



REQUEST FOR PROPOSAL
CONSULTANCY TO STRENGTHEN EMERGENCY COMMUNICATIONS SYSTEMS AT THE NATIONAL METEOROLOGICAL AND HYDROLOGICAL SERVICES (NMHSs)

The Caribbean Institute for Meteorology and Hydrology (CIMH) has received financing from the United States Government through the United States International Development Agency (USAID) towards the “**Strengthening Disaster and Climate Resilience in the Eastern and Southern Caribbean (SDCR) Project**” and intends to apply a portion of the proceeds to eligible payments under a contract for which this invitation is issued. According to the Assistance Award agreement governing the SDCR Project, the authorized geographic code for procurement of goods and services under this award is US Government Code 937. As such, in addition to the United States of America and the award recipient countries, a list of countries from which eligible consultant teams, companies, firms or individuals can be engaged is attached at ANNEX 1.

The CIMH, the Implementing Agency, wishes to procure consultancy services to strengthen emergency communications systems for National Meteorological and Hydrological Services (NMHSs) in each of the seven (7) beneficiary countries - Barbados, Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, Saint Lucia and St. Vincent and the Grenadines.

The primary objective of this consultancy is to assist with the enhancement of the telecommunications infrastructure of the NMHSs in the beneficiary countries. The duration of the assignment is expected to be for a period of five (5) months.

The CIMH now invites submission of proposals for the provision of these consultancy services as detailed in ANNEX 2 - Terms of Reference (TOR). In the assessment of submissions, consideration will be given to technical competence, qualifications and experience, and the local and regional experience on similar assignments. All information must be submitted in English, on or before **June 16, 2021, 4:00 pm (Barbados Time)** to **procurement@cimh.edu.bb**, and addressed to:

Dr. David A. Farrell,
Principal,
Caribbean Institute for Meteorology and Hydrology (CIMH)
Husbands, St. James, BARBADOS

Further information may be obtained through email submission to sdcr@cimh.edu.bb, Attn: Ms. Cisne Pascal, Project Manager.

The CIMH reserves the right to accept or reject late applications or to cancel the present request for proposals partially or in its entirety. It will not be bound to assign any reason for not selecting any applicant and will not defray any costs incurred by any applicant in the preparation and submission of proposals.

ANNEXES

ANNEX 1 - LIST OF CODE 937 AWARD ELIGIBLE COUNTRIES

1. United States of America
2. Recipient Countries
 - a. Antigua & Barbuda,
 - b. Barbados,
 - c. Dominica,
 - d. Grenada,
 - e. St. Kitts and Nevis,
 - f. Saint Lucia, and
 - g. St. Vincent and the Grenadines
3. Other Eligible Developing Countries (*listed below*)



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List of Developing Countries

A Mandatory Reference for ADS Chapter 310

Low income/lower middle income

Afghanistan	Gambia, The	Myanmar
Bangladesh	Guinea	Nepal
Benin	Guinea-Bissau	Niger
Burkina Faso	Haiti	Rwanda
Burundi	Kenya	Sierra Leone
Cambodia	Korea, Dem Rep.	Somalia
Central African Republic	Kyrgyz Republic	Tajikistan
Chad	Liberia	Tanzania
Comoros	Madagascar	Togo
Congo, Dem. Rep	Malawi	Uganda
Eritrea	Mali	Zimbabwe
Ethiopia	Mozambique	
Angola	India	São Tomé and Príncipe
Armenia	Iraq	Senegal
Belize	Kiribati	Solomon Islands
Bhutan	Kosovo	Sri Lanka
Bolivia	Lao PDR	Sudan
Cameroon	Lesotho	Swaziland
Cape Verde	Marshall Islands	Syrian Arab Republic
Congo, Rep.	Mauritania	Timor-Leste
Côte d'Ivoire	Micronesia, Fed. Sts.	Tonga
Djibouti	Moldova	Turkmenistan
Egypt, Arab Rep.	Mongolia	Tuvalu
El Salvador	Morocco	Ukraine
Fiji	Nicaragua	Uzbekistan
Georgia	Nigeria	Vanuatu
Ghana	Pakistan	Vietnam
Guatemala	Papua New Guinea	West Bank and Gaza
Guyana	Paraguay	Yemen, Rep.
Honduras	Philippines	Zambia
Indonesia	Samoa	

