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Director's Report for 2011

Introduction

This report covers the period January to December 2011.

Saint Lucia is exposed to natural and man-made hazards, which increasingly have the potential to cause significant loss of life and property, as well as serious damage to the environment and the economy. At the same time, the national and regional interdependencies resulting from globalization increase Saint Lucia's vulnerability to the impacts of events caused by natural and technological hazards both at home, and abroad.

The National Emergency Management System

NEMS Structure

The National Emergency Management System of Saint Lucia is made up of the following components:

- The National Emergency Management Advisory Committee
- The National and District Disaster Committees
- The National Emergency Management Organisation Secretariat

All of which are supported by the Disaster Management Act and the National Emergency Management Plan. These many components work together to develop, test and implement adequate measures to protect the population of Saint Lucia from the physical, social, environmental and economic effects of both natural and man- made disasters. Its responsibility is to ensure the efficient functioning of preparedness, prevention, mitigation and response actions.

The vision of the NEMS is to have;

A nation highly resilient to hazard impacts and adaptable to hazard risks.

Annual Reports

1. <u>Annual Country Report</u> -- In keeping with the Disaster Management Act No. 30 of 2006, an Annual Report is prepared, for forwarding to the Prime Minister, on the Disaster Management activities.

The Disaster Management Act 30 of 2006 has set deadlines.

Annual Report

10.— (2) The Director shall submit the Annual Report to the Minister and shall, on or before 1st June in every year, publish the Annual Report in the Gazette.

It continues to be a source of sadness that many Committees consistently do not submit written reports for inclusion in the Annual Report. The report on the period of 2010 was prepared once again with little to no submission from the members of NEMO.

For the 2010 reporting period the following was received:

- Out of a possible 12 National Reports one was received;
- Of the eighteen District Committees three committees reported in and of
- the seventeen Ministry Liaison Reports four reports were submitted.
- 2. Annual Tsunami Report As a member of the Inter-Governmental Oceanographic Commission Saint Lucia took part in the Sixth Session of the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS-VI) in the Dominican Republic. All member states are expected to submit a country report. The latest report from Saint Lucia as well as part reports are hosted at http://stlucia.gov.lc/docs/Reports/tsunami_reports.htm

Achievements

- 1. Partnership with Cruise lines: In the immediate aftermath of Hurricane Tomas (2010) the Cruise line industry in particular Carnival Cruises donated many items to the victims. This relationship between Carnival Cruises and Saint Lucia deepened in 2011 as many items channeled through NEMO Secretariat were donated to Medical Facilities, Children's Homes and many needy individuals.
- 2. Saint Lucia holds the Chair of the Regional Committee for Regional Monitoring and Evaluation System for Disaster Risk Management and Climate Change Adaptation in the Caribbean Tourism Sector as financed by the Inter-American Development Bank (IDB)
- 3. <u>School Safety Program:</u> this is lead by the Ministry of Education in collaboration with USAID/OFDA, however many of NEMOs members provide strong support to the program.
- 4. <u>Regional Award:</u> As part of the 20th Anniversary Celebrations of the creation of the Caribbean Disaster Emergency Management Agency (formally CDERA), the Director NEMO was among five Caribbean Disaster Managers who were awarded for their contribution to disaster management

The award was in hounor of the years of commitment, dedication and broad contribution to the development and strengthening of the disaster management agenda in the Caribbean. The work of the five honourees, which had significantly influenced the padadign shift to disaster risk management and the embracing of a comprehensive approach across the region.

The awards were presented on 6th December, 2011 during the 6th Caribbean Conference on Comprehensive Disaster Management held in Trinidad and Tobago.

Trainings & Meetings

The NEMO Secretariat and its members attended a number of training sessions and meetings both in Saint Lucia and abroad. Some of these sessions include:

1. Series of Technical Missions with World Bank

- a. Hurricane Tomas Reconstruction Project
- b. Review of DMP II
- a. Pilot Program for Climate Resilience/ Disaster Vulnerability Reduction Project [PPCR/DVRP]
- 2. Series of meetings of the Hurricane Tomas Reconstruction and Recovery Steering Committee
- 3. Meeting/Working Session: Use of GIS Related Technologies to Build Resilience and Reduce Vulnerability to Climate Change and Climate Variability
- 4. International Civil Aviation Organization Universal Security Audit Programme Second Cycle Audit of Saint Lucia
- 5. Series of Meetings hosted with the Ministry of Education on the CARICOM/Brazil/FAO Cooperation Programme Living Schools and Emergency Response Capacity Building
- 6. CDEMA Symposium on the review of Saint Lucia's Earthquake plan
- 7. Consultation to Assist in the Development of a Beach Management and Safety Standards Framework for Saint Lucia
- 8. Meetings of Technical Working Groups of CDEMA:
 - a. Regional Committee for Regional Monitoring and Evaluation System for Disaster Risk Management and Climate Change Adaptation in the Caribbean Tourism Sector
 - b. Plan Review and Development Sub-Committee
 - c. Work program Committee
- 9. Meetings of the Coastal Zone Management Advisory Committee
- 10. CARIBE Wave 2011 Tsunami Regional Simulation Exercise
- 11. Training as part of the Caribbean Satellite Disaster Pilot (CSDP)
- 12. Second Regional Platform meeting in Mexico
- 13. With CDEMA CU Missions to Antigua and Barbados for review of the National Plans
- 14. Second CDEMA TAC Meeting in the Virgin Islands
- 15. Sixth Session of the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions in the Dominican Republic
- 16. Workshop on Enhancing Resilience to Reduce Vulnerability in the Caribbean (ERC) in Trinidad
- 17. CDEMA-UNISDR Making Caribbean Cities Resilient Workshop in Trinidad
- 18. Sixth Annual CDM Conference in Trinidad

Programs

Five Year Strategic Plan

Starting in 2002 the Government of Saint Lucia through the National Emergency Management Organisation [NEMO] and the support of many partners has developed a sophisticated National Emergency Management System. The system is supported by an equally comprehensive National Emergency Management Plan a plan cited as an example by agencies such as PAHO and OCHA.

