

REGIONAL DISASTER VULNERABILITY REDUCTION PROJECT
Terms of Reference (TOR)
For
National Curriculum Development in Climate Change Mitigation and Adaptation and
Disaster Risk Reduction
Reference No.: SVGRDVRP-C-QS-7

1. BACKGROUND

Saint Vincent and the Grenadines (SVG) is at risk to multiple hazards, which may set back development and affect many lives and livelihoods. The main threats include tropical weather systems-induced hurricanes, storms, storm surges, tropical waves and depressions, coastal erosion, flooding, and drought and other natural hazards, such as landslides, earthquakes, and volcanic eruptions. The frequency and intensity of weather-related hazards and their impacts are likely to increase as a result of accelerated climate change. Other island states in the Caribbean region such as Grenada, Saint Lucia and Dominica are also facing similar risks to disaster and climate change impacts.

The Government of SVG (GoSVG) is responding to these increased threats through the Organisation of Eastern Caribbean States (OECS) Regional Disaster Vulnerability Reduction Project (RDVRP), which aims to reduce the vulnerability of SVG, Grenada, Saint Lucia and Dominica to natural hazards and climate change. The regional project is financed through grants and credits received from the World Bank and the Climate Investment Fund's Pilot Program for Climate Resilience (PPCR).

Under Component 2 of this program, entitled "*Regional platform for hazard and risk evaluation and applications for improved decision making*", the GoSVG has identified a number of priority investments to strengthen institutions, legislation and education outreach aimed at building resilience to current and future climatic changes. A key area of investment is in the education of youths on climate and disaster risks and on the necessary response measures in terms of disaster risk reduction (DRR) and climate change mitigation and adaptation (CCMA). Educating students about the risks and crucial safety measures from an early age and throughout the school years helps to build a sense of resilience and promote a culture of disaster and climate change preparedness. Students can benefit from the knowledge and understanding of the hazards likely to affect them. They can also receive guidance on how to reduce risk, prepare and respond to the impacts of multiple hazards and risks related to climate change and disaster.

Teachers have a critical role to play in the successful implementation of these programmes. They help the students make sense of the information available to them, not only in specialised subjects but also in general. Appropriate training on the issues related to disaster and climate change and the response measures in terms of DRR and CCMA places the teachers in a better position to impart knowledge to students, create and maintain a safe learning environment, and help build a culture of disaster and climate change preparedness.

2. OBJECTIVE

The objective of the proposed Consultancy is to provide technical support to the Ministry of Finance, Economic Planning, Sustainable Development, and Information Technology (the Client) and the Ministry of Education, National Reconciliation, Ecclesiastical Affairs and Information (MoE), for development of a national curriculum for the lower secondary schools in climate change and disaster risk reduction.

3. DURATION

It is expected that the consultancy will last a period of twelve (12) months to produce the deliverables listed in section 7.

4. GENERAL REQUIREMENTS

The Client will be contractually responsible for the supervision of the Consultant's assignment, however the Consultant will work closely with the MoE to review the curriculum, develop a national curriculum in CCMA and DRR with the purpose of integrating into the lower secondary curricula. Additionally, teachers should be trained to execute same. The curriculum should also introduce the problem of climate change and disasters in an easily understood manner.

The Consultant will be responsible for carrying out studies, interviews and workshops to develop the outline material/contents, prepare drafts, test, review and finalise the teaching material. The Consultant will also carry out any additional services, which the Client may reasonably require relating to the design of the project.

The services shall be carried out in accordance with generally accepted standards of professional practice. It is also understood that it will cover all activities necessary to accomplish the stated objectives of these services while adhering to the aforementioned principles and practices, whether or not a specific activity is cited in these TOR.

5. TASKS

Task 1: Inception report and Data Collection.

a. Inception Report

Following contract commencement, the Consultant will produce an Inception Report in accordance with the content of Appendix B.

b. Data collection

Review and compile participatory learning tools (interactive games, play models and teaching aids) that would improve the ability of students to understand CCMA/DRR issues.

