

# **Terms of Reference**

## **Development of an Online System for Managing Project Monitoring Reports of the National Climate Change Adaptation Plan of Sri Lanka**

Development under Consultancy Services to Strengthen the Process and Capacity of Climate Information Sharing for the Implementation of the National Adaptation Plan of Sri Lanka

### **1. Background**

Project Monitoring Reports (PMR) are crucial in sustainable development as they track progress, ensure accountability, and identify challenges and solutions such as evidence-based decision-making to enable adaptive management and optimization of resource allocations. These project monitoring reports also promote learning, knowledge sharing, and stakeholder engagement, leading to valuable insights into how well a project is meeting its objectives, staying on schedule, and adhering to its budget. Drawing from the guidelines of the United Nations Framework Convention on Climate Change (UNFCCC) and the Organization for Economic Corporation and Development (OECD), Sri Lanka's National Adaptation Plan (NAP) adopts Policy Coherent Sustainable Development (PCSD) by intensifying project monitoring reports across all project timelines at national and sectoral levels. An online system to manage project monitoring reports (progress monitoring of actions) is crucial for the sustainable implementation of the NAP.

The International Water Management Institute (IWMI) is implementing an assignment to strengthen the process and capacity of climate information sharing for the implementation of the Climatic Change National Adaptation Plan of Sri Lanka (NAP). This assignment is part of the project to "Strengthen the Process and Capacity of the Implementation of the National Adaptation Plan of Sri Lanka" which is implemented by the Global Green Growth Institute (GGGI) in close collaboration with the Climate Change Secretariat (CCS) of the Ministry of Environment (MOE). As part of its consultancy services, IWMI proposes an online Report Management System (RMS) for collecting, retrieving, and sharing project monitoring reports of NAP actions in an organized central archive with provisions for user-friendly secure access to the information. The proposed system will not only enable assessment of the progress of a specific sector or project but will also allow the NAP to streamline both sectoral and national-level actions to collaborate at grass-root levels with local communities with transparency and integrity.

### **2. Rationale and Scope of the Work**

The proposed Project Monitoring Report Management System (PMR-MS) is conceptualized as a multi-project, multi-user, and multi-view system that deals with project monitoring reports through which the status of a project can be monitored at various stages of the NAP timeline. This facilitates visualizing of progress monitoring of a project by multiple users with different security levels of access. The PMR-MS intends to provide status updates of projects/activities

through a collection of ordered project reporting with associated metadata and detailed reports in a unified database and file system. It enables capturing the progress at various levels such as adaptation action plans and/or projects themselves interpreted by the PMRs. The structure of the PMR-MS is to be finalized by the GGGI and the CCS.

## 1) Rationale

The proposed PMR-MS maintains a resource model that consists of uploading of project monitoring reports and associated project/activity metadata along the timeline of projects and entered into the system by the respective project stakeholders. According to the NAP, the specific action plans normally implemented through programs/projects, are derived from the NAP progress monitoring guidelines as articulated in the National Adaptation Plan for Climatic Change Impacts in Sri Lanka 2016-2025 (NAP). Based on these guidelines, the CCS has outlined the structure for PMR-MS for each sector and cross-cutting area. The PMR-MS shall complement the ongoing NAP revision. In summary:

- The existing NAP has identified 9 sectors and 10 cross-cutting themes for which the adaptation needs, and adaptation options are clearly identified. The sectors and cross-cutting areas are currently under revision.
- The revised sectors and cross-cutting themes will be assigned to responsible agencies/institutions for each adaptation option/action plan with defined key performance indices (KPIs).
- The PMR-MS is to be updated by responsible agencies/institutions according to the format prescribed by the CCS. The PMR-MS essentially specifies the information below from the NAP perspectives for tracking the progress of adaptation situations:
  - a) PMR-MS ID (serial number)
  - b) Date of reporting
  - c) User/institute (Lead agency/supporting agencies)
  - d) Sector/Cross-cutting area
  - e) Adaptation need
  - f) Adaptation option
  - g) Activities
  - h) KPI values (progress)
  - i) Project/activity metadata (Project/activity name, description, budget, etc.)
  - j) Related project/activity report documents (quarterly reports, activity-based reports, etc.)
  - k) Remarks and comments
- The above information fields may change with NAP revisions and PMR-MS should incorporate flexibility to add/remove/edit the above fields in project monitoring reports at the administrator level.
- The above parameters may be automatically extracted from PMR-MS document or entered as supplementary metadata information using web forms attached to each system upload.
- Additionally, the system will facilitate dynamic generation of project/activity reports along the project timeline uploaded by multiple project stakeholders across multiple sectors and cross-cutting themes. A project monitoring report will refer to single or multiple project reports and may be linked with multiple instances of associated

project metadata. Additionally, PMR-MS shall record/report partial achievement of actions.

The stored resources in the PMR-MS may be accessed by various stakeholders to capture progress at different levels of observation as well as to capture the overall NAP progress using KPIs. The system will also serve as a persistent project report archive as well.