As developed as the system and the plan has become the ability to coordinate the program has suffered. The Saint Lucia 2012-2017 Strategy and Programming Framework was developed to be line with the following:

- 1. Government's priorities
- 2. National Emergency Management Plan
- 3. National Development Plan
- 4. The Public Sector Development Planning Framework
- 5. Saint Lucia Comprehensive Disaster Management Policy
- 6. Disaster Management Act 2006
- 7. Regional CDM Strategy and Framework (CDEMA/CARICOM/GOSL)
- 8. Hyogo Framework for Action 2005-2015
- 9. Hazard Mitigation Plan of Action
- 10. St Georges Deceleration of Principles

To be able to achieve the Nation's vision; the Government of Saint Lucia recognises that the NEMO Secretariat shall need to be restructured to reflect the thirteen [13] major functions as outlined below:

- 1. <u>Laws and Authorities</u> This involves the laws and implementing regulations that establish the legal authority for the development and implementation of the disaster management programme and organization, and defines the emergency powers, authorities, and the responsibilities of the Governor General, elected officials, appointed officers and the Director of NEMO.
- 2. <u>Planning</u> Disaster management involves the development of several types of plans. This function deals with the most important plan: a Comprehensive Disaster Management Strategy and Programming Framework (CDMSPF) that outlines a strategy for reducing the hazards that the Country faces and focuses on emergency response and short-term recovery to a disaster occurrence.
- 3. Direction, Control, and Coordination During the pre-, trans-, and post-phases of the emergency response, direction, control, and coordination allows officials to: 1) analyze the situation and decide how to quickly and effectively respond; 2) direct and coordinate response forces; 3) coordinate with other jurisdictions; and 4) use available resources efficiently and effectively.
- 4. <u>Communications and Warning Technology</u> Communications involves establishing, using, maintaining, augmenting, and providing backup for all types of communications devices required in day-to-day emergency and response operations. Warning comprises the dissemination to Government officials and the public and timely forecasts of all hazards requiring emergency response actions.
- 5. Operations and Procedures Development, coordination, and implementation of operational plans and procedures are fundamental to effective disaster response and recovery. Standard Operating Procedures (SOPs) and checklists provide the detailed instructions that an organization needs to fulfil responsibilities assigned.

- 6. <u>Training</u> Assessment, development, and implementation of a training/educational programme for public/private officials and emergency response personnel.
- 7. Exercises A programme of regularly scheduled exercises, designed for assessment and evaluation of emergency response plans and capabilities, is critical to the Country's disaster management programme.
- 8. <u>Public Information and Education</u> Public Information and Education provides the general public with education on the nature of hazards, protective measures, and an awareness of the responsibilities of Government and citizens in an emergency/disaster. During a disaster event, this function focuses on providing accurate, timely, and useful information and instructions to people at risk in the community throughout the emergency period.
- 9. Resource Management Resource management involves the systematic development of methodologies for the prompt and effective identification, acquisition, distribution, accounting, and use of personnel, facilities, and major items of equipment for essential emergency functions.
- 10. <u>Hazard Identification and Risk Assessment (HIRA)</u> As laid out in the Disaster Management Act the Hazard Identification and Risk Assessment process involves the identification of hazards and the assessment of risks to persons, public and private property, and structures. The data collected at the community/island level provides much of the data that will be used to produce its assessment of risk. The information collected during the HIRA will also be used for more detailed damage and loss estimation projections.
- 11. <u>Hazard Mitigation</u> The intent of a hazard mitigation process is to target resources and prioritize mitigation activities to lessen the effects of disasters to the population, communities, businesses, industries, and government.
- 12. <u>Logistics and Facilities</u> The identification, location, acquisition, distribution, and accounting for services, resources, material, and facilities is required to adequately support disaster management activities.
- 13. <u>Finance and Administration</u> The development of fiscal and administrative procedures designed to support a disaster management programme.

To achieve the functions the NEMO Sec's work is divided into five (5) Programme Areas which are to be managed by programme managers, namely:

- 1. Community Resilience
- 2. Mitigation, Planning & Preparedness
- 3. Information, Training & Education
- 4. Emergency Operations
- 5. Administration and Finance

With 2011 being an election year the Strategic Plan was distributed to the six Political Parties contesting the General Elections:

Lucian Greens [GRN] Lucian People Movement [LPM] National Development Movement [NDM] Organisation of National Empowerment [ONE] Saint Lucia Labour Party [SLP] United Workers Party [UWP]







Three of the parties produced manifestoes that carried statements on Disaster Risk Management the NDM, SLP and UWP.

In 2012 the Cabinet of Ministers shall contemplate the adoption of the Strategic Plan.

Program Area: Mitigation, Planning & Preparedness

Mitigation efforts are attempts to prevent hazards from developing into disasters altogether or to reduce the effects of disasters. While ppreparedness is how we change behaviour to limit the impact of disaster events on people.

The vulnerability of Saint Lucia as a small island developing nation is not in question. What does need to be addressed is how to keep it safe, sound and thriving. In this regard the National Hazard Mitigation Policy and the National Hazard Mitigation Plan were developed as strategic instruments for hazard mitigation to be integrated into all aspects of public, private, local and individual sector activities. The development of a Hazard Mitigation Plan of Action is a guide to the implementation of the Hazard Mitigation Plan and the Policy collectively; thereby creating actual working, thriving and ongoing mitigation practices throughout Saint Lucia, as well as to stimulate the government, communities and individuals to use current hazard mitigation programmes and to implement new strategies, projects and programmes within their communities. The plan of Action will give specific recommendations and a framework for implementation.

Achievements for the period under review

In 2010 Prime Minister King, recognizing the recurring impacts of hazards, called for the development of a National Mitigation Program for the island. Using the 2008 Draft Hazard Mitigation Plan of Action as the basis for the development, the proposal for the National Program was completed in 2011.

