

## Ministry of Environment, Climate Change and Technology

Republic of Maldives

# Support vulnerable communities in Maldives to manage climate change-induced water shortages

## MONITORING AND EVALUATION OFFICER (M&E)

#### **TERMS OF REFERENCE**

## A. PURPOSE

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 joint Government of Maldives and UNDP 5-year USD 26 million project to "Support vulnerable communities in Maldives to manage climate change-induced water shortages" 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 an integrated water supply system to provide safe water to vulnerable households;
- b. Introduction of decentralized and cost-effective dry season water supply systems;
- c. Groundwater quality improved to secure freshwater reserves for long term resilience.

The proposed adaptation solution is to scale up the use of an integrated water supply system that will bring three primary sources of water (rainwater, groundwater and desalinated water) into a least cost delivery system that is able to maintain service levels in the face of climate change related pressures. A paradigm shift will be achieved by addressing the main barriers to implementing integrated water supply systems (cost recovery; management capacity; and institutional mandates, coordination and policy direction).

The project is one of the first projects to be funded through the Green Climate Fund and is implemented by joint partnership between Ministry of Environment, Climate Change and Technology and UNDP from 2016 through to 2020.

The Government of Maldives through the Ministry of Environment, Climate Change and Technology (MECT) is seeking a full time **Monitoring and Evaluation Officer** (**M&E**) responsible for the development and implementation of a monitoring and evaluation strategy and framework for the project.

#### B. BACKGROUND

The unique geographic attributes of the Maldives make its water resource situation both complex and diverse. With widely ranging populations numbers on the islands, even basic water and sanitation service must be tailored to local resources and population needs. Management of the limited water resources is complicated due to the small catchment areas for rainfall, limited rainwater and groundwater storage capacity, long dry seasons, and the susceptibility of groundwater aquifers to pollution and salinity intrusion.

The outer islands of the Maldives already experience drinking water shortages during the dry season. These shortages have had significant adverse human, environmental and social impacts on the outer island communities. 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. A sea level rise and decreasing rainfall amounts will considerably compound current water stress in the country. The Government faces constraints in responding to the challenge at hand without assistance, especially in the context of anticipated impacts of climate change.

As water security is closely bound to rainfall and sea level rise in Maldives, the adaptation scenario will demand: (i) the rainfall collection capacity to increase at least threefold; (ii) groundwater controlled extraction and replenishment to keep water table levels high in order to buffer away saltwater intrusion; and (iii) increased water production capacity through desalinization (Reversed Osmosis – RO technology), as to secure sufficient back up resource during the extended dry periods for household supply and timely distribution.

In response to this challenge, the proposed **project objective** is to deliver safe and secure freshwater to 105,000 people in the 49 target 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 project will provide sufficient water to supply the potable water needs of island residents year round for a 35 year design period to 2050. Project finance will be used to establish an integrated water resources management system that integrates the three main sources of water (rainwater, groundwater and desalinated water) into a least cost delivery system and which is able to maintain service levels against a context of rainfall variability and sea level rise and also includes measures for **groundwater quality recovery** to secure freshwater reserves in the long term.

Ultimately, the project will achieve an uninterrupted water supply on the islands that currently experience a 90 day chronic water shortage during dry season and depend on transported water from Malé, which is an extensive, overlong and costly operation. As a result of the project, **49 priority islands** will have **increased rainwater collection capacities**, out of which, **4 bigger islands** will additionally have water production systems of **water desalination** (Reverse Osmosis – RO water production plants), that will secure sufficient water production capacity enabling a decentralized and timely water distribution across all northern outer atolls during the extended dry periods, when shortages may occur.

Water stress alert information based on **forecasted meteorological information** will feed into the **Standard Operating Procedures** (**SOPs**) for system management, thereby protecting lives and livelihoods from environmental risks associated with climate change. This will also feed into strengthening the Meteorological - MMS services on reaching out to the communities actionable early warning information, and preparing the water utilities, island councils and the communities to receive and act on such information. The system will achieve cost effectiveness in service provision through **effective management of water resources** and the use of renewable energy and locally appropriate technologies. Alongside the system design will be a capacity development workstream designed to obtain the support and ownership from communities, which is necessary for financial sustainability of the system, as well as the **capacity development** of the State Utilities to manage service delivery, and of the decentralized authorities and central government to provide an enabling environment for sustainability and scale up.

## C. OBJECTIVES OF ASSIGNMENT

The objective of this assignment is to set up evaluation and monitoring strategy and framework to evaluate the implementation of activities of the project to ensure all outputs are delivered smoothly and on time.