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ANNEX 2
TERMS OF REFERENCE
CONSULTANCY TO STRENGTHEN EMERGENCY COMMUNICATIONS SYSTEMS AT NATIONAL METEOROLOGICAL AND HYDROLOGICAL SERVICES (NMHSs)

1. INTRODUCTION

1.01 In the last 10 years in particular, the CIMH has worked with the international community, to significantly accelerate the strengthening of NMHSs to detect, monitor, analyze and forecast hazards and their impacts. Recent impacts from Hurricanes Erika, Maria and Irma on the Caribbean raised concerns about (i) the lack of resilience of the telecommunication infrastructure used by NMHSs to support national multi-hazard early warning systems and (ii) the vulnerability of the physical infrastructure, the human capacity and technologies used by many NMHSs.

1.02 The processes for developing and delivering regional and national hydro-meteorological forecasts across the region is extremely interconnected and, as a result, requires resilient NMHSs connected by resilient cost-effective and efficient telecommunications infrastructure. The interconnectedness is driven by the longstanding agreement among the Member States of the Caribbean Meteorological Organization (CMO) that those states with hydro-meteorological forecasting offices (Guyana, Trinidad and Tobago, Barbados, Saint Lucia, Antigua and Barbuda, Jamaica, Cayman Islands and Belize) (i) develop and deliver forecasting services to those neighboring states lacking such capabilities and (ii) provide backup forecasting services for those services whose forecasting capabilities may become compromised.

1.03 The Climate Risk Early Warning System (CREWS) project publication “Caribbean 2017 Hurricane Season - An Evidence-based Assessment of the Early Warning System” (2018), emphasized the need to enhance the resilience of the hydro-meteorological early warning system in the Caribbean in the aftermath of the 2017 Hurricane Season during which several states lost communications with their hydro-meteorological service providers and external sources of weather information for prolonged periods of time. The loss of communication exacerbated the challenges faced by disaster management personnel and national security systems. The publication also highlighted several actions to enhance resilience including: (i) standardizing all aspects of the telecommunications infrastructure between NMHSs and improving competencies; (ii) reassessing, and where necessary, strengthening communications with the public in an effort to enhance public confidence in the local NMHS; and (iii) revisit the robustness of the telecommunications mechanisms supporting national and regional hydro-meteorological observation and early warning networks

1.04 The CIMH intends (i) to evaluate the telecommunications infrastructure supporting the sub-regional NMHS's service development and delivery system in the Eastern Caribbean and propose changes to enhance the system; (ii) to facilitate discussion on telecommunication challenges and their impacts on the interconnectedness model; (iii) to present the findings of the evaluation of the telecommunications infrastructure to key stakeholders and to agree on a strategy to improve the resilience of the system; and (iv) to procurement and installation of equipment along with the development of national training programmes for the staff of the relevant NMHSs.

2. ABOUT THE CARIBBEAN INSTITUTE FOR METEOROLOGY AND HYDROLOGY

2.01 CIMH is an Institution of the Caribbean Community and the technical Organ of the Caribbean Meteorological Organisation (CMO). The mandate of the CIMH is to “assist in improving and developing the meteorological and hydrological services as well as, providing the awareness of the benefits of meteorology and hydrology for the economic well-being of the CMO Member States”. This is achieved through training, research, investigations, and the provision of related specialised services and advice.

2.02 To achieve its mandate, the CIMH established an affiliation with the UWI in 1973 where its primary responsibility is the delivery of the Bachelor of Science Programme in Meteorology in the Faculty of Science and Technology. The CIMH is also recognised by the World Meteorological Organisation (WMO) as: (i) the Regional Training Centre in the Caribbean for meteorology and hydrology and related disciplines; (ii) a Regional Instrument Centre for the Caribbean; (iii) Centre of Excellence in Satellite Meteorology Training; (iv) the Regional Climate Centre for the Caribbean; and (v) a Pan American Sand and Dust Storm Warning Alerting and Assessment System node.

2.03 In recent years, the CIMH has become the Caribbean Centre for Climate and Environmental Simulations. In addition, the CIMH is the Climate Archiving Data Centre for CMO Member States. The Institute is also an important Caribbean centre for research and development related to meteorology, hydrology, agro-meteorology and climate as well as their applications in the Caribbean. It is active in such areas of hydrological risk impacts forecasting, agricultural risks forecasting, climate health related risk forecasting and has had strong collaborations with other regional institutions, national organisations in CMO Member States and the international community.

