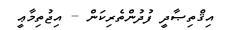


## **Ministry of Environment**

Male', Republic of Maldives.



# 

#### **TERMS OF REFERENCE**

## **Development of Environment Management Plan** for AA.Bodufolhudhoo IWMC upgrade

Project:	GEF UNIDO Environmentally Sound Management of Municipal and Hazardous Solid Waste to reduce emission of Unintentional Persistent Organic Pollutants (uPOPs) and Polychlorinated biphenyls
TO' 1	(PCBs) project.
Title:	Environment Management Plan Consultant
Main Duty Station and Location:	Male', Maldives
Mission/s to:	Development of Environment Management Plan for
	AA.Bodufolhudhoo IWMC upgrade
Start of Contract (EOD):	28 <sup>th</sup> July 2019
End of Contract (COB):	17 <sup>th</sup> August 2019
Number of Working Days:	20

## **Project Context**

The Government of the Republic of Maldives has received funding from United Nations Industrial Development Organization (UNIDO) for the "Implementation of an environmentally sound management of municipal and hazardous solid waste to reduce emissions from unintentional POPs and PCBs". The project has a component to provide waste management centres to islands in order to eliminate open burning of waste to reduce uPoPs emission from selected three islands of Maalhos, Mathiveri and Bodufolhudhoo, North Aril Atoll, Maldives.

The overall objective of additional activities under project is to provide more analytical capacities and data so that some prioritized action plans identified in the draft NIP would be more properly implemented by the government and other stakeholders. Through these additional activities, the government institute and the stakeholder will be able to better manage hazardous and municipal waste and reduce POPs and unintentional POPs with newly developed management plans and waste storage facilities. The project will contribute to the strengthening of the local capacities to properly address waste management and reduce uPOPs and PCB emission.

Accordingly, as implementing agency of the above project, the Ministry of Environment (ME) is seeking assistance of a qualified and competent individual consultant / consultancy firm for preparing Environment Management Plan (EMP) for the proposed upgrade of Island Waste Management System at AA.Bodufolhudhoo including the construction of Island Waste







Management Centre and establishing intra island waste collection, transport and waste management system.

The Ministry of Environment now invites eligible individual consultants / consultancy firms to submit their "Proposal" for providing the services. The Proposal should include a quotation, a work schedule, and information demonstrating that the consultant has the required qualifications and relevant experience to perform the services.

#### **Objectives**

The specific objective of this assignment is to ensure that the environmental safeguards have been taken into consideration for the upgrade of the IWMC and are in compliance with the existing relevant laws and regulations of the Maldives and safeguards policies applicable to the project.

The main objective of the IWMC is to improve solid waste management practices at AA.Bodufolhudhoo with implementation of following necessary areas related to waste management.

- 1. National Solid Waste Management Strategy and Policy
- 2. Regional Waste Management Systems
- 3. Island Waste Management Systems
- 4. Project Management

Preparation of EMP reports are only related to support development/completion of island level facilities for managing collection, segregation, on-site treatment and storage of residual waste, until its eventual transfer to common facility.

Therefore, following safeguard policies are applicable to the EMP 1. Environmental Assessment to ensure any environmental impact associated with project activities are identified in time and mitigated.

- 2. Natural Habitats is triggered because all of the country's islands are surrounded by coral reefs which are significant natural habitats. The overall project will not conduct any activities within designated protected areas and project interventions will facilitate in mitigating pollution and degradation of such ecosystems due to inappropriate Solid Waste Management.
- 3. The interventions leading to the construction and expansion of IWMC could lead to future in case finds of involuntary loss of vegetation and / or land taking as a small percentage of communities rely on surrounding land for agriculture and livelihood thus proper due diligence measures to tackle any in case finds have to be inbuilt in to project screening.

