



**Ministry of Environment, Climate Change and Technology**

Republic of Maldives

**TERMS OF REFERENCE**

(IUL)438-ENV/438/2021/150

**DESIGNING AN INTERIM STORAGE FACILITY FOR HAZARDOUS WASTES IN ADDU CITY**

**“Eliminating Persistent Organic Pollutants Through Sound Management of Chemicals Project”**

**Issued on:** 23<sup>rd</sup> May 2021

**Issued By:** Eliminating Persistent Organic Pollutants Through Sound Management of Chemicals Project –  
Project Management Unit

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## **SCHEDULE OF CRITICAL DATES**

| <b>ACTIVITY</b>              | <b>ACTION DATE</b>                       |
|------------------------------|--|
| Advertised date              | 23 <sup>nd</sup> May 2021                |
| Pre-bid meeting              | -  |
| Bid clarification deadline   | 30 <sup>th</sup> May 2021 before 1200hrs |
| Proposal submission deadline | 1000hrs on 31 <sup>st</sup> May 2021     |

## **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.

### **Technical Proposal – Standard Forms**

1. Proposal submission form – (Tech Form 1)
2. If the bid is submitted as a company, Company portfolio(Including brief description of general and specific experiences, with references )
3. Letter of commitment to undertake the project – (Tech Form 2).
4. Curriculum Vitae (CV) of the Team leader (required experiences and other experiences relevant to this TOR must be specified clearly or highlighted) – (Tech Form 3)
5. Copy of Business registration certificate
6. Copy of tax Registration certificate issued from Maldives Inland Revenue Authority
7. If more than one party wishes to show interest as a Joint Venture (JV) or Association Agreement between the parties needs to be provided

### **Financial Proposal – Standard Forms**

8. Completed proposal submission form (Fin Form 1)
9. Completed financial breakdown form (Fin Form 2).

## 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 undertaking a preliminary work for establishment of a interim storage area for PCB wastes, transfer of equipment and rehabilitation of contaminated soil in Fuvahmulah. In this context, the main objective of this consultancy is to design a 700 sq. ft. hazardous waste interim storage facility within the new Regional Waste Management Centre in Addu city.

## 2. PROJECT BACKGROUND

The Republic of Maldives is a Small Island Developing State (SIDS) which faces sustainable development challenges such as small but growing populations, land scarcity, vulnerability to climate change impacts (and other natural disasters) as well as economic development problems due to high transportation costs, lack of adequate infrastructure and lack of industrial development incentives. The Maldives is an archipelago comprised of 1,190 coral islands in 26 atolls over an area of about 750 km on a North-south axis and 120 km on an east-west axis. The land area of the Maldives accounts for about 1% of the Country’s territory. The Maldives islands are low lying land areas with an average height above sea level of 1.8 meters (m).

The country’s population of approximately 400000 people dispersed across 187 inhabited islands. An additional more than 166 islands have tourist resorts. Waste generation is estimated to be 324,000 tons annually with consisting of approximately 0.5 to 11% of hazardous chemicals and of approximately 3-9% of plastics depending on location and size of the island. The fact that (chemical) waste is being generated on 278 island presents the country with an incredible challenge, as land is very scarce, low lying and transportation of chemicals and waste from island to island is costly and complicated. The inadequate storage options and current disposal practices of hazardous chemicals and waste, especially open burning of waste at dumpsites or disposal near the coastline, make it very likely that these toxic chemicals and waste will end up in the waters and oceans. In the Republic of Maldives, the tourism sector accounts for more than 28% percent of the Gross Domestic Product (GDP) of the economy. Tourists to the Maldives are seeking a pristine environment, not one with polluted waters, degraded coral reefs, waste dumps which are openly burning or waste floating in the ocean. Therefore, the Sound Management of Chemicals and waste, especially the environmentally sound management of Persistent Organic Pollutants (hereinafter referred to as POPs) and hazardous waste, is an important element to achieving environmental sustainability. Further, given the economic importance of tourism to the Maldives, implementing environmentally sound chemical and waste management systems would help decouple growth in the tourism sector from environmental degradation.

To tackle these environmental and human health risks, the Government of the Republic of Maldives through the Ministry of Environment, Climate Change and Technology (MECT) has already taken some steps to try to manage its growing chemicals and waste management problems. Maldives has ratified the Stockholm Convention (SC) on 17 October, 2006 and in accordance to Article 7 of the Convention has submitted its National Implementation Plan (NIP) to the Stockholm Convention Secretariat (SCS) on 18 July, 2017, which covers the initial POPs as well as the new POPs added at the 4th and the 5th Conference of the Parties.