## 2) Scope of Work

Goven below are some non-exhaustive guidelines by IWMI on the specifications of the RMS to be implemented. The vendors are advised to propose innovative solutions using state-of-the-art technologies and tactical options ensuring Agile Application Development.

### a) System Components

Front-end web server	A Secure web server that facilitates front-end user interface for PC and smartphone users through essentially responsive views.
Back-end web server	For implementing all types of administrative back-end system management operations.
Information Database	Relational database for hosting data and metadata related to projects, users, institutions, and reports.
Report Database	Secure file store for hosting project reports with appropriate security enforcements (indexed file archive).

### b) Data overview: Structure of PMR-MS

The PMR-MS is essentially objective-driven; indicate the achievement of a certain project activity belonging to an adaptation need of a certain vulnerability sector by its KPIs. An important but non-exhaustive list of data abstracts of the proposed PMR-MS for managing project/activity monitoring is shown below with system-level requirements to support flexible system configuration and future expansions:

Data Abstract	Description	Requirement at data management level
(A) Key Sectors	<ul style="list-style-type: none"> <li>○ A key vulnerability sector will represent the top node of climatic change adaptation in the NAP. The NAP has identified 9 key sectors with key priority areas for implementing climate change adaptation in Sri Lanka. The sectors areas are currently under the NAP revision.</li> </ul>	<ul style="list-style-type: none"> <li>○ Master records will be needed to register sectors and associated important metadata such as key priority areas.</li> <li>○ Record add/edit/delete interface to be provided for run-time operations.</li> </ul>
(B) Cross-cutting areas	<ul style="list-style-type: none"> <li>○ In addition to key vulnerability sectors, the NAP has identified 10 crosscutting areas to be responsible for adaptation needs not covered by the sectors. The cross-cutting areas are currently under the NAP revision.</li> </ul>	<ul style="list-style-type: none"> <li>○ Master records will be needed to register cross-cutting areas and associated important metadata such as key priority needs.</li> <li>○ Record add/edit/delete interface to be provided for run-time operations.</li> </ul>
(C) Adaptation needs -> Adaptation options -> and Action plans	<ul style="list-style-type: none"> <li>○ For each key sector and cross-cutting area the NAP has identified a hierarchy of adaptation needs -&gt; adaptation options -&gt; and action</li> </ul>	<ul style="list-style-type: none"> <li>○ Master records will be needed for recording and associating of adaptation needs -&gt; adaptation options -&gt; action plans for each sector and cross-cutting area.</li> </ul>

	plans. These abstracts are also currently under the NAP revision.	<ul style="list-style-type: none"> <li>Record add/edit/delete interface to be provided for run-time operations.</li> </ul>
(D) Responsible Agents	<ul style="list-style-type: none"> <li>NAP has identified responsible agents to implement each adaptation option -&gt; Action plan combination. The assignment of agents is subject to change under the current NAP revision.</li> </ul>	<ul style="list-style-type: none"> <li>Master records for registering responsible agents with multiple adaptation options and action plans will be required. The agents may belong to different organizational, geographic/hierarchical settings to be considered in data associations.</li> <li>Record add/edit/delete interface to be provided at run-time operations.</li> </ul>
(E) KPIs	<ul style="list-style-type: none"> <li>NAP- has identified key performance indices for the performance evaluation of each action plan. This will contain the target goal settings and achieved values at different levels of the adaptation hierarchy from (A) ~ (D). The KPIs can change during progress updating on a rolling basis. These will change during the NAP revision</li> </ul>	<ul style="list-style-type: none"> <li>Master record for registering KPI definitions for each adaptation option -&gt; Action plan.</li> <li>Record add/edit/delete interface to be provided at run-time operations.</li> <li>Run-time input interface is required to set KPI goal settings for the elements in the climatic change adaptation hierarchy. (i.e. Sector -&gt; Adaptation Need -&gt; Adaptation Options -&gt; Action Plans -&gt; Responsible agents)</li> </ul>
(F) Projects	<ul style="list-style-type: none"> <li>Actions are implemented via projects by single or multiple responsible agents.</li> <li>Projects/activities normally contain multiple data hierarchy views from different contexts, i.e., Sector-based, agent-based, institutional hierarchy-based etc.</li> <li>Additionally, projects are also represented by multiple milestones and activities along the project timeline.</li> <li>At important stages of its timeline project/activity progress will be supported by using certain reports that will comply with input from (A) ~ (D), other documents and associated metadata.</li> </ul>	<ul style="list-style-type: none"> <li>Master record for registering project templates to ease the data entry at run-time is required.</li> <li>Project add/edit/delete interface to be provided at run-time for project entry.</li> <li>Suitable run-time interfaces are required to enter project monitoring reports, project reports, and associated metadata as in (G) and (H)</li> </ul>
(G) Project Monitoring Reports	<ul style="list-style-type: none"> <li>Project/activity Monitoring Reports are structured Excel/csv documents prescribed by CCS for progress monitoring of NAP.</li> <li>A report can be uploaded to the system as a progress report of a certain adaptation option or can be uploaded as a progress instance of a certain activity plan belonging to a specific project.</li> <li>A report will include information (A) ~ (E) as key elements of progress and other associations such as projects, project reports and metadata.</li> </ul>	<ul style="list-style-type: none"> <li>Master records required for registering project monitoring report template for each cluster and cross-cutting areas.</li> <li>Add/edit/delete interface to be provided at run-time for project monitoring report template management.</li> <li>Run-time input interface for uploading project monitoring reports.</li> <li>A suitable web input interface or automatic means for extraction of project monitoring metadata from (A) ~ (E).</li> </ul>

