

Terms of Reference

Development of Multi-hazard Information and Dissemination Platform (MIDP) for Sri Lanka

Background

IWMI proposes the use of a state-of-the-art geospatial infrastructure that will enable all major natural hazard mapping which will be accessible by relevant agencies for multi-institutional coordination in response to climate shocks. The proposed infrastructure will provide easy access to the latest natural hazards (floods, droughts, landslides and cyclones) data and maps via the Internet. At the same time, an enhanced climate information sharing procedure aims to bring multi-institution collaboration and upgrade the current status of delivery of climate information services across multi-institutions considering specific needs of climate services across various sectors. IWMI hopes to focus on a province prone to frequent climate extremes (e.g., the Southern Province) in consultation with the Climate Change Secretariat and other stakeholders to pilot the enhanced climate information sharing procedure.

Scope of the work

The proposed operational and dynamic Multi-hazard Information and Dissemination Platform (MIDP) primarily receives inputs from multi-institutions, namely Department of Meteorology (DOM), Department of Irrigation (ID), National Building Research Organization (NBRO), Disaster Management Center (DMC) etc., and the application will feature a geospatial data viewer and provide other digital knowledge products/maps, e.g., topography, land use land cover, population, agriculture, urban and rural density etc., with freely available program tools. Further, the system should be capable of developing knowledge products by integrating the early warning information provided by various stakeholder agencies including the DOM, ID, DMC, NBRO etc., and disseminate the climate/weather information through various communication channels to end-users including fishermen, farmers, the general public, Grama Niladaris (GNs) and Divisional Secretaries. The system should also facilitate early warning detection through the integration of global and regional short, medium and seasonal forecast information and provide access to extensive information on hazard monitoring and forecasting using various satellite data and field observations. Figures 1 and 2 provides the basic concepts of the Multi-hazard Information and Dissemination Platform (MIDP) including climate information sharing approaches (Figure 2).

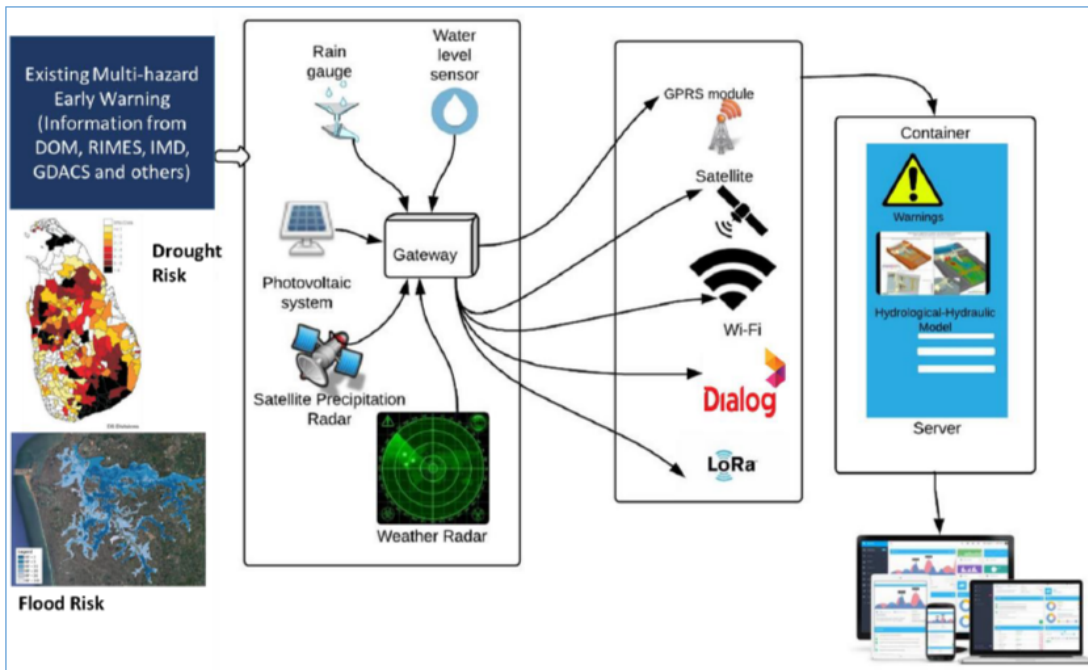


Figure 1: Framework for Multi-hazard Information and Dissemination Platform (MIDP)