Furthermore, carryout Environmental Assessments are a legal requisite in the Maldives for development projects that may have any undesirable impacts on the environment. Schedule D of the Amendment 2 to the Environmental Impact Assessment Regulations (2012) provides a screening list of all development types for which a full ESIA is mandatory. However, the proposed development of IWMCs are small scale and therefore, is not listed under the Schedule D of the Environmental Impact Assessment Regulations (2012) of the Maldives. A screening process was followed for the subject project and the screening decision from EPA was to submit an EMP report and get approval prior to commencement of project activities.

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## **Scope of Works**

The assignment includes the preparation of the EMP report for the establishment of waste management system in AA.Bodufolhudhoo.

The individual consultant shall produce the EMP reports through consultative process in accordance with Environmental Impact Assessment Regulations (2012) enforced by EPA of the Republic of Maldives. Consultation shall be made with but not necessarily limited to; Ministry of Environment, Waste Management Corporation (WAMCO), AA.Bodufolhudhoo Council and where necessary the community (especially those directly impacted by the project). The tasks to be undertaken by the consultant / firm under this Terms of Reference are to be managed in close collaboration with the Project Management Unit (PMU) of GEF UNIDO UPOPs and PCBs at ME, and include but are not necessarily limited to the following:

Main Duties	Expected Result (s)	Expected Duration
Undertake the application process for the EMP works of the assignment.	Relevant laws, policy instruments and background information on EMP management reviewed	3 days
Undertake field observations and necessary stakeholder consultations and develop the EMP report as per the screening decision.	Survey reports	5 days
Submit draft EMP report to the PMU/ME.	1 <sup>st</sup> draft of EMP	2 days
Prepare the final report by considering the comments given by the PMU/ME.	2 <sup>nd</sup> draft of EMP	02 days
Submit the final EMP report (3 hard copies and 1 soft copy) to the PMU/ME. The report will be submitted to EPA and ME on behalf of the Consultant. Submission fee will be provided by PMU/ME.	Final draft of EMP	02 days
Acquire approval / decision statements from Environmental Protection Agency (EPA)	EPA feedback / decision	06 days
Shall furnish any request by EPA and the ME for any additional information during the EMP reviewing stage until a final decision is made by the EPA.		
Submit the decision statement and the approved EMP report to the PMU/ME.	Final EMP	









## **Eligibilty and Qualification**

The following staff member(s) will be required for the assignment

#### **Position**

Environment Management Plan (EMP) Consultant

#### **Oualification**

MinimumBachelor's Degree in Environmental Science / Environmental Management Engineering or related field with the minimum 05 years' experience in the field of environment and 03 years' specific experience in preparing ESIA, ESMP or EMP reports

## Quantity: 01

To be eligible for this assignment,

- 1. The individual consultant should submit full CV highlighting the criteria given below;
- a. Bachelor's Degree in Environmental Science / Environmental Management/ Environemtal Engineering or related field with minimum 05 years' experience in the field of environment and 03 years task specific experience in preparing EIA or EMP reports. Postgradute qualifications will be an added advantage. Copies of accredited academic certificates must ne submitted.
- b. EIA consultants should submit a copy of his/her EIA liecense
- c. Demonstate past experience in performing the services (description of similar assignment, value of such assignments and decision statements issued by EPA for completed assignments shall be furnished as evidence)
- d. Experience in conducting ESIA/ESMP or EMP for Waste Management Systems will be given preference.

Note: Assignments undertaken as lead consultant and support staffs or team member must be clearly defined.









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#### **Evaluation Criteria**

## **Consultant's Qualification and Experience [100]**

Bachelor's Degree in in Environmental Science/Environmental	[50]
Management/Environmental Engineering or related field	
5 years' experience in the field of Environment	[40]
2 years' experience in preparing ESIA / ESMP or EMP reports	[10]
Minimum Technical Score required to pass	[70]

Individuals achieving the highest combined weighted technical and financial score shall be selected as the successful consultant.

Sf = 100 x Fm/F, in which

denotes the financial score of the proposal under consideration; Sf

Fm is the price of the lowest price proposal;

denotes the price of the proposal under consideration.