Challenges

Two challenges were identified for effective implementation of the National Mitigation Program:

- 1. Hazard Mitigation Officer
- 2. Funding for the Program

With the increased thrust towards Climate Change Adaptation and Disaster Risk Management development partners have rededicated their support to communities in a more direct manner

though a series of grant funds. Unfortunately Saint Lucia has not maximized the use of these opportunities. Two such programs are:

- 1. Canada Caribbean Disaster Risk Management Fund
- 2. USAID/OFDA Small Grant Fund

In the aftermath of Hurricane Tomas of October 2010, many communities and NGOs are seeking meaningful ways to rebuild the Nation in a manner that will reduce future devastation. The financing of the program having been identified, NEMO seeks the identification of an Officer to coordinate this important National Program.

A National Action Plan has been developed and funding for the program has been identified. The last component: that of an Officer to coordinate all aspects is what needs to be addressed for such an important program to be introduced to the Nation.

Targets for the next period

In 2012 the National Mitigation Program will be presented to the Government for approval, adoption and implementation.

Program Area: Operations & Maintenance

During the period under review a Handyman was assigned to the NEMO Secretariat. His duties are directly targeted at the maintenance of the smooth running of the office plant.

ACHIEVEMENTS

The achievements in the area of maintance has been very encouraging for the period under review (Jan.-Dec.2011). The following are a few of these achievements:

- **1.** Filter placed on water system.
- 2. Having both buildings function on the stand-by generator.
- **3.** Water tanks tested by the Ministry of Health, making it safe for human consumption.

CHALLENGES

Though finance remains a challenge, the offices remains optimistic that objectives will be achieved. Training is required in the areas of:

- SUMA
- Shelter Management
- Warehouse Management

WAY FORWARD

For the period (Jan-Dec 2012) there are a range of items targeted, but priority will be given to areas such as:

- 1. having the extractor fan in the warehouse installed;
- 2. two (2) outside pipes on the new building and concrete water tanks,
- 3. getting the generators from Slovakia started, in the event there is an urgent need for their use.
- 4. testing of stand-by generator every two months.

Program Area: Projects

Projects

- 1. Comprehensive Disaster Management Harmonized Implementation Programme (CDM-HIP) The CDEMA CU in partnership with the OECS Secretariat and with financial support from the Canadian International Development Agency (CIDA), UK Aid and the Australian Agency for International Development (AusAID) are co-implementing the Comprehensive Disaster Management Harmonized Implementation Programme: Phase 2 (CDM HIP). The programme is directly aligned to support Priority Outcomes 1, 2 and 4 of the Enhanced CDM Strategy and Programming Framework.
- 2. School Safety Program The School Safety Program is being promoted by USAID/OFDA a partner in risk management planning. It is focused on the formulation of strategies for addressing school safety and requires broad community participation and involvement in school safety planning, the development of model plans and the replication of best practices. The program was presented to and received the endorsement of the Ministry of Education. A Committee has been setup to coordinate and promote the implementation of the program.
- 3. **Special Program on Adaptation to Climate Change [SPACC]** NEMO continued as a partner in GEF-World Bank sponsored SPACC. NEMO collaborated with the Sustainable Development Section on the SPACC by providing a structure, the Castries East Satellite Emergency Supplies Warehouse, for retrofitting to *climate change specifications* under the Project. It shall serve as model for information sharing.
- 4. Caribbean Disaster Management Project [CADM] Phase 2 The CADM is a Japan International Cooperation Agency (JICA) sponsored project which aims at hardening the resilience of the CDERA member states to floods. During the year a Country visit was conducted by the sponsors and consultants and the project contract signed by the Government. Various components of the project are to be implemented during the ensuing year.
- 5. The Regional Monitoring & Evaluation Framework for Risk Management in the Caribbean Tourism Sector Funding for the Regional Monitoring & Evaluation

Framework for Risk Management in the Caribbean Tourism Sector, a follow-up project to the Regional Disaster Risk Management for Sustainable Tourism in the Caribbean Project was secured by CDERA from Inter-American development Bank. This project will aim to implement the products developed under the former project. Though approved during this year it is expected to be implemented during the ensuing year.

- 6. Regional Monitoring and Evaluation System for Disaster Risk Management and Climate Change Adaptation in the Caribbean Tourism Sector Project. The project aims to build a monitoring and evaluation system to measure effectiveness of actions undertaken in the Caribbean tourism sector to build resilience to natural hazards and to adapt to climate change. Supported by the Inter-American Development Bank, the project is being implemented by CDEMA in partnership with the Caribbean Tourism Organisation, the University of Guyana, the University of the West Indies and the Caribbean Community Climate Change Centre.
- 7. ACP-EU Facility for Natural Disaster Management was established in May 2005. It is aimed at contributing to disaster risk management and providing added-value at the sub-regional as well as intra-ACP levels. To this end the European Commission partnered with Caribbean Disaster Emergency Management Agency (CDEMA) to implement the Disaster Risks Management Sub-Regional Programme under the ACP-EU Natural Disaster Facility.

Program Area: Public Information

1. Hurricane Tomas After Action Review

A two day consultation (25 & 26 July, 2011) on the national response effort following the passage of Hurricane Tomas, a Category one (1) hurricane which severely impacted Saint Lucia on October 30-31, 2011 was held.

A report was produced detailing the discussion on the actions taken by different agencies, the implications of those actions and the lessons learnt from the response effort. The workshop was sponsored by the following partners:

- United States Agency for International Development/Office for Foreign Disaster Assistance (USAID/OFDA)
- Government of Saint Lucia
- Caribbean Disaster Emergency Management Agency (CDEMA)
- Pan American Health Organisation (PAHO)

2. National Review

NEMO was provided a column in the National Review to impart information on disaster management issues. The Saint Lucia National Review is published bi-weekly by the Office of the Prime Minister.

On the first year anniversary of Hurricane Tomas, the National Review issued a Special Hurricane Tomas Commemorative Edition.



