



Terms of Reference

IMPROVING CLIMATE DATA AND INFORMATION MANAGEMENT PROJECT

CONSULTANCY TO UNDERTAKE THE DEVELOPMENT OF TARGETED EARLY WARNING MESSAGING FOR VULNERABLE GROUPS

1. BACKGROUND

The impacts of climate variability and change pose a serious threat to the social and economic development of Jamaica. These impacts, which manifest in damage and loss to economic, social and environmental assets, also threaten life and livelihood. Much of the impacts are associated with changing weather, more frequent and intense storms, more frequent and intense flooding and drought; sea level rise that is accelerating coastal erosion and threatening infrastructure; saltwater intrusion to coastal aquifers that threatens freshwater supplies; increased air and sea surface temperatures that influence hurricane severity across the Caribbean region (State of Jamaican Climate 2015).

It is projected that the impacts will be exacerbated in the coming years, threatening infrastructure, energy production, economic activity, agricultural productivity, coastal ecosystems and reefs, fisheries, industrial production, urban and rural development, community livelihoods and well-being.

Downscaled climate models described in the 2015 “State of Jamaican Climate, Information for Resilience Building” report indicate that an increase in climate variability will likely result in:

- a) the mean temperature increase by 0.85°-1.80°C by the 2050;
- b) the 2030s being up to 4% drier, and the 2050s up to 10% drier;
- c) 2% less rainfall in the annual mean by the mid-2020s;
- d) an 80% increase in the frequency of Saffir-Simpson category 4 and 5 Atlantic hurricanes over the next 80 years;

Consequent on the projections cited above; both the incidence and impact of such events are anticipated to increase with particularly negative impact on vulnerable communities and persons with resource dependent livelihoods.

For vulnerable populations, such as children, low-income people, persons with disabilities, pregnant women and the elderly, the health effects of hazards and disasters exacerbated by climate change can be especially devastating. Such populations often are more susceptible to disease, have pre-existing health conditions or live in areas that do not promote good health or well-being.

Within this context, Early Warning Messaging (EWM) is central to limiting the loss of lives and livelihoods. EWM involve a series of organized surveillance mechanisms or actions that collect information on potential hazards in a given location, trigger timely, coordinated responses which are understandable to those at risk and provide guidance on how to act upon the warnings. To be effective, EWM needs to actively involve the people and communities at risk from a range of hazards, facilitate public education and awareness of risks, disseminate messages and warnings efficiently and ensure that there is a constant state of preparedness enabling early action.

2. CONTEXT

The Improving Climate Data and Information Management (ICDIM) Project funded by the Pilot Programme for Climate Resilience (PPCR) intends to develop targeted EWM for vulnerable groups within the country. This activity is an important part of achieving the overall objective of the project, which is to improve the quality and use of climate related information for effective planning and action within Jamaica. It complements the upgrade of the hydro-met network, improved collection, analysis and use of climate data for decision-making, a behaviour change campaign and increased climate awareness and information towards general resilience building.

Effective EWM comprises inter-related elements, spanning knowledge of hazards and vulnerabilities through to preparedness and capacity to respond. The four key interrelated elements are:

- 1) disaster risk knowledge based on the systematic collection of data and disaster risk assessments;
- 2) detection, monitoring, analysis and forecasting of the hazards and possible consequences;
- 3) dissemination and communication, by an official source, of authoritative, timely, accurate and actionable warnings and associated information on likelihood and impact; and
- 4) preparedness at all levels to respond to the warnings received.

Currently the four elements exist in varying levels within Jamaica and reside with different authorities. It is the aim of this consultancy to utilize the scientific data to guide the

development of actionable impact based community specific EWM based on the needs of the vulnerable groups.

In doing so, the consultant will rely on existing outputs, knowledge and databases, where applicable. At the core of EWM must be a sound scientific basis for predicting and forecasting hazards and a reliable official agent for issuing targeted Early Warning Messages for vulnerable groups within the country warning messages. Much of this information resides with the Meteorological Service of Jamaica (MSJ). The MSJ is therefore a critical stakeholder for the development of Early Warning Messages and a platform such as their SMART alert system (among others) provides a model example of EWM in action.

Once developed, EWM will be tested on the vulnerable individuals within selected communities' island wide having an established Community Disaster Risk Management (CDRM) Plan thus helping to strengthen their resilience to hydro-met hazards (such as increased or decreased rainfall). Clear messages containing simple, useful information are critical to enable proper responses that will help vulnerable groups safeguard their lives and livelihoods. The messages will also help to promote behavioural changes and speak to activities, which the vulnerable groups can engage in, that should make them more climate resilient.

3. OBJECTIVE OF CONSULTANCY

The objective of the assignment is to develop EWM incorporating hazard data to guide the development of impact based community specific actions. The EWM will target vulnerable groups threatened by climate hazards and empower them to act in a timely and appropriate manner to reduce the possibility of personal injury, loss of life and damage to property. The targeted vulnerable groups are:

- 1) Low income groups living in unplanned settlements, particularly in hazard-prone locations
- 2) Elderly
- 3) Women
- 4) Children
- 5) Persons with disabilities
- 6) The rural population especially farmers whose economic productivity are weather dependent

4. SCOPE OF WORKS AND ACTIVITIES

Against the overall objectives listed above, specific tasks will include:

- Based on the needs of the vulnerable groups utilize the scientific systems and data sources above to develop messages incorporating hazard data to guide the development of impact based community specific actions
- Review of all relevant disaster risk information related to the target communities including but not limited to the Community Risk Profiles, Community Disaster Risk Management Plans, 2015 State of Jamaican Climate Report
- Identify all available scientific systems and data sources for the detection, monitoring, analysis and forecasting of the hazards, including the MSJ SMART alert system (<https://alert.metservice.gov.jm>).
- Testing of EWM conducted. This will include the method of dissemination as well as the actual messages developed, within selected communities
- Determine the most efficient technologies/mechanisms of transmitting the messages to the communities considering international best practice and the community's circumstances.
- Disseminating messages to targeted vulnerable groups

In completing the tasks listed above, the consultant will take the following approach:

- Stakeholder consultations with key stakeholders for the translation of risk, vulnerability and exposure data from the improved hydro-met data collection into actionable messages for the selected communities.
- Consultations with vulnerable groups and their representative agencies to guide the development of messages and determination of the ideal method of delivery.
- Engage media production experts, artists etc. where applicable/ necessary for the development of messages.
- Test the messages that have been developed through various methods including focus group discussions
- Conducting surveys and analysis of data to determine level of reach of messages via each messaging medium utilised.

5. SUPPORTING DATA AND INFORMATION SOURCES

Supporting data expected to be utilized by the client includes but is not limited to:

- SMART Alert System operated by the MSJ
- State of Jamaican Climate Report 2015
- Disaster Risk Management Act 2015
- Comprehensive Disaster Response Plan
- Community Early Warning Systems, Guides and Principles (International Federation of

- Red Cross)
- Vulnerability Ranking Index
- STATIN (population data etc.)
- Community Disaster Risk Management Plans with Disaster Contacts for Community Disaster Management Team
- Sendai Framework

6. CHARACTERISTICS OF CONSULTANCY

- 6.1. **Type:** Individual Consultant– Consultant Qualifications Selection Method
- 6.2. **Contract Duration:** 90 man days over an elapsed period of six (6) Months
- 6.3. **Commencement Date:** August 2020
- 6.4. **Place of Work:** Jamaica. Domestic field trips will be required during contract period.
- 6.5. **Contract Management:** The Contracting Authority is the Planning Institute of Jamaica (PIOJ) within the Ministry of Finance and Public Service whose Project Manager will provide general oversight of the project.
- 6.6. **Monitoring and Evaluation:** Project deliverables will be monitored, reviewed and signed off on by the -**Director of Information and Training at the Office of Disaster Preparedness and Emergency Management (ODPEM)** in close collaboration with PIOJ. ODPEM and PIOJ will provide technical comments and feedback on the outputs of the consultant.

7. DELIVERABLES

The consultant is required to provide deliverables as outlined below:

No.	Deliverable	Due Date	Payment
1	Inception Report with proposed work plan including detailed methodology. A detailed Work Plan is to be provided including the above activities and any other activity deemed appropriate by the PIOJ for the execution of the objective.	<i>Two weeks after Commencement.</i>	Ten Percent (10%) of Contract Sum
2	Report on initial surveys to determine level of awareness on climate change. Analysis and report on all needs	<i>Month Two (2) after Commencement.</i>	Ten Percent (20%) of Contract Sum

	assessments for vulnerable groups.		
3	Consultations with vulnerable groups to guide the crafting of specific messages for the vulnerable groups and their role in building climate resilience, reacting to the messages.	<i>Month Four (4) after Commencement</i>	Forty Percent (20%) of Contract Sum
4	Testing of draft early warning messages and dissemination strategy developed.	<i>Month Five (5) after Commencement</i>	Ten Percent (25%) of Contract Sum
5	Submission of final Early Warning Messages.	<i>Month six (6) after Commencement</i>	Thirty percent (25%) of Contract Sum

8. QUALIFICATIONS, KNOWLEDGE AND EXPERIENCE:

8.1 The consultant should hold an advanced degree in Mass Communication, with at least five (5) years' experience in Early Warning Messaging or any equivalent/applicable combination of training and experience. The consultant should also be knowledgeable about climate change and communicating for climate change adaptation. The consultant is expected to have **expertise**: in development communication, behaviour change, mass media technologies or electronic messaging.

8.2 Knowledge and Experience

8.2.1 Experience in the field of Disaster Risk Reduction.

8.2.2 Knowledge of Early Warning Message Design and Dissemination

8.2.4 Experience in multi-agency/stakeholder coordination.

8.2.5 Demonstrated understanding of climate change issues and their development implications for Jamaica and the Caribbean

8.2.6 Excellent communication, analytical and report writing skills

8.2.7 Project Management Experience

9. EVALUATION CRITERIA

CRITERIA	Maximum Score
(1) Education/Qualifications and Experience	35
<ul style="list-style-type: none"> ▪ Advanced degree in Mass Communication or related field 	25
<ul style="list-style-type: none"> ▪ At least five (5) years' experience Early Warning Messaging 	10
(2) Knowledge, Skills and Expertise	65
<ul style="list-style-type: none"> ▪ Project Management Training 	10
<ul style="list-style-type: none"> ▪ Experience in capacity building, multi-agency/stakeholder coordination, 	10
<ul style="list-style-type: none"> ▪ Experience in the field of Disaster Risk Reduction 	15
<ul style="list-style-type: none"> ▪ Demonstrated understanding of climate change issues and their development implications for Jamaica and the Caribbean 	15
<ul style="list-style-type: none"> ▪ Knowledge of Early Warning Message Design and Dissemination 	15
TOTAL	100