(H) Project reports	<ul style="list-style-type: none"> <li>○ Projects/activities are represented by multiple milestones and action plans along the project/activity timeline.</li> <li>○ At important stages of its timeline project/activity or progress reports and metadata will be entered into the system.</li> </ul>	<ul style="list-style-type: none"> <li>○ Master record for registering project templates to ease the data entry at run-time.</li> <li>○ Project add/edit/delete interface for project template management.</li> <li>○ Run-time input interface uploading project reports and other metadata associated with projects.</li> </ul>
(I) Users, institutions, and geographical identities.	<ul style="list-style-type: none"> <li>○ User information is an essential data abstract to provide interaction to the system via user interfaces.</li> <li>○ Users belong to one or many institutions. An institution is identified by its position in the institutional hierarchy.</li> <li>○ Users, Institutions and projects can also belong to a geographical region identified by provinces and administrative districts in Sri Lanka</li> </ul>	<ul style="list-style-type: none"> <li>○ Require master record templates for user hierarchies, institutional hierarchies, and geographic demarcations.</li> <li>○ Require add/edit/delete interface for the above templates.</li> <li>○ Run-time input interface for registering users, and institutions with security privileges to information.</li> </ul>

Ref: NAP: National Adaptation Plan for Climate Change in Sri Lanka, 2016-2025

### c) System Functions

Given below is a non-exhaustive list of important functional requirements to be considered in developing the PMR-MS.

Functional requirement	Description
Entering monitoring/progress data	User-friendly interface for uploading PMR-MS with various data associations. As automated data extraction of PMR-MS will highly be dependent on the explicit and stable nature of their formats, an optional web-based metadata input interface is highly recommended to record important project monitoring metadata.
Entering Project Reports	Users with different institutional attachments may enter project/activity progress/reports at certain milestones. All data and information must be securely archived with suitable version controlling and related project milestone metadata must be attached to each project report.
Dashboard for multiple user levels	A User-friendly dashboard interface is required to visualize NAP progress at various levels based on user privileges. The dashboard should support progress monitoring at various levels such as sectoral overall progress, progress of adaptation needs of a specific sector, action plan progress by a certain agent or a single project progress etc.
Generate progress reports	System function for generating informative progress reports at various adaptation, geographic and project levels is required. Essentially interactive web-based reports are required to be exported to shareable/printable formats (e.g. PDF)
Search, visualization, downloading, and sharing of project reports	Functions are required to search for reports, visualize the status of projects/activity based on reports, and download, and share reports in a secure manner. The method of accessing reports may vary from simple downloads to password-protected compressed download packages.
Master data records	Master data records explained in the data overview section must be filled with sample test data at the time of testing of PMR-MS. Suitable admin-level interfaces are required to master data entry and template management.
Maintenance functions	Regular system maintenance including garbage collection, backups, updates and upgrades, belong to this category and are mostly

	implemented by designated users assigned by the admin or super admin.
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### 3. Tender Proposal structure

IWMI expects the vendor to provide state-of-the-art technologies and innovative solutions to meet the project requirements. The vendors are requested to submit the following documents:

1. Description of the company/firm
2. Concept approach to Implementation (Background, Objective, working methodology, deliverables, maintenance and security, platform deployment, technology transfer, work plan)
3. Provide clear evidence of your past assignments that align with the current requirements.
4. Financial proposal (total cost, payment schedule, milestone/activity-wise cost break-down structure, human resource-wise cost break-down, module-wise cost break-down and maintenance support for three years)

\*Please mention in the proposal if the firm requires an external consultant/institute to fulfill the assignment.

### 4. Method of selection

The selection will be made based on the merits of the technical and financial proposals. An expert panel will review the proposal. Selected vendors may be requested for additional clarification at the final stage of the selection. The selected vendor will be working with GGGI/IWMI, relevant government agencies including the Climatic Change Secretariat (CCS) to comprehensively implement the PMR-MS.

The evaluation criteria of the proposal are as follows:

Technical proposal (65 Points)

- Understanding the ToR (10 points)
- Proposed Methodology (25 points)
- Adequacy of the proposed work plan (15 points)
- Specific experience of the consulting firm related to the proposal (10 points)
- Overall experience of the consulting firm (05 points)

Financial proposal (35 Points)

- Adequacy of the explanation of cost (25 points)
- Proposed maintenance and support strategy (10 points)

Based on the scoring of both technical and financial proposals, a firm will be selected and awarded to implement the RMS.

### Important date

Last date of submission: 31 October 2023