3. Tsunami Education Components

A. In 2011 the National Met Office of the Dominican Republic shared tsunami material with the delegates of the ICG/Caribe EWS VI meeting.

This material was distributed to the Secondary Schools where students study the Spanish Language.



- B. In 2011 the CDEMA CU shared tsunami material with the NEMO Secretariat. Some of the material was produced in French. This material was distributed to the Secondary Schools where students study the French Language. A small sample was also shared with the Governor General who is a fluent French speaker, as well as the French Ambassador.
- C. While in partnership with the Saint Lucia Postal Service 8,600 flyers were produced and distributed into every private postal box on the island.





D. In collaboration with AusAID and CDEMA, Public Service Announcement was distributed to 19 radio stations and 11 television stations.

The PSA addressed the English and Creole needs of the community.

Some supermarkets have eAdvertising. The PSA was also aired via this medium. As shoppers waited their turn with the cashier they were able to see the PSA.

4. General Material

Presentations were shared with the District Disaster Committees to be used as part of their education program in communities.



Events of 2011

As the New Year opened the scars of Hurricane Tomas remained etched on the Nation as it was only two months before that the storm devastated the central section of the island. In 2011 the National Reconstruction and Development Unit was established as the technical component of the recovery process, while later in 2011 the Hurricane Tomas Reconstruction and Recovery Steering Committee was formed as the strategic element.

Event 01: Surface Trough

Heavy rainfall and thunderstorms affected Saint Lucia from April 28th to 30th. Residents of were asked by the Met office to take all necessary precautions against flooding and landslides in areas prone to those hazards. Small craft operators, especially local fishermen were advised against venturing far from port because of reduced visibility. Motorists were also advised to exercise extreme caution.

Event 02: Sargassum Seaweed

The Sargassum seaweed is a plant that lives in the ocean and is of the same family as brown algae.

In July 2011 Saint Lucia and many other islands in the Caribbean experienced and invasion of the seaweed.

Recognizing the unusually large amount of seaweed being experienced with its associated potential problems, a stakeholder agency meeting (including NCA, NEMO, Department of Fisheries, Solid Waste Management Authority, etc.) was held on Friday, July 22, 2011 to address the issue.

Event 03: Dengue

In July The Ministry of Health reminded all; that Saint Lucia is still in the midst of a Dengue epidemic.

The Ministry had noted an increase in the severity of cases of Dengue Fever presenting to the health facilities. Cases of Dengue Hemorrhagic fever and Dengue Shock Syndrome were seen, especially in children. This trend was anticipated given the fact that all four serotypes of dengue fever have been recorded in Saint Lucia in the past.

Event 04: Emancipation Wave

On Friday 29th July, 2011 an upper level trough continued to produce showers over the northern half of the Lesser Antilles. Then a large Tropical Wave accompanied by a well defined low pressure system located about 1150 miles or 1851 kilometers east-southeast of the Lesser Antilles. This disturbance continued to show signs of organization and environmental conditions were conducive for gradual development.

This was enough to activate the National Emergency Management System.

There was much debate as the Prime Minister gave instructions as to the closing times of the many activities planned for Emancipation Day.

Event 05: Tropical Storm Emily

Tropical Storm Emily moved slowly through the Caribbean region during the period July 29 to August 4, 2011 bringing heavy rains to Saint Lucia and the Eastern Caribbean. Heavy rains caused flash floods and landslides, but overall, minimal damage and no deaths were reported.

Saint Lucia was impacted in the formative stages of Emily whilst it was still a low pressure system and was closely monitored in the event that it quickly developed. Flooding was reported in several areas of Castries and Vieux Fort but the waters receded rapidly.

Event 06: Earthquake

A magnitude 5.3 earthquake occurred to the east of Saint Lucia at 12:01 am (04:01 am UTC) on 7 August 2011. Reports from the Seismic Research Centre located the epicentre of the event at 13.84°N, 60.31°W, and at a depth of 38km.

Reports confirm that shaking intensities ranging from II to IV on the Modified Mercalli Index were experienced. An online poll was run:

Question: On 7th August, 2011 at 12minight Saint Lucia was jolted by a 5.3M Earthquake. Did you consider that a Tsunami was possible?

Results:

Choices	Votes	%	1 reply
Yes	5	27	
No	13	72	
Huh?	0		

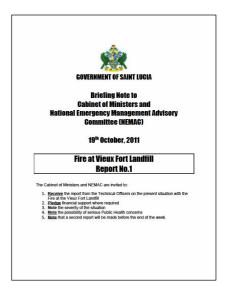
Event 07: Tyre Fire: View Fort Landfill

On Sunday 16th October 2011, about 4:30pm, the Fire Service responded to a fire call at the Vieux-Fort Landfill. The burning pile of approximately two hundred thousand (200,000) tyres burned for two and a half weeks.

Due to the potential release of toxic chemicals, the tyre fire emergency was regarded as a **HAZMAT** incident.

On 2nd November, the Saint Lucia Fire Service declared that the fire had been extinguished.

The solution of drowning the fire has presented the possible consequences of contamination of the rivers and marine areas with possible Pyrolytic Oil¹. The hole which contains the material is 8ft deep and set on bedrock. The nearest water way is approximately 30ft away and leads to the Mankote Mangrove²



Having extinguished the fire the response moved into a phase which involved monitoring of the environment.

Pyrolytic oil is basically a free-flowing tar that contains naphthalene, anthracine, benzene, thiazoles, amines, ethyl benzene, toluene, and various other petroleum hydrocarbons, as well as various metals such as cadmium, chromium, nickel, and zinc (Horrigan, 1999).

Other environmental concerns associated with pyrolytic oil include contamination of soil and water, including surface water and groundwater. Pyrolytic oil is capable of traveling significant distances over land depending on local topography, migrating downward through soil into groundwater, and entering surface waterways.

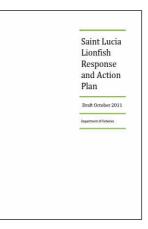
¹ Pyrolytic Oil -- Pyrolytic oil is generally formed during the equilibrium/pyrolysis combustion stage of a tire fire, in which fuel combustion and heat production equalizes, combustion produces enough heat to consume most of the combustion products, and downward pressure of the tire pile causes an increase of run-off oil flow (USFA, 1998).