Review and compile existing materials that explain the disaster and climate change issues from the small island developing states (SIDS) perspective, ensuring the incorporation of regional resources.

Review and compile in a handbook existing CCMA and DRR adaptation materials especially related to the curriculum ensuring the incorporation of regional resources.

At the end of this task, **an Inception report and a data collection Report** will be the deliverable.

Task 2: Develop CCMA and DRR curricula for secondary schools

- a. Identify lesson objectives in various subjects where CCMA and DRR concepts contained in the curriculum will fit, taking note of existing information from the Curriculum Unit and DRR resource personnel.
- b. Conduct a series of meetings and workshops with students, teachers, educators, curriculum developers and CCMA and DRR experts/stakeholders to develop material/content, messages and identify specific curriculum needs.
- c. Engage with an expert in educational psychology, to ensure that the lessons provide a positive messaging around human resilience (in the face of CCMA/DRR).
- d. Develop detailed and applicable curricula to integrate and infuse CCMA and DRR for (a) Forms 1 to 3 of secondary schools. This includes the development of master documents to produce student handouts and teaching aids.
- e. Share the first draft of the school's curriculum and teacher training module with key stakeholders including Curriculum Unit representatives, Education Officers, Teachers, students, Disaster Management Officers, Red Cross representatives, Division of Teacher Education Representatives, the Sustainable Development Unit, the National Emergency Management Organisation (NEMO) and volunteers to obtain feedback and make improvements.

At the end of this task, **a Draft Curriculum for testing and associated report** will be the deliverable. Suggested topics can be found in Annex B.

Task 3: Pilot Curriculum and workshops

- a. Pilot the curriculum with student focus groups and revise based on the feedback.
- b. Compile lessons in the form of a module for each grade (as mentioned in task 2) in secondary schools. Each lesson should include Q&A and child-appropriate discussion questions to stimulate the students' thought processes.

- c. Provide a resource list with links and access to all CCMA and DRR related learning programs that CDEMA¹, World Bank, the Red Cross, UNFCCC² and UN CC:Learn³ and other organisations have developed.
- d. Incorporate community engagement activities where work produced in class can be shared with the community to help raise awareness, generate feedback and influence behaviour change.
- e. Organize the final workshop with the above mentioned stakeholders based on approval of modules by the MoE.

At the end of this task, a **Pilot Report** which will include the outcomes of the pilot and the workshops will be the deliverable.

Task 4: Development of final CCMA and DRR Module for Teacher Trainees

- a. Compile the existing material available on CCMA and DRR for integration in curriculum for trainee teachers
- b. Develop a CCMA and DRR integration module which will be taught to teacher trainees who attend the SVG Community College Division of Teacher Education or at the secondary school level.
- c. Develop the module for teacher trainees on learning – teaching process for CCMA and DRR integration and infusion.
- d. Organise at least three (3) workshops to disseminate the final modules to various stakeholders, including Curriculum Unit representatives, Education Officers, teachers, Disaster Management Officers, Red Cross representatives, Division of Teacher Education representatives, the Sustainable Development Unit and volunteers.

At the end of this task, a **final project report and the modules** will be the deliverables.

6. INPUTS

The Client

¹ Caribbean Disaster Emergency Management Agency

² United Nations Framework Convention on Climate Change

³ UN Climate Change Learning Partnership

- a. The Client will provide all available data and SVG curriculum requirement, etc. of the proposed work that might be necessary, applicable and already in the Client's possession for the execution of the work required under these TOR. The Client will not be responsible for data collection of any type;
- b. The Client may assign staff to the Consultant for training in the various aspects of the work;
- c. The Client will assist the Consultant in obtaining visas, work permits, driving licenses, car registration, etc. and any other formalities found necessary for the Consultant's personnel entering or leaving SVG for the purpose of carving out the services.

The Consultant

The Consultant will be required to undertake the various activities outlined in Section 5 of these TOR. The Consultant will provide the office space, manpower, transportation, equipment and software required to carry out the assignment and be responsible for obtaining all additional information for the execution of the services necessary for the project.