#### D. OVERALL RESPONSIBILITY

The overall objectives of the assignment are to:

- 1) Develop a Monitoring and Evaluation Strategy and Framework document to guide the overall monitoring and evaluation activities under the Project.
- 2) Develop monitoring and evaluation action plans for each of the components to guide the implementation of monitoring and evaluation activities under the Project.

### E. SCOPE OF WORKS

Major tasks will include, but not be limited to the following:

- 1) Develop a Monitoring and Evaluation (M&E) Framework designed to assess the effectiveness, impact and sustainability of the Project. The M&E Framework should identify, but is not limited to, the following:
- Key target groups to be involved and description and rationale for the selection of informants/sampling program to be included in the M&E program;
- Key indicators of Project activities, impact and sustainability that will define the data that needs to be collected.
- Data that needs to be collected (primary, secondary etc data requirements), and details of activities to be undertaken to collect that data (such as, but not necessarily limited to, baseline, quarterly, midterm and final evaluations etc)
- The key tools and techniques (both qualitative and quantitative) and a description and rationale for the selection of qualitative and quantitative methods to be employed for monitoring and evaluation;
- Facilitate the creation and maintenance of relevant database and similar software related to data collection and management for the M&E efforts

- Time scheduling and human and financial resource needs over the monitoring and evaluation including a budget sketch for the duration of the project
- Drawing attention of supervisor to exceptional items, deviations or high positive impact on results framework;
- Liaise with programme team and feedback relevant data;
- Responsibilities for data collection, reporting, compiling and analysis.
- 2) Develop monitoring and evaluation action plans in accordance with the Framework for each Project component. The actions plans should include, but not necessarily be limited to:
- The target groups, data needs, tools and techniques to be used to monitor and evaluate activities under each component;
- Component specific work plans for each component including but not necessarily limited to time scheduling and resources needed to carry out the monitoring and evaluation action plan; and
- Component specific standard reporting formats for monitoring and evaluating activities and for reporting quarterly operational performance of each component (if different).
- 3) Provide training and information sessions on target group identification, data type, data collection methodology and techniques proposed in the monitoring and evaluation Framework and component specific action plans to the component coordinators (3 staff), and, if/as necessary, other PMU staff.
- Any other tasks as assigned by the Project Manager

## F. QUALIFICATIONS AND EXPERIENCE

To be eligible for consideration for this position the candidate must meet the following criteria:

- 1. Bachelors Degree in international community development, project management or Accounting and finance.
- 2. Minimum 10 years working experience in the development sector or development of monitoring and evaluation programs in the development sector.
- 3. Minimum 4 years working experience in developing and implementing monitoring and evaluation programs in the development sector including water and sewerage sector.
- 4. Minimum 3 years in Development of Monitoring and Evaluation (M&E) Frameworks designed to assess the effectiveness, impact and sustainability of donor funded projects.
- 5. A demonstrated ability to rapidly acquire knowledge about the Project, project objectives, delivery mechanisms, performance indicators, and operation performance monitoring and evaluation requirements;
- 6. Fluency in written and spoken English and excellent interpersonal skills are essential.
- 7. A high level of computer literacy is required. Familiarity with programs like Microsoft Office including Word, PowerPoint, Excel and Microsoft Project Office as required.

The successful individual must be willing to work for extended periods without direct supervision and travel routinely to islands within the catchment.

In addition, the individual's reputation of integrity and impartiality routed in independent from third parties shall be considered.

The short-listed candidate will be requested to participate in personal interviews and submit the names and contact details of personal referees who can attest to their ability.

The successful candidate must understand the objectives and delivery mechanisms of the projects portfolio. He/she must be willing to work in a team, be flexible to emerging or changing conditions, and undertake initiative in his/her broad field of actions.

#### G. REPORTING REQUIREMENT

- 1. Report directly to the Project Manager (PM) on all aspects of Project Management throughout the duration of the contract unless otherwise advised by the Client.
- 2. The Monitoring and Evaluation Officer should report to work on week days from 0800 1600 hours other than public holidays and provide services to the Client for an average of 40 hours a week. Remuneration for less than 8 hours work per day will be on a pro-rate basis and is required to work additional hours to complete the assigned tasks on a daily basis.
- 3. The Monitoring and Evaluation Officer shall ensure that all the covenants and outputs are delivered on time, in accordance with the requirements of Client and respective donor agencies.
- 4. The Monitoring and Evaluation Officer is required to report to work in official attire.

#### H. SCHEDULE FOR THE ASSIGNMENT

Duration of the assignment is  $\underline{\mathbf{6}}$  months from the commencement of the works. The successful candidate is expected to commence the services in January 2023.

## I) PAYMENT

Monthly Allowance in Maldivian Rufiyaa at the rate of MVR 28,800.00 (Maldivian Rufiyaa Twenty-Eight Thousand Eight Hundred)