According to this NIP the highest-ranking national Priorities are the following:

- a) First Priority: The Implementation of measures to strengthen the institutional and regulatory framework; which includes the (i) developing legislation for chemicals management; (ii)

- strengthening institutional capacity; (iii) improving data collection and management systems and (iv) conducting research on the effects of POPs;
- b) Second Priority: Developing an action plan to eliminate Polychlorinated Bi-Phenyls(PCB) - containing equipment and its wastes by 2025, which includes the (i) identification, labelling and mapping where PCBs and equipment potentially-containing PCBs are located in the country); (ii) putting in place labelling mechanism for all PCB-containing equipment; (iii) establishing adequate storage facilities for replaced equipment containing PCBs; (iv) formulating guidelines for disposal of equipment-containing PCBs; and (v) disposing safely of equipment containing PCBs.
  - c) Reducing the incineration and open burning of wastes (including medical and hazardous waste), which is the source of 98.6% of U-POPs releases in the country- totalling 153.4 g-TEQ/year;
  - d) Raising awareness through the development of education curricula and targeted awareness campaigns;
  - e) Establishing a standard Chemical Management System, including chemical labelling in multiple languages.

In order to address the above-mentioned barriers the project will focus on addressing regulatory/policy barriers, technical and capacity and knowledge barriers so that the Maldives has a) a better foundation to establish a nationwide environmentally sound Management system to address POPs and highly hazardous chemicals, with b) the adequate coordination of key public, private and community stakeholders, regulatory departments, and centres of expertise, and c) the enhanced capacity of all involved, for the Environmentally Sound Management of Chemicals.

The project is implemented by MECT.

The project will also support implementation of the developmental targets and priorities of the Government set out in the Strategic Action Plan (SAP) for five-year period 2019-2023.

### **3. OBJECTIVES AND SCOPE OF WORK**

As per NIP of the Maldives, there only potentially PCB-containing equipment i.e. transformers and switchgears as POPs waste and their environmentally sound disposal will be completed with this GEF project. Currently, there are no proper destruction/elimination options for POPs wastes within the country, and therefore, they will be prepared for re-export. In this context, the transformers distributed in several locations in Fuvahmulah island have to be collected, weighed, packaged and temporary stored in a secure place to make them ready for re-export for environmentally sound disposal. Prior to re-export for disposal, these equipment will be temporarily stored in order to reduce the possible risk of further contamination. In the future, the interim storage facility is planned to be used for management of hazardous wastes in the region.

For this purpose, within the aforementioned GEF POPs Project under “Activity 2.1.2.1: Current PCB interim storage facilities upgraded to ensure environmentally sound storage”, a preliminary work is to be conducted in order to:

- Establish a interim hazardous waste storage facility through design and build modality in Addu City within the new Waste Management Centre for collection of all PCB containing equipment in one place
- Collect, weigh and pack PCB-contaminated transformers (as per UN guideline) in Fuvahmulah and transfer them to the interim storage facility in Addu City
- Excavate the contaminated soil from the former storage rooms in Fuvahmulah
- Remediation of contaminated soil in 7 rooms (sub-stations - approx. 12-15 Sq. feet each)

The objective of this consultancy is to prepare detailed engineering design for the interim hazardous waste storage facility.

## **DUTIES AND RESPONSIBILITIES**

Based on the above-described general scope of work for this assignment, under the direct supervision and in close coordination/communication with PMU and the Ministry of Environment, Climate Change and Technology, (MECT), the individual consultant /firm/JV shall be responsible for carrying out the following tasks:

### **Concept and Detail Design of the interim storage area for collection and storage of PCB containing equipment and for hazardous wastes in the future**

This task should include the following specific activities, as a minimum:

- **Task 1:** Setting up a kick-off meeting, where the client and individual/firm are required to discuss and develop an approach for the execution of the activities and propose a work plan. (The Client will provide all available information required for the successful completion of the assignment).
- **Task 2:** Design of the hazardous waste storage facility as per the following criteria and as per the provisions set out in Dangerous Chemicals Regulation (Regulation Number: 2019/R-1057) and the design approval by the Ministry of Environment, Climate Change and Technology. The design shall also be complemented with the following information and BOQs.
  - Preliminaries
  - Site clearance
  - Earthworks
  - Concrete works
  - Reinforcement
  - Formwork
  - Masonry works
  - Plastering works
  - Structural steel works
  - Painting works
  - Electrical works
  - Doors and windows
  - Roofing
  - Plumbing
  - Others

Relevant stakeholders and other third parties should be consulted in the execution of above tasks.

## 5. MAIN DELIVERABLES

The facility is planned to be developed in Addu City and one travel is foreseen to the project area in Addu city. Travel and accommodation costs will be covered by the Project as per the government financial regulations.

| Activities  | Deliverables   | Submission Date      | Approval Date        | Target Delivery Time |
|---|--|----------------------|----------------------|----------------------|
| <b>Task 1:</b> Setting up a kick-off meeting and workplan   | - Submission of kick-off meeting minutes   | 1 <sup>st</sup> week | 2 <sup>nd</sup> week | 2 <sup>nd</sup> week |
| <b>Task 2:</b> Preparing detailed engineering designs, drawings, technical specifications costs and quantify estimation (BoQ) required for the interim storage facility | - Design Reports<br>- BOQ reports<br>- Presentation and submission of the design in AutoCad and PDF format | 3 <sup>rd</sup> Week | 4 <sup>th</sup> Week | 5 <sup>th</sup> Week |

## 6. GOVERNANCE AND ACCOUNTABILITY

The contract shall be managed by PMU and MECT and the beneficiary is MECT. No facilities shall be provided by MECT. The contractor shall ensure that staff assigned for this project is adequately supported and equipped and shall ensure that the service comply with the provisions of the national legislation. It shall also transfer funds as necessary to support its activities under this contract and ensure that its employees are paid regularly and in a timely manner.