2.04 Currently CIMH is implementing the Strengthening Disaster and Climate Resilience in the Eastern and Southern (SDCR) Project, which is made possible by the generous support of the American people through the United States Agency for International Development (USAID).

2.05 The SDCR Project will contribute to building the resilience of the region through a series of small but effective initiatives that extend some areas of work started by CIMH. Equally as important, the work being proposed introduces innovative activities that are unrelated to previous activities executed by CIMH and the region. The SDCR Project will (i) strengthen hydro-meteorological observation platforms; (ii) strengthen the human capacity and institutional resilience of National Meteorological and Hydrological Services (NMHSs) in the Caribbean to enable them to maintain some level of functionality under the most arduous conditions; (iii) strengthen multi-hazard early warning systems in the Caribbean by enhancing the timely collection and integration of pre- and post-impact data into regional multi-hazard impact-forecasting and decision-support platforms that improve risk forecasting, management and reduction and (iv) further strengthen and expand the development and delivery of climate services in the Caribbean.

3. OBJECTIVES

3.01 The primary objective of this consultancy is to assist with the enhancement of the telecommunications infrastructure of the NMHSs in seven (7) beneficiary countries*.

4. SCOPE OF WORK

4.01 Key duties and responsibilities of the Consultants include:

- (a) Identify the key stakeholders relevant to the provision and use of emergency communication systems infrastructure in the seven (7) beneficiary countries analysis.
- (b) Conduct an assessment of the existing telecommunication systems of the NMHS in seven (7) beneficiary countries¹, to include the NMHSs' needs and a recommended emergency telecommunication systems infrastructure.
- (c) As part of the assessment at 4.01 (b), the engagement of key stakeholders to include those at the Caribbean Meteorological (CMO) Headquarters Unit, the World Meteorological Organisation (WMO), NOAA, local telecoms providers, and disaster management partners is required.

* SDCR Project seven beneficiary countries - 1. Antigua and Barbuda; 2. Barbados; 3. Dominica; 4. Grenada; 5. St. Kitts & Nevis; 6. Saint Lucia; 7. St. Vincent and the Grenadines.

- (d) Through presentation of the findings at 4.01 (b) above and consultation with key stakeholders, finalize the recommended emergency telecommunication systems infrastructure, with a view to an interoperable regional system.
- (e) Receive consensus from the key stakeholders on the approved equipment to be installed in the various countries to ensure the system is sustainable and maximizes the communications between all services.
- (f) Guide the procurement of the emergency telecommunication systems infrastructure for NMHSs, of approximately USD 100,000 in total.
- (g) Install the procured systems at the seven (7) NMHSs
- (h) Train the relevant NMHSs staff in the operation and basic maintenance of the system.
- (i) Ensure the existence of a user friend process for continued training and use of the equipment in the NMHSs.
- (j) Review for relevance and guidance emergency communications systems in island states in the South Pacific and the Indian Ocean

5. QUALIFICATIONS AND EXPERIENCE

5.01 The Consultant is required to have a proven track record and credentials in providing assessment of organizational telecommunication needs and in guiding the installation and use of these systems across organizations in times of emergency. In addition, the Consultant must have:

- (a) Extensive experience (at least 10 years) overseeing the installation and use of telecommunication systems by organizations.
- (b) Expertise in areas such as design of communications systems for emergency management and meteorological services; regional and international communication infrastructure inclusive of satellite based and land-based wireless systems.

6. DELIVERABLES

6.01 The Consultant will deliver the:

- (a) A plan for the assessment and installation of regionally interoperable telecommunications systems that can be used in emergencies, finalized with input from the NMHS' leadership.
- (b) A report of the findings of the assessment of the existing telecommunications system and the NMHS needs for installing a working regionally interoperable system.
- (c) A list of emergency telecommunications equipment and accessories to be procured for the NMHSs in the seven (7) beneficiary countries.
- (d) Installation of the procured equipment inclusive of manual for the use of and basic maintenance of the system.
- (e) Execute training of NMHS staff from the seven (7) beneficiary countries in use and basic maintenance of the newly installed systems.
- (f) A sustainability and maintenance plan which highlight strategies for the continuous use and maintenance of the systems by NMHS staff.