² The Mankote mangrove is Saint Lucia's largest mangrove and stretches over 40 hectares of land. The mangrove is also the main source of food for the natural fish nursery of Saint Lucia. The mangrove is owned by the Crown; and shelters varied mangrove species like: Rhizophora mangle, black Avicennia germians, and Avicennia schaueriana. Besides these white Laguncularia racemosa, and buttonwood Conocarpus erecta are also found.

Event 08: Invasive species: Lion Fish

In October the Department of Fisheries confirmed the presence of Lionfish in Saint Lucian waters. The invasion of the Indo-Pacific Lionfish within the Northeastern Atlantic and Caribbean has been progressively affecting the region over past years. The lionfish has a voracious appetite for eating juvenile reef fishes and it reproduces rapidly in new areas once it settles in. Based on a sighting and photographic record submitted through one of the Sandals dive centers, the Department of Fisheries verified the presence of lionfish in the waters of Saint Lucia, as sighted on a reef off the Ciceron area.

The early notification of the presence of the Lionfish allowed the Department of Fisheries to activate the Lionfish Taskforce and its response plan.



Event 09: Morne Sion Tragedy

On the evening of 10th November, 2011 the Nation was faced with the worst vehicular accident in its recorded history. The nineteen persons on board who were all from the community of Dugard were returning home after a funeral in Choiseul. The bus with all nineteen on board plunged down a 120 foot precipice at Morne Sion.

Officially the final count stands at seventeen dead and two missing.

Event 10: Soufriere Flash Flood

On 29 November, 2011, heavy rain from a Trough System caused flash flooding in the Town of Soufriere in particular the area of Wingsville.

- 1. The detour out of Soufriere towards Castries was heavily impacted.
- 2. Construction works on the Soufriere Bridge together with the submerged detour cut the Town off from Canaries and by extension Castries for a short while.
- 3. The front of the Soufriere Hospital was mildly impacted.

Next Steps

Staffing

To achieve stage one of the staffing of the Secretariat with the addition of:

- 1. Social Transformation Officer (re Field Officer) (1) G13
- 2. Mass Crowd Event Officer G12
- 3. Business Continuity Officer G12
- 4. Telecommunications Officer G12
- 5. GIS Specialist G9

Presently the Secretariat of the National Emergency Management Organisation operates with a Director, a Deputy Director, Training Officer, Inventories Officer, Administrative Assistant, a Maintenance Officer/Cleaner and a Driver/Office Assistant. Of these only the Director, Deputy and Training Officer are Disaster Management Technicians.

This level of staffing is not sufficient to cope with the demands posed by the Disaster Management Act of 2006 or the National Emergency Management Plan or by the general disaster management process in order to reduce vulnerability and increase the level of preparedness to face, both efficiently and adequately, all the hazards that Saint Lucia is prone to. The personnel NEMO currently has, although highly qualified and with experience in disaster management, is not enough to conduct the disaster management process of the country.

Strategic Planning

- 1. Complete the Hurricane Tomas After Action Report and distribute.
- 2. Saint Lucia is in the process of adopting a *Five Year Strategy (2012 2017) for Disasters* has been submitted to Cabinet for adoption. The kernel of the strategy is the need for the cadre of technical staff to be increased.
- 3. The *Proposed Five Year Strategy (2012 2017) for Building Resilience to Tsunamis* shall be presented for discussion and adoption to the members of NEMO.
- 4. Discussion paper to be completed on the merits of Saint Lucia consideration for the hosting of the Caribbean Tsunami Secretariat.
- 5. The Bureau of Standards shall complete the process of the adoption of ISO Standard for Marine Signage to include tsunami.
- 6. Consideration to participate in the UNESCO Public Participation Programme 2012

Procedures

- 1. Under the guidance of the Project Coordinating Unit components of the National Emergency Management Plan shall be reviewed.
- 2. Discussions shall continue with the Ministry of Health and the Ministry of Agriculture to ensure the completion of the sector disaster plans.
- 3. The Secretariat shall continue its support of the Ministry of Education's School Safety Program.
- 4. The Tsunami Focal Point and his team shall revise the Met Emergency Procedures to include tsunamis.
- 5. The test advisories from the Pacific Tsunami Warning Centre have begun to arrive in a more regulated manner; as such the Standard Operation Procedures for TESTS shall be used in 2012.

Simulation Exercises

Hewanorra International Airport

The 2012 Airport Exercise is set for Hewanorra International as the 2011 Exercise was hosted by George Charles Airport.

Caribe Wave 2012

The occasion of CaribeWave12 shall be used for an orientation of the Staff of the National Emergency Management Organisation Secretariat on the island's tsunami

protocols. The test advisories from the Pacific Tsunami Warning Centre arrive by fax as well as email and it is important that the Staff is familiar with the actions that should be trigged by the arrival of an advisory.

Conclusion

In 1991 the Heads of CARICOM in their collective wisdom used the Pan Caribbean Disaster Preparedness Project as a stepping stone for the launching of the Caribbean Disaster Emergency Response Agency³. Sixteen CARICOM States, including Saint Lucia, established National Disaster Offices. Though many offices started with one Coordinator and one Secretary, over the years some offices have increased staffing while some have not.

Twenty years later, the resources that were first injected into the National Disaster Offices remain at the same levels while the demands on the Offices have increased significantly.

This model is no longer sustainable.

In 1991 the primary focus was that of response to hurricanes. Twenty years later the focus is all hazards – all phases – all people⁴. The concern is no longer solely hurricane focused, and the mandate to be prepared now includes: pandemic influenza, cholera, earthquake, tsunami, volcanic eruption, mass crowd events, mass causality incidents and the list goes on.

As with many other Member States of CDEMA; Saint Lucia has arrived at the stage where the ability of the Office to function is being so compromised that coordination will be severely impacted to the point of paralysis.

