Summary of role

TECH FORM 5: Letter of Commitment (Chief Surveyor/Team Leader)

[Location, Date]
To: [Name and address of Client]
Ref no:
Dear Sir/Madam,
I am writing to confirm my availability to provide services as the Chief Surveyor/Team Leader to Consultancy Services to Design and Develop A Research to Establish Baseline Levels of Persistent Organic Pollutants in the Fish Species Around Thilafushi Reef Area - for the Ministry of Environment, Climate Change and Technology.
I undertake, if this proposal is accepted, to complete and deliver the whole of the services assigned to me in the scope of services.
I undertake, if this proposal is accepted upon receipt of the Ministry of Environment, Climate Change and Technology's notice, to commence performance of the services with due expedition and without delay.
Yours sincerely, Name: ID card No: Date: Signatory:

TECH FORM 6: Letter of Commitment (Research Assistant)

TECH FORM 7: Joint Venture Partner Information Form

[The Bi	dder sh	all fill in this F	form in accordance with the instructions indicated below].
Date: [i	insert da	ate (as day, mo	nth and year) of Bid Submission]
Procure	ement R	eference No.: [insert reference]
Page	of	pages	

1.Bidder's Legal Name:	{insert Bidder's legal name}
2.JV's Party legal name:	{insert JV's Party legal name}
3.JV's Party Country of Registration:	{insert JV's Party country of registration}
4.JV's Party Year of Registration:	{insert JV's Part year of registration}
5.JV's Party Legal Address in Country of Registration:	{insert JV's Party legal address in country of registration}
6. JV's Party Authorized Represer	
Name:	{insert name of JV's Party authorized representative}
Address:	{insert address of JV's Party authorized representative}
Telephone/Fax numbers:	{insert telephone/fax numbers of JV's Party authorized representative}
Email Address:	{insert email address of JV's Party authorized representative}

^{7.} Attached are copies of original documents of: {check the box(es) of the attached original documents}

- Articles of Incorporation or Registration of firm named in 2, above.
- In case of government owned entity from the Republic of Maldives, documents establishing legal and financial autonomy and compliance with commercial law.

FIN FORM 1 – Financial Proposal Submission Form

[Location, Date]
To: [Name and address of Client]
Dear Madam/Sir:
I, the undersigned, offer to provide Training service for "Consultancy Services to Design and Develop A Research to Establish Baseline Levels of Persistent Organic Pollutants in the Fish Species Around Thilafushi Reef Area" 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 in MVR]. This amount is inclusive of the all local taxes.
My Financial Proposal shall be binding upon me subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal.
I understand you are not bound to accept any Proposal you receive.
Yours sincerely,
Authorized Signature [In full and initials]:
Name and Title of Signatory:
Name of Consultant (company/partnerships/institutions)
Address:

FIN FORM 2 - Financial Breakdown Form

Reference No: (generated by the proponent) Quotation validity: 90 days

No.	Description	Price/Unit (MVR	Total
1	Inception meeting with the PMU and submission of the meeting report		
2	Finalize methodology and approach to be used for sample collection, analysis, and reporting.		
3	Sample collection report		
4	Draft Report outlining the data interpretation, population at risk, species of concern based on results received after the samples collected have been analyzed.		
5	Submit the final research report		
	Total:		
	GST		
	Total with GST		

Indicate the total cost with detail cost to be paid in Maldivian Rufiyaa (MVR).

Note: The total contract price should be quoted inclusive of Goods and Services Tax (GST) or any applicable axes as per the Tax Legislation and must be shown in the breakdown.

Authorized Signature and stamp

FIN FORM 3 – Details of Financial Situation

Each Bidder must fill in this form

Financial Data for Previous Years [MVR Equivalent]				
	Year 2020			
Information from Balance Sl	neet			
Total Assets				
Total Liabilities				
Net Worth				
Current Assets				
Current Liabilities				
Working Capital				
Information from Income Sta	atement			
Total Revenues				
Profits Before Taxes				
Profits After Taxes				
_	financial statement (balance sheets including all related notes, and income ad above, complying with the following conditions.			
All such document	s reflect the financial situation of the Bidder.			
Historic financial s	tatement must be complete, including all notes to the financial statements.			
Historic financial statements must correspond to accounting periods				

FIN FORM 4 - Line of Credit Letter

[letterhead of the Bank/Financing Institution/Supplier]

[date]

To:[Name and address of the Contractor]

Dear.

You have requested {name of the bank/financing institution/supplier issuing the letter) to establish a line of credit for the purpose of executing {insert Name and identification of Project}.

We hereby undertake to establish a line of credit for the aforementioned purpose, in the amount of {insert amount}, effective upon receipt of evidence that you have been selected as successful bidder.

This line of credit will be valid through the duration of the contract awarded to you.

Authorized Signature:	
Name and Title of Signatory:	
Name of Agency:	