7. **DURATION**

7.01 It is expected that the scope of work will last for no more than five(5) months.

8. **REQUEST FOR PROPOSAL**

8.01 The CIMH invites the Consultant to submit a full proposal that includes the following elements:

- (a) The Technical Proposal should include or recognize the following:
- (i) The Methodology/Approach to the technical exchange detailing the proposed use of the consultant's expertise, experience, and other resources and innovations to achieve the objectives and deliverables of this consultancy;
 - (ii) Detailed Work Schedule inclusive of personnel assigned and the level of effort required for each task; (Reference Templates in Appendix 1 &2)
 - (iii) There must be a strong demonstration of the use of online virtual strategies and technologies to deliver the proposed activities, which also recognize the restrictions to global and regional travel and observe the five-month duration of the engagement.
 - (iv) Indicate how the expert team's experience, skills, qualifications and professional networks fit with the required deliverables;
 - (v) A Curriculum Vitae (CV) for each team member; and
 - (vi) A List of similar work completed in the past inclusive of date and location.
- (b) The Costing/Financial Proposal should include:
The ceiling price of the consultancy is USD 45,000. The Consultant is required to submit a financial proposal which details the cost categorized into two broad areas - Professional Fees and Billable Expenses.
- (i) Detailed professional fees against each task and level of effort per team member as presented in the detailed work schedule at 8.01 (a)(ii) (Reference Appendix 3) and
 - (ii) Other billable expenses (local transportation, airfare, per diem, administrative cost etc.) relevant to the undertaking of the Consultancy.

8.02 Criteria for Evaluation of Proposal

- (i) Demonstration of minimum requisite experience and qualification -**25%**
- (ii) Methodology proposed which demonstrate a logical approach to achieving the stated deliverables - **40%**
- (iii) Methodology/Approach which accommodates the restrictions imposed for in-person interactions and travel due to the COVID-19 Pandemic - **20%**
- (iv) Demonstrated experience working with regional CARICOM organisations similar to CIMH to deliver similar projects -**10%**
- (v) Demonstrated experience working in SIDS regions to deliver similar projects -**5%**

8.03 Deadline for Submission of the Proposal.

Submissions in PDF format must be e-mailed to procurement@cimh.edu.bb on or before **June 16, 2021**. All inquiries for information regarding this solicitation should be directed to sdcr@cimh.edu.bb.

APPENDICES- TEMPLATE TABLES

APPENDIX 1- Work Schedule Template Table: Level of Effort

Work Schedule Template Table: Level of Effort

Tasks	Team				Total (Man Days)	Timeline
	Team Member 1 (Man Days)	Team Member 2 (Man Days)	Team Member 3 (Man Days)	Team Member 4 (Man Days)		
Broad Task 1						
Sub-task 1.1						Start Month – End Month
Sub-task 1.2						Start Month – End Month
Sub-task 1.3						Start Month – End Month
Broad Task 2						
Sub-task 2.1						Start Month – End Month
Sub-task 2.2						Start Month – End Month
Sub-task 2.3						Start Month – End Month
Total						

APPENDIX 2: Work Schedule Template Table: Timeline/Work Plan

Work Schedule Template Table: Timelines/Work Plan

	Month 1		Month 2		Month 3		Month 4		Month 5		Month 6	
	Weeks											
	1-2	3-4	1-2	3-4	1-2	3-4	1-2	3-4	1-2	3-4	1-2	3-4
Broad Task 1												
Sub-task 1.1												
Sub-task 1.2												
Sub-task 1.3												
Broad Task 2												
Sub-task 2.1												
Sub-task 2.2												
Sub-task 2.3												
Total												

APPENDIX 3- Template Table for Professional Fees

Template Table for Professional Fees

Tasks	Team				Total (USD)
	Team Member 1 (USD)	Team Member 2 (USD)	Team Member 3 (USD)	Team Member 4 (USD)	
Broad Task 1					
Sub-task 1.1	# of days x Daily Rate	# of days x Daily Rate	# of days x Daily Rate	# of days x Daily Rate	
Sub-task 1.2					
Sub-task 1.3					
Broad Task 2					
Sub-task 2.1					
Sub-task 2.2					
Sub-task 2.3					
Total					