## 7. PROFESSIONAL QUALIFICATIONS OF THE SUCCESSFUL CONTRACTOR

An individual / firm / Joint Venture is eligible to apply for this consultancy. In case the proposal is submitted on behalf of a company or a JV, team leader should be identified. The team lead assigned for the work will only be evaluated.

In case of a JV/ company the applicant shall propose a team leader that fulfils the qualifications and experience outlined below:

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

- 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.

### Qualifications and Skills

- Minimum University degree in Civil Engineering, or Architecture and other relevant fields
- Good command of English

### General Professional Experience

- Minimum 05 years of general working experience in construction sector e.g. civil engineering, architecture or in a related field.

### Specific Professional Experience

- Undertaking minimum 5 assignments related to designing and construction of buildings and warehouses, provision of equipment for construction and maintenance of buildings, etc.
- Experience in design / construction of waste management/chemicals warehouse facilities is a strong advantage

### 8. DURATION OF THE CONSULTANCY

Duration of the assignment is 45 calendar days upon signing the contract

### 9. REPORTING OBLIGATIONS

The successful applicant will work closely with the PMU. The applicant will report directly to the Project Manager. The applicant shall attend to progress meetings once every week and on need basis with the PMU.

### 10. EVALUATION OF PROPOSALS

| DETAILS   | MAXIMUM POINTS |
|---|----------------|
| <p><b>Qualification and skills of the Team Leader</b></p> <ul style="list-style-type: none"> <li>• [20] Minimum University degree, additional [10] points for holding a Master’s degree in Civil Engineering, or Architecture and other relevant fields*</li> <li>• [10] points for fluency in written and spoken English and excellent interpersonal skills</li> </ul>   | 30 points      |
| <p><b>General Professional Experience of the Team Leader</b></p> <ul style="list-style-type: none"> <li>• [20] Minimum 05 years of general working experience in construction sector e.g. civil engineering, architecture or in a related field* [02] points for each additional year up to 5 years</li> </ul>  | 30 points      |
| <p><b>Specific Professional Experience of the Team Leader</b></p> <ul style="list-style-type: none"> <li>• [20] points for demonstrated work experience of minimum 5 assignments* [02] points for each additional assignment up to 05 assignments related to designing and construction of buildings and warehouses, provision of equipment for construction and maintenance of buildings, etc.</li> <li>• [05] points for each, up to 02 assignments related to design / construction of waste management/chemicals warehouse facilities. (Not a minimum requirement)</li> </ul> | 40 points      |

**\*If the minimum set qualification and skills, general and specific professional experience is not met, then the party will be disqualified.**

**Total technical score (s): 100 points**

- The minimum technical score (s) required to pass is: 60 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:  
 $S_f = 100 \times F_m / F$ , in which  $S_f$  is the financial score,  $F_m$  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  $F = [0.4]$

## 11. PAYMENT

Payments will be made in accordance with the schedule specified below:

| REQUIREMENT  | ALLOCATION  |
|--|-------------|
| Setting up a kick-off meeting and submission of meeting minutes;<br>Submission and acceptance of detailed work plan  | 05%         |
| Submission and acceptance of 1 <sup>st</sup> drafts for: <ul style="list-style-type: none"> <li>• Engineering designs and drawings,</li> <li>• Technical specifications costs and quantify estimation (BoQ)</li> </ul> | 45%         |
| Submission and acceptance of final: <ul style="list-style-type: none"> <li>• Engineering designs and drawings,</li> <li>• Technical specifications costs and quantify estimation (BoQ)</li> </ul>                      | 50%         |
| <b>Total</b>   | <b>100%</b> |

## 12. ADDITIONAL INFORMATION

Documents and data provided by the government for the purpose of this assignment which is not of public nature shall be considered confidential and should not be disclosed to any other party. All products produced as part of this assignment and shall be handed over to the PMU at the completion of the contract and will become the sole property of MECT.

## 13. SUBMISSION

| Bid submission         | On or before 31st May 2021 – 10:00 hours local time  |
|------------------------|--|
| Bid opening            | 31st May 2021 – 10:00 hours local time.<br>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 instruction | Proposals must be delivered in sealed envelopes titled<br><b>“Do not Open Before 31st May 2021 hours - Designing an Interim Storage Facility for Hazardous Wastes in Addu City” and the submitting party’s name and address</b><br>Electronic submission is not permitted. Late proposals will be rejected.  |
| Submission address     | Procurement Section<br>Ministry of Environment, Climate Change and Technology<br>Green Building, Handhuvaree Hingun, Maafannu<br>Male’, 20392, Republic of Maldives<br>Email: <a href="mailto:procurement@environment.gov.mv">procurement@environment.gov.mv</a><br>Website: <a href="http://www.environment.gov.mv">www.environment.gov.mv</a><br>Project name: Eliminating Persistent Organic Pollutants Through the Sound Management of Chemicals |