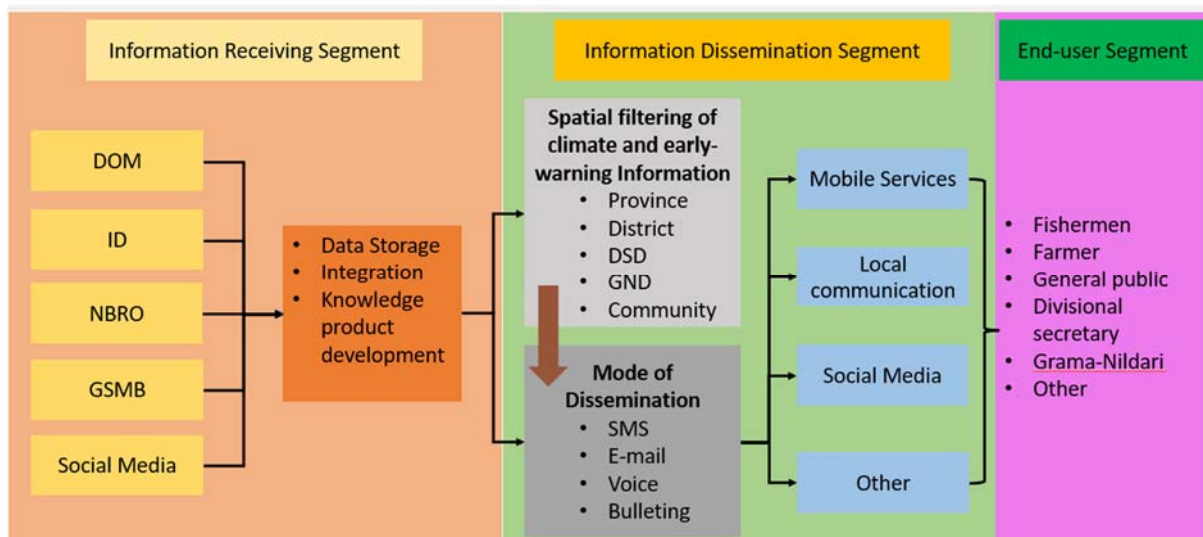


Figure 2: Climate Information Sharing Procedure and Early-warning dissemination

The following are the proposed features of the Climate Information Sharing Procedure. However, the vendor can also propose innovative solutions to strengthen the proposed framework.

- Establish a joint platform to link providers of weather and climate services with users.
- Ensure the facilitation of sharing of views and ideas on product improvement to fit the users' needs (co-design) and link information providers and users.
- Ensure the provision of quick, timely, accurate, broadly disseminated, and understandable information, as well as high-quality services.
- Gather, store and exchange the data from various sources such as responsible institutes, field data, "big data", satellite data, crowdsourced data, and information gathered through social media channels.

- Pilot a case study with a user-driven design and testing of information and communications technology (ICT)-based digital (smartphones and apps) infrastructure.
- Conduct evaluation of the climate information sharing procedure to various end users on the usability of the information, tools, and understanding of forecast uncertainty.
- Facilitate a coproduction process with targeted training and monitoring to improve access to climate information and the use of weather and climate forecast information by various end users.
- Develop the upscaling framework from the pilot province to the entire country to promote cross-institutional, sectoral, and regional/ provincial climate adaptation and resilience building.
- Develop the platform using open-source programs and be hosted either on the cloud or physical servers.
- Develop the platform to enable high-level visualization of both spatial and non-spatial timeseries data

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 about 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.

Method of selection

Selection will be made based on the merit 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 CGIAR/IWMI, relevant government agencies including the Information and Communication Technology Agency (ICTA) and telecom vendors within 2022 and 2023 to comprehensively implement the MIDP and the Climate Information Sharing Procedure.

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 MIDP and the Climate Information Sharing Procedure.