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 (70%)

P% = the weight given to the Financial Proposal; (30%)

 $S = St \times T\% + Sf \times P\%$ 

Where S denotes the total combined weighted technical and financial scores

### **Financial Proposal**

The Consultant is required to submit a simple tentative work plan and proposed fee for the assignment. All travel expenses associated with the assignment (tickets, accommodation DSA) should be included in the financial offer (which needs to include (a) consultancy fees and (b) estimated travel costs).

## Reporting

The successful individual consultant will report to Miruza Mohamed, Director at Ministry of Environment. Upon completion of the final EMP reports, a total of 3 (three) hard copies and a digital copy to be emailed to aishath.liusha@environment.gov.mv, hassan.azhar@environment.gov.mv and environment@environment.gov.mv

#### **Contract Duration**

a) The duration of the assignment is 20 calendar days including the duration for the EMP approval and release of EMP decision statement.









#### Annex 1: Term of Reference for Environment Management Plan

## Objective and Scope of Preparation of Environmental Management Plan (EMP)

In order to ensure short and long term environmental impacts that would arise due to improvement and rehabilitation work (to be described in the first section based on the sub-project/activity), an EMP will need to be developed as per the scope presented below and in accordance with the ESAMF of the Project and the Environmental Impact Assessment Regulations (2012). The project GEF UNIDO UPOPs and PCBs should be reviewed and used as the basis for baseline information. Field level verification should be conducted prior to the preparation of the EMPs:

1. Introduction: Briefly describe the major components of the proposed project. Provide a brief history and justification of the project and describe how the proposed development will improve on the current arrangements for waste management in the project area. Provide details of the proponent, and institutional arrangements for implementation and operations of the proposed development, and environmental and social issues of similar projects. Include desktop studies and review of similar ESMPs/ ESIAs and EMPs. The introductory chapter should also cover the legal aspects related to the project, which is detailed below.

Legislative and Regulatory Considerations: Outline the project's consistency with the existing national, state, regional and local planning that apply to the project include reference to relevant statutory and non-statutory plans, planning policies, guidelines, strategies and agreements as appropriate. Outline the pertinent policies, regulations and standards governing project location, land use, environmental quality, and public health and safety. This section does not have to be exhaustive, but should cover information on legal requirements specific to the project, such as permits to be taken under the Environmental Impact Regulations (2012) and the land allocation process followed with MLSA and other relevant institutions. Additionally, the status of Island Waste Management Plan (IWMP) should be described, indicating whether the plan has been prepared, under review or approved, and highlighting any challenges faced by the council in plan preparation and approval (if any).







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- 2. Study Area: Submit an A3 scaled plan with indications of all the proposed land infrastructures. Specify the boundaries of the study area for the EMP highlighting the location and size of the proposed construction. The study area should include nearby environmentally sensitive areas. Justification for site selection shall be provided. Relevant developments in the area must also be addressed including residential areas and all economic ventures and cultural sites.
- 3. Project Description: Provide a full description and justification of relevant parts of the project, using maps at appropriate scale where necessary. The following should be provided including all inputs and outputs related to the proposed activities shall be justified.
- a) Provide a clearly labelled concept design and scaled site plan of the project boundary.
- b) Submit a detailed description of the components of the project and how the project activities will be undertaken.
- c) Describe the construction phase components of the project including but not limited to site clearance, collection bay area, compost slab, groundwater pump room, leachate collection tank and perimeter walls.
- d) Describe the operational phase components of the project including but not limited to waste collection services, method of storing, composting method, leachate management, arrangements for the removal of inorganic waste from the IWMC and clean-up of existing small open dump sites.
- e) Include a project schedule.
- f) A matrix of inputs and outputs related to the project activities shall be included and described separately for construction and operational phase.
- 4. Existing Environment: The existing environment study will not require detailed data collection and survey, analysis techniques since this is an EMP and not a full ESIA study. However, the following information must be provided based on field observations and consultations with the island council and the community. Photographic evidence should be provided where appropriate.
- a) Current Waste Management Practices: Describe how waste is managed at present. This should include information about the existing open dump sites (if any) and method of disposal.
- b) Unassigned Waste Dumping: Describe the overall cleanliness of the island and whether unassigned waste dumping is observed.
- c) Project Site and Access Road: Describe the condition of the ground and soil of the project site. Provide information related to distances between residential areas, commonly used public places and nearest distribution box. Additionally, information related to the access road and route to waste unloading area shall be provided.
- d) Coastal Modification / Erosion: Provide information related to any coastal modifications undertaken in the island in recent history and the side of the island subjected to coastal erosion. Indicate whether any coastal erosion is noticed from the shoreline closest to the proposed development.
- e) Vegetation present at the site: Describe the number and type of vegetation present at the project site including scientific and local names.
- f) Protected Areas and Environmentally Sensitive Sites: Provide information on the environmentally protected and sensitive areas that exists close to the proposed development.