A new injection of resources (human, financial, equipment) is needed that will sustain the work program of the office for the next twenty years. Without this the disaster management program of Saint Lucia and by extension the region, shall become stunted.

Director NEMO 13 March, 2012

³ In 2010 CDERA transitioned into CDEMA.

⁴ Comprehensive Disaster Management Strategy

Committee Reports for 2011

Including Liaison Officers

Introduction

In keeping with the Disaster Management Act No. 30 of 2006, the members of the National Emergency Management System are provided with the opportunity to record their achievements for the past year.

The Disaster Management Act 30 of 2006 states...

Annua

Report

10.— (2) The Director shall submit the Annual Report to the Minister and shall, on or before 1st June in every year, publish the Annual Report in the Gazette.

Below are the reports of the members:

National Disaster Committees

Supplies Management Committee

Name of Reporting Officer: Lt. Col. André P. Mathurin - Chairman

ACHIEVEMENTS

- 4. During 2011 the Management Committee held three meetings.
- **5.** One of these meetings was held for the purpose of reorganizing the Master Committee into sector committees within the Supply Management Committee e.g. Faith Based, Uniformed etc.
- **6.** The Committee also held a review of its performance for Hurricane Tomas. At this meeting members expressed their concerns regarding the breakdown of operational procedures as it pertains to the National Emergency Management Plan.
- 7. Committee members attended the National After Action Review of Hurricane Tomas.

CHALLENGES

The committee identified the following training needs;

- SUMA;
- Shelter Management
- Warehouse Management

WAY FORWARD

The committee will work with the NEMO Training Officer to address the training needs identified earlier in this report.

Transportation Committee

Name of Reporting Officer: Dorothy Agard - Chairlady

ACHIEVEMENTS

During the year the Committee attended the following:

- Sargassum Seaweed meeting which was held on Friday 22nd July, 2011. This meeting was
 held to discuss and address the issue of the invasion of the seaweed which was being
 experienced by Saint Lucia and the other Caribbean Islands. A site visit was also done.
- A meeting was held to discuss the Invasive species the Lion Fish which presence was confirmed in Saint Lucian waters in October.

EMERGENCY RESPONSES

The committee responded to a fire call on Sunday 16th October, at about 4.30 p.m. at the Vieux Fort Landfill, where a pile of approximately two hundred thousand (200,000) tyres burned for two and a half weeks.

CHALLENGES

The Committee is faced with the poor maintenance of vehicles which are used during the times of disasters.

RECOMMENDATIONS

- Permanent Secretaries and Heads of Departments are to make sure that vehicles
 are available when needed for emergency responses. They are to ensure that the
 vehicles are fueled, with proper tyres and are road worthy.
- Vehicles air marked for emergency responses should be sent to the Ministry of infrastructure, Ports Services and Works to get a complete service and review and a report issued at the of the servicing indicating the road worthiness of the vehicle.

WAY FORWARD

In order to chart the way forward the committee meeting of all transportation stakeholders will be scheduled to discuss their input in times of national disasters, and transportation contact revised and updated.

Telecommunications Committee

Name of Reporting Officer: Telecoms Team

ACHIEVEMENTS

1. New repeater and link transceiver for the north was ordered in July and was installed.

- 2. The base station and radio of the Soufriere Disaster Committee was relocated to satellite warehouse from Government district office over the period of Nov/Dec
- 3. Routine maintenance continued to be performed on all district base station radios.
- 4. Collaboration with NTRC and Red Cross continued on Emergency Communications Project

PREPAREDNESS

Training

Through the ACP-EU Facility for Natural Disaster Management a number of community persons participated in a Radio Operating Training Program which was then followed by an examination.

Simulations

Region Rap took place on June 17, 2011 at 1030hrs to 1430hrs EST. Exercise Region Rap is a telecommunications exercise conducted annually to test telecommunications procedures, plans and networks of National Disaster Organizations across the Region. It is designed as an exercise which can provide the platform for advancing the region's telecommunications arrangements. All methods of communications are tested for normal and emergency communications.

Annual Airport Simulation which took place at George Charles Airport presented an opportunity for the participants to utilize two-way radio communications. During the simulation exercise radio communications were employed by the members of evaluating team of NEMO which enabled them to monitor and maintain contact among themselves.

CHALLENGES

- The NEMO Secretariat does not have a Telecoms Officer; the present program is being addressed solely by volunteers. This continues to impact the progress of Saint Lucia's telecoms program.
- The repeater network does not cover the island adequately. There remain significant areas of the island that are "dead zones"

WAY FORWARD

- The telecoms team remains hopeful of the assignment to the NEMO Secretariat, of a full time telecoms officer.
- Collaborate with the Project Coordinating Unit on the Saint Lucia Hurricane Tomas
 Emergency Recovery Loan with the World Bank to improve/enhance the capability of the
 emergency communications network
- The team will seek to address the need for a regular testing of the network.

Hospitality Crisis Management Unit

Name of Reporting Officer: Committee Chair

ACHIEVEMENTS

Regional Monitoring and Evaluation System for Disaster Risk Management and Climate Change Adaptation in the Caribbean Tourism Sector

Saint Lucia is presently taking part in the RMES DRM CCA.

The Caribbean Disaster Emergency Management Agency Coordinating Unit (CDEMA CU) received financing from the Inter-American Development Bank (IDB), for the project Regional Monitoring and Evaluation System for Disaster Risk Management and Climate Change Adaptation in the Caribbean Tourism Sector for the revision of the Regional Disaster Risk Management Strategy (DRM), Results Framework and Action Plan for the Tourism Sector in the Caribbean to incorporate Climate Change Adaptation.

Saint Lucia holds the Chair of the Regional Committee

Business Continuity Planning Workshop

A total of 35 people were trained in the discipline "Business Continuity Planning". Workshops were conducted in August and October of 2011. The participants came from the following sectors:

- a. Small Properties
- b. Travel agency/tour operator
- c. Sites and attractions
- d. Dennery sea-side vendors and other participants under the European Funded SFA2007 CBEAT Eco-Agro Tourism Project

The participants are currently working on formulating own Business Plans for endorsement.