7. REPORTING REQUIREMENTS (Deliverables)

Throughout the preparation of the various tasks of the study, the Consultant shall submit the following documents/outputs (in MS Word) to the Client's satisfaction

- a) **Inception Report (Task 1a):** within three (3) weeks of commencing the works, the Consultant is required to submit an Inception Report. A typical sample template is provided in Annex A.

The Client/MoE should forward comments on the report to the Consultant within two (2) weeks of receipt.

- b) **Data collection Report (Task 1b):** within six (6) weeks of commencing the works, the Consultant is required to submit a data collection and analysis report.

The Client/MoE should forward comments on the report to the Consultant within two (2) weeks of receipt.

- c) **Draft curriculum for testing and associated report (Task 2):** Within sixteen (16) weeks after acceptance of the **Inception and data collection Reports**, the Consultant is required to submit a draft curriculum and make a presentation to the Client/MoE. The presentation would be in the form of a workshop, where knowledge transfer on all aspects of the development of the curriculum will be the primary objective. The audience will include teachers representing secondary schools including but not limited to Earth Science subjects from the MoE and is not expected to exceed eight (8) hours.

The Client/MoE should forward comments on the report to the Consultant within four (4) weeks of receipt.

- d) **Pilot Report (Task 3):** within eight (8) weeks after acceptance of the **Draft curriculum**, the Consultant is to conduct the pilot and within four (4) weeks of concluding the pilot the Consultant is required to submit a **Pilot Report**, including the comments from the workshops.

The Client/MoE should forward comments on the report to the Consultant within two (2) weeks of receipt.

- e) **Final project report and the modules (Task 4):** within four (4) weeks after acceptance of the **Pilot Report**, the Consultant is required to submit final report including the modules to the Client. A typical sample template is provided in Annex C.

8. QUALIFICATIONS AND EXPERIENCE

Firms should have experience in curriculum development for secondary students as well as teacher trainees with at least two successfully completed similar assignments during the past five (5) years. Firms should have qualified professional staff in the following areas: Earth Science education, climate change and curriculum development.

The key experts required for the Consultant's team and their minimum qualifications and experience are as follows:

WORK TEAM MINIMUM REQUIREMENTS		
Position	Qualifications	Specific experience
Project Director/Team Leader	Masters degree in Education or related field.	Advisor, Consultant or management positions in development of secondary school curricula. Experience not less than 10 years with at least two projects in the field of climate change and disaster risk reduction and at least (1) with the Caribbean region.
Climate Change Specialist	Masters degree in Natural Resource Management or related field	Experience in climate change and disaster risk reduction in education. Experience not less than 5 years with at least one (1) project implemented and experience in the Caribbean region.
Curriculum	Masters degree in	Experience not less than 5 years in

Development specialist	Curriculum Development or Curriculum, Pedagogy and Assessment (CPA)	developing curriculum for Secondary Schools in the field of Earth Sciences with at least one (1) project in climate change and disaster risk reduction.
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The firm must select and hire other experts (Non key) as required according to the profiles identified in the Organisation & Methodology and/or these TOR. All experts must be independent and free from conflicts of interest in the responsibilities they take on.

ANNEX A

Inception Report Template

The Consultant is free to format the Inception Report to his/her normal presentation, but the report shall contain the following minimum content:

- Executive Summary
- Introduction
- Background and description of various project elements
- Understanding of project objectives
- Contract signing and project commencement
- Team mobilization and project activities to date
- Data collection
- Data gaps
- Assumptions, Risks and Mitigation Strategy because of data gaps
- Comments on TOR
- Design criteria and codes
- Project Organisation / Lines of communication
- Project execution, methodology and scheduling
- Proposed outlines for interim and final reports
- Appendices e.g. meeting details, Organisation Chart, TOR, photographs, etc.