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- 5. Impact Identification: The EMP report should identify all the impacts, direct and indirect, during and after construction, and evaluate the magnitude and significance of each. Particular attention shall be given to impacts associated with the following:
- a) Physical / Chemical: describe impacts on groundwater, soil, noise, air and waste.
- b) Biological: describe impacts on vegetation and fauna.
- c) Sociological / Cultural: describe impacts of road closure, health and safety and sociocultural conflict.
- d) Economic: describe any potential benefits or losses to the economy.

The methods used to identify the significance of the impacts shall be outlined. One or more of the following methods must be utilized in determining impacts; checklists, matrices, overlays, networks, expert systems and professional judgment. Justification must be provided to the selected methodologies. The report should outline the uncertainties in impact prediction and also outline all positive and negative/short and long-term impacts. Identify impacts that are cumulative and unavoidable.

**6. Mitigation and management of negative impacts:** Identify possible measures to prevent or reduce significant negative impacts to acceptable levels. These will include both environmental and socioeconomic mitigation measures. Mitigation measures to avoid or compensate habitat destruction caused by land clearance will have to be considered. Measures for both construction and operation phase shall be identified. Cost the mitigation measures, equipment and resources required to implement those measures. The confirmation of commitment of the developer to implement the proposed mitigation measures shall also be included. An Environmental management plan for the proposed project, identifying responsible persons, their duties and commitments shall also be given. In cases where impacts are unavoidable arrangements to compensate for the environmental effect shall be given.









**7. Development of monitoring plan:** Identify the critical issues requiring monitoring to ensure compliance to mitigation measures and present impact management and monitoring plan for vegetation clearance, spillage assessment and grievance redress mechanism. Detail of the monitoring program including the physical and biological parameters for monitoring, cost commitment from responsible person to conduct monitoring in the form of a commitment letter, detailed reporting scheduling, costs and methods of undertaking the monitoring program must be provided.

The monitoring programme should give details of the following;
☐ Monitoring indicators to be measured for evaluating the performance of each mitigatory measure (for
example national standards, engineering structures, extent of area replanted, etc.).
☐ Monitoring mechanisms and methodologies
☐ Monitoring frequency
☐ Monitoring locations
☐ Cost of monitoring
☐ Responsible party

- **8.** Grievance Redress Mechanism (GRM): Describe the proposed grievance redress mechanism of the project developed by the PMU and the responsible person in each tier.
- **9. Stakeholder consultation:** Identify appropriate mechanisms for providing information on the development project and the GRM to relevant stakeholders. Consultations must be undertaken with the island council and designated waste management focal point of the island on the execution of the GRM. The report should include a list of people/groups consulted, their contact details and summary of the major outcomes.
- **10. Presentation-** The EMP report, to be presented in digital format, will be concise and focus on significant environmental issues. It will contain the findings, conclusions and recommended actions supported by summaries of the data collected and citations for any references used in interpreting those data. The EMP report will be organized according to, but not necessarily limited by, the outline given in the Environmental Impact Assessment Regulations (2012).



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