The Ministry has been successful thus far in ensuring that Small Property Owners BCP in place before an endorsement for placement on SLTB's website is given.

PREPAREDNESS

Earthquake Preparedness Workshop - March 2011

• "Implementation of expansion of the Earthquake Readiness Capacity Building (ERCB) Initiative

CDM Initiative - August 2011

• To answer survey issued by JICA, the funding body for the Corinth/Bois D'orange Flood Mitigation Project

• To observe the location and installation of Early Warning Systems (EWS) for Flooding along the Corinth/Bois D'orange River with the JICA Officials

Cholera Workshop "Cholera Preparedness in Caribbean 2011" - August 2011

 To inform participants of Cholera and what mechanisms are in place to deal with an outbreak

Dengue Fever Alert - August 2011

• To inform the various stakeholders of the Dengue crisis and what preventative measures can be taken to control and minimize impact Attended and awareness meeting on the Epedemic

Training

• Full Scale Simulation exercise at George F.L Charles Airport – conducted by Civil Aviation

PUBLIC EDUCATION

Following the report and enquiry into the five (5) persons who had become infected with dengue fever virus after staying at Windjammer Landings, the Ministry of Health, the Bureau of Health Education, and the Ministry of Tourism and Civil Aviation worked collaboratively with all tourism agencies and organizations in conduct of sensitization meetings with their membership on Cholera and Dengue Fever.

Follow Up has shown that the SLHTA and the STDC had meetings with their members in order to provide them with information on the Dengue Fever and Cholera.

CHALLENGES

Once again a limited budget impacted directly on the number of participants who were invited to attend training in Business Continuity Planning.

WAY FORWARD

- 1. In keeping with the requirements of the CTO/CDEMA/CROSQ Project the Committee wishes to endorse the recommendation for a Tourism Disaster Officer. This person would have the full responsibility for the coordination of disaster management issues in the tourism sector. Presently the role of Liaison Officer though a requirement of the Disaster Management Act, is only a part time duty as the Officer's workload will permit.
- 2. With the support of two other staff members on the team, it is hoped that the goals set out to be achieved will be accomplished. The tasks set out for this year are as follows:

- a. Risk Management Workshop for Small Tourism Enterprises
- b. Risk Management for Marine Base Operators and Sites and Attractions
- c. The formulation of the Visitor Safety and Security Network (VSSN) and its implementation (provided that funding is granted by Ministry of Finance or any other source of funding)
- d. Review properties enlisted on the SLTB website for endorsed BCP's
- 3. Team members responsible for formulating and implementing the Business Continuity Plan are:
 - a. Ms. Deepa Girdari
 - b. Ms. Sophia Pierre
 - c. Mr. Imran Emmanuel

District Disaster Committees

Laborie Disaster Committee

Name of Reporting Officer: Ulric Alphonse - Chairman

PREPAREDNESS

- 1. at least six (6) community persons participated in a Radio operating training program and took the examination
- 2. Chairman participated in a Disaster Risk Reduction Leadership and Strategic Planning Training Course in the BVI
- 3. participation in a Virgin Atlantic Emergency procedures workshop at Coconut Bay, Vieux Fort
- 4. In collaboration with the Laborie Co-operative Credit Union, submitted a proposal for funding of a rain water harvesting project to USAID. (awaiting response)
- 5. submitted a proposal to NEMO for rehabilitation of roof of satellite warehouse to facilitate rain water harvesting. (awaiting response)

PUBLIC EDUCATION

- 1. School Visits: Committee members conducted sessions at all schools in the Laborie area on Tsunamis and other disasters. Printed material was also distributed.
- 2. Committee meetings were held which included discussions on various aspects of disasters and disaster management
- 3. Committee was part of planning for Jounen Kwéyòl celebrations in Laborie

EMERGENCY RESPONSES

1. distribution of water and other supplies to vulnerable individuals (post Tomas)

CHALLENGE

1. Finance: the lack of finance inhibits the independence of the Committee and its ability to do more to help reduce the negative consequences of any impact. The Committee will seek to activate its fundraising sub-committee to source required funding for various projects and activities.

WAY FORWARD

For some time now, the issue of a disaster plan for the community has been in the pipeline. In this ensuing year, all attempts will be made to ensure that this materializes.

It is apparent that the issue of disasters is now foremost on many people's minds as we have received several requests from residents to be part of the Committee. Consequently, we will make the Committee more visible, vibrant and 'attractive' to ensure full participation by all.

Gros Islet Disaster Committee

Reporting Officer – Jennifer Gaston, Chairlady

PREPAREDNESS

The committee ensured that the following were prepared:

- 1. MOU Business houses/Gas Stations
- 2. Listing of Shelters/Supplies
- 3. Communication/Ham Radios GI Fire Station
- 4. HQ in Emergency GI Fire Station
- 5. Plans for the Corinth, Rodney Bay, Cap Estate & Monchy
- 6. Town Hall/Community/NEMO Meetings
- 7. Working with the Gros Islet Town Council re preparation

The Committee continues to work with Ms. Garcia of JICA and NEMO on the Corinth Flooding issues and the Evacuation plan for the residents. Meetings with the Committee and the Residents were held in 2011 and individuals and contact information have been confirmed for the Early Flood Warning System which has been installed.

The Committee conducted meetings in the different communities the Gros Islet Constituency to update and forward information on:

- 1. Evacuation process
- 2. Shelters
- 3. Waves and effects
- 4. Tree trimmings

Visits to all Shelters within the Districts were done to ensure all were in place to accommodate persons in the event of a Disaster as well as meetings with the Shelter Management Team. All School Principals and Church Administrators must be commended on their co-operation regarding the use of their facilities.

The Committee participated/assisted NEMO in the following:

- 1. International Cricket Members were onsite to ensure assistance in the event of a Disaster.
- 2. Saint Lucia Jazz Festival
- 3. Mass Crowd/Public Events within the Gros Islet Area

MEETINGS & TRAINING:

The Gros Islet Disaster Preparedness Committee participated in a number of training and meetings held by NEMO during the year 2011. The Committee was represented by its members in the following:

- 1. Supplies Management
- 2. Assessment Course
- 3. Do Assessment/Evaluation trip
- 4. Oil Spill committee
- 5. Meeting with CDMA re Corinth Flood Project
- 6. Meetings with the JICA Consultant regarding the Flooding in the Corinth District
- 7. CADM Workshop in Barbados Thadius Montoute
- 8. CADM Phase 2 Annual Seminar Barbados Jennifer Gaston
- 9. CADM National Committee Meeting Saint Lucia
- 10. DRR Leadership and Strategic Planning course BVI Jennifer Gaston
- 11. DRR Leadership and Strategic Planning Course
- 12. JICA 4th Meeting in Barbados Thadius Montoute
- 13. CADM National Committee Meeting Saint Lucia
- 14. Telecoms Training -2 members
- 15. CDEMA Safe City Workshop Trinidad Thadius Montoute & Ansley Fontenelle
- 16. CDEMA Conference on comprehensive Disaster Management, Trinidad Angela Alphonse
- 17. JCC Meeting Barbados-Jennifer Gaston
- 18. CADM Meeting in December

CHALLENGES:

The Committee is still face with the following challenges:

- 1. Flooding in the Gros Islet, Rodney Bay, Bois d'Orange and Corinth community. Due to the lack of drainage (cleaning of drains), residents continue to experience flooding with heavy rains.
- 2. The lack of preparedness by residents are also an issue as some damages are done through lack of tree trimming, drain cleaning and ensuring that roofs are secured.
- 3. The Committee recommends that the different Government Agencies/Ministry ensure that these issues are dealt with.

The members of the Gros Islet Disaster Preparedness Committee as part of its year programme undertook trips through the Constituency of Gros Islet to access areas which are vulnerable to

damage due to heavy rains or Hurricanes. The Committee would like to focus on the major flooding which is still affecting the residence of Bois d'Orange, Caye Manage and Corinth with assistance from Government and other Agencies. The Committee will continue with its education programme to update and inform residents on plans and process.

WAY FORWARD:

- 1. The Committee wishes to endorse the recommendations from the Review of the Response to Hurricane Tomas, namely: that the time has come to increase the technical staff of the NEMO Secretariat.
- 2. Assessment trips will continue in the preparations and a report will be submitted to NEMO regarding damages and needs. Meetings with the District Representative and other Organisations will be organized to highlight the issues and work on priority areas.
- 3. The Committee continues to have its regular meetings every 1st and 3rd Wednesday of the month during the Hurricane Season and the 1st Wednesday of the month outside of the Hurricane Season. Communications is done via emails and presentations to update members of plans and issues affecting the District. The Committee would like to extend its Thanks and Appreciation to its members for their commitment and all the Business and Community individuals who have assisted in ensuring that it can function effectively.

Babonneau Disaster Committee

Reporting Officer -- Ms. Sarah Jules - Committee Chairperson

ACHIEVEMENT

- 1. Sensitization programme was undertaken Target audience came from communities, schools churches and health clinics.
- 2. Contracts were renewed with shops, service providers and heavy duty equipment owners
- 3. Election of new executive
- 4. Meetings with Community Disaster Response teams in Des Barras, Boguis and Balata. Established common understanding that groups will work together to better serve communities.
- 5. Held meetings with principals of the Balata Primary and the Babonneau Secondary schools. Meetings focused on representation on the local committee as well as access to the schools should shelter be required after an impact.

PREPAREDNESS

Training

No training was undertaken. Names were submitted for some training in telecoms but the training did not materialize.

Simulations Exercise

The Community Disaster Response teams did their annual simulation with the Saint Lucia Red Cross.

PUBLIC EDUCATION

This took the form of a public outreach programme targeting the schools, communities, churches and health clinics. The Community Disaster Response Teams went house to house and prepared the family disaster plan with households.

EMERGENCY RESPONSE

In the early month of 2011 the committee continued its response to Hurricane Tomas. Food and water distribution was done in the various communities. Committee also distributed beds, mattresses and identified persons who suffered losses for assistance with building materials. Persons were referred to the various agencies for assistance with school supplies and others.

CHALLENGES

- 1. Poor attendance at meetings
- 2. Persons are not ready to take up positions on the executive (those who are willing do not always have the ability to do what is required of them)
- 3. Putting the sub committees together
- 4. In responding to Hurricane Tomas, the committee realized that some persons did not pay much attention to the sensitization programme. Their preparedness level was not what it should be.

RECOMMENDATIONS

- 1. Educate members on the importance of their role as committee members.
- 2. Sensitization programme to target communities at large and also households especially vulnerable households.
- 3. Membership drives to target persons who can be effective on the executive.
- 4. Training for executive members

WAY FORWARD:

Apart from its normal activities for 2012, the Committee would like to:

- 1. Have two additional CDRTs operational in the sub communities and also to have at least two sub committees.
- 2. Prepare and document its operations manual
- 3. At least two sub committees organized.
- 4. Work plan for 2012 include:
 - a. Safety campaign in at least 2 communities (to include use of fire extinguishers)
 - b. Tree trimming activities with community members
 - c. Cleaning of drains and culverts in collaboration with the District Council
 - d. Capacity Building in disaster response
 - e. Safety campaign for residents near gas station

Liaison Officers

Ministry of Education

Name of Reporting Officer: Mrs. Sisera N.P. Simon

ACHIEVEMENTS

The Ministry of Education has attained a number of significant achievements in the year 2011, which are summarized as follows:

- 1. Formulation of a Draft National School Safety Policy;
- 2. Consultations on the Draft National School Safety Policy were held with principals and other major stakeholders in Districts 1, 5, 7 and 8;
- 3. Provided guidance to schools in the formulation of their School Emergency