ANNEX B

1. CCMA and DRR concepts (definitions and examples)

Hazard

Disaster

Vulnerability

Capacity

Resilience

Risk

Disaster Management

Climate Change

Green House Gases (GHGs)

Climate Variability

Global Warming

Mitigation

Adaptation

Slow onset events

Rapid onset events

2. Hazards

Classification of hazards (Natural – meteorological, geological, biological and Man Made – technological, biological)

Likely hazards in Caribbean and SVG – Earthquakes, landslides, floods, tsunami, volcanic eruptions, drought, spills, transport accidents

3. Preparedness for common Hazards

Characteristics of the hazards

Why these hazards become disasters

How to prepare for these hazards to reduce or eliminate the impacts

Reducing the effects of the hazards

4. Disaster Plans

Community Plans

School Plans

Family Plans

Emergency Drills – evacuation

5. Safety and First Aid Skills

Safety around the house – computer wires, household cleaners, bottle labelling, gas bottles

Standing water

Over hanging trees

First Aid and CPR

Spread of communicable diseases

Issues related to vulnerable groups e.g. babies/infants, special needs, elderly, ill, pregnant, mentally ill

6. Disasters

History of significant hazards/disasters which affected SVG

Review of News items on disasters

Statistical analysis of hazards affecting SVG – damage, loss, cost to various sectors, cost for rehabilitation, GDP loss, loss of lives

Cost to various sectors, case studies e.g. The Education sector – loss of instructional time, loss of school supplies, damage to the school buildings, impact on students, impact on staff

Climate change and disasters

7. Environmental issues

Improper waste disposal

Pollution

Soil erosion

Deforestation – forest, mangroves

Land degradation/desertification

Drainage – household, surface run off

Coastal erosion – sand mining, coastal development

Green House Gases (GHGs)

Drought

Loss of biodiversity

Ocean acidification

Salt water intrusion into coastal aquifers

8. Mapping

Community maps – identify important features, buildings, routes

Evacuation routes

Hazardous/high risk locations

Important buildings – schools, churches, police stations, clinics/hospitals, shelters, resource centres (vulnerable buildings)

GIS and GPS mapping

9. Building codes and standards for various hazards

Caribbean Uniform Building Code (CUBiC)

10. Psychosocial effects of disasters/Post-traumatic stress disorders related to disasters

Dealing with the experience

Understanding the experience of others

Coping following disasters

Expressing experiences, emotions, actions

Looking at poems, stories, videos and documentaries about past disaster experience e.g. Shake Keane's poem on La Soufriere; Montserrat has a series of poems on YouTube from past competitions about children's volcanic eruption experiences, CDEMA has documentaries, etc.

www.weready.org

Art/painting perception of hazards or experience

There are also some YouTube videos on impact of climate change – i.e. aftermath of climate events in the Caribbean, including SVG, and there are several documentaries.

11. Climate Change

Definition of weather and climate

What is climate change?

Causes of climate change – both natural and anthropogenic, with a focus on anthropogenic

Impact of climate change – focus on Caribbean/SVG

Mitigation of climate change – renewable energy, energy conservation, forest conservation

Adaptation to adverse impacts of climate change - examples from the Caribbean – coastal defence, fish sanctuaries, others

SVG's agenda on climate change – What has been done to date, agreements ratified

The Caribbean Climate Change Agenda - CCCCC – Caribbean Community Climate Change Centre, future plans

12. Disaster management Framework in SVG/Caribbean and how it fits into the global agenda

District and Community Disaster Management

IFRC and Red Cross

NEMO – structure and responsibilities

CDEMA – structure and responsibilities

UNISDR – Frameworks and policies

Additional Resources

- CDEMA - www.weready.org
- World Bank Open Learning Campus
- Weather and climate information and preparedness:
- US National Weather Service - Education: <http://www.weather.gov/owlie/>
- NoAA - Playtime for Kids - online game:
<http://www.nws.noaa.gov/om/reachout/kidspage.shtml>

ANNEX C

Final Report Template

The Consultant is free to format the Final Completion Report to his/her normal presentation, but the report shall contain the following minimum content:

- Title Page
- Table of Contents
- Acknowledgements
- Executive Summary
- Background
- Aims and Objectives
- Methodology (standards used etc)
- Implementation
- Outputs and Results (including modules)
- Outcomes
- Conclusions
- Recommendations
- Lessons learned
- References
- Appendices