

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Ministry of Climate Change, Environment and Energy
Male', Republic of Maldives

Eliminating Persistent Organic Pollutants Through Sound Management of Chemicals

CIVIL ENGINEER

TERMS OF REFERENCE

Number: (IUL)438-HRU/438/2024/338

1. 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 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 400,000 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 approximately 0.5 to 11% of the waste consisting 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 Climate Change, Environment and Energy (MCCEE) 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:

1. 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;
2. Second Priority: Developing an action plan to eliminate PCB-containing equipment and its waste 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.
3. 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- totaling 153.4 g-TEQ/year;



4. Raising awareness through the development of education curricula and targeted awareness campaigns;
5. 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 better foundation to establish a nationwide environmentally sound Management system to address POPs and highly hazardous chemicals, with the adequate coordination of key public, private and community stakeholders, regulatory departments, and centers of expertise, and the enhanced capacity of all involved, for the Environmentally Sound Management of Chemicals.

The project is implemented by UNDP as GEF's Implementing Agency and MCCEE as national executing agency.

Within the framework of the GEF POPs Project, an interim storage facility for hazardous chemicals and wastes is planned to be developed in Raa Atoll Vandhoo. The Government of Maldives, through the Ministry of Environment, Climate Change, and Energy, is seeking a full-time Civil Engineer (CE) to provide technical assistance and input during the construction of this facility.

SCOPE OF SERVICES

The tasks to be undertaken by the CE, in close collaboration with the PMU, MCCEE and relevant stakeholders, include the following:

Site Inspection and Civil Works Oversight

- Visit the project site at Raa Vandhoo and inspect the civil works for the construction of the interim storage facility for hazardous chemicals and wastes.
- Assist and advise the PMU in developing and reviewing proposals, concepts, and designs related to the establishment of the interim hazardous chemicals and wastes storage facility.
- Provide necessary comments and suggestions on the construction plans.
- Supervise the work of the contractor involved in establishing the the interim hazardous chemicals and wastes storage facility.



- Ensure that construction is carried out according to the contract document and work schedule.
- Review contractors' invoices to ensure accuracy and compliance with contract terms.
- Inspect the quality control tests conducted by the contractor and ensure that quality meets the specifications in the contract document.
- Report any contractor actions that pose a risk to human health or the environment, including occupational health and safety violations.
- Conduct the final inspection of the fully completed project with a representative from the MCCEE, and prepare and submit a Project Completion Report after the final inspection.
- Check and verify as-built drawings prepared by the contractor, ensuring any required amendments are addressed under the supervision of the Engineer.
- Supervise contractors conducting field surveys, such as topographic, hydro-geological, and geological surveys, and prepare technical reports on all measurements for submission to the MCCEE.
- Develop a Quality Control and Quality Assurance Plan to ensure that structures are built in conformity with contractual specifications, approved drawings, standards, and good engineering practices.
- Ensure that the contractor adheres to the Environment and Social Management Plan provided in their contract document.
- Conduct inspections of the facility during the defect liability period as needed and inform the contractor of any outstanding works and defects.
- Assist in other relevant tasks related to the civil works for the establishment of interim hazardous chemicals and waste storage facility
- Tender Documentation and Procurement Support
- Prepare tender documents and Bills of Quantities (BOQs) required for the construction of the facility.
- Advise on the tendering process, including procurement and contract negotiation stages.
- Assist in the review and evaluation of project reports and documents.

Capacity Building

- Undertake capacity-building activities to enhance the skills and competencies of Ministry staff, including but not limited to:



- Reviewing designs for the construction of interim storage facilities for hazardous chemicals and wastes.
- Conducting contract negotiations and evaluations.
- Preparing bid and contract documents.
- Managing and monitoring projects

2. REPORTING OBLIGATIONS

The Civil Engineer will report to the Project Manager. On a day-to-day basis, s/he will work in close coordination with the PMU team.

3. KEY QUALIFICATIONS AND EXPERIENCE

1. A Bachelor degree in civil or environmental engineering with a Master's Degree in a field related to the scope of work specified in the TOR with Minimum 07 years working experience in a field related to the scope of work specified in the TOR.
2. Previous experience in development assistance or related work for an international agency or donor organization is desirable;
3. Should possess sound knowledge of computer aided design software/applications and Microsoft office Package
4. Should have excellent command over English with proven communication and, presentation and negotiation skills
5. Should be capable of providing leadership, motivation and training to the staff and stakeholders
6. Previous Experience of working in the Maldivian construction industry will be an added advantage
7. Should have strong leadership, management and communication skills in presenting, discussing and resolving difficult issues and have ability to work efficiently and effectively with a multidisciplinary team.

6. DURATION OF WORK

The duration of the consultancy is **04 (four) months** from the commencement of the consultancy, with a likely extension subject to the performance appraisal and project time extension by the funding agency. The successful candidate must be available to commence the position in **September 2024**.



7. FACILITIES TO BE PROVIDED BY THE CLIENT

The Client shall make available to the Consultant, office space and other facilities such as computers at MCCEE. Local transport for official travel between Male', inter-Atolls and inter-islands and food and accommodations for the trips will be provided from the project.

8. PAYMENT

Successful individual will be paid an all-inclusive monthly fee of **MVR43,700.00** depending on experience and qualification

9. EVALUATION

Evaluation of candidates will be performed according to the criteria and scoring detailed below:

- Interview - (40%). A competency-based Interview will be conducted for shortlisted candidates, interview will consist of a presentation by the candidate and a panel interview based on the following:
 - Relevant experience
 - Sector Knowledge
 - Working Skills

Selection Criteria (100% weight)				
Desk Review (60 points)			Interview (40 points)	Total score 100 points
Must Meet requirement	Additional Advantage			
A Bachelor degree in civil or environmental engineering with a Master's Degree in a field related to the scope of work specified in the TOR with Minimum 07 years working experience in a field related to the scope of work specified in the TOR.	Previous experience in development assistance or related work for an international agency or donor organization is desirable. 2.5 points for each year for a maximum of 2 years.	Previous Experience of working in the Maldivian construction industry will be an added advantage 2.5 points for each year for a maximum of 2 years.		
50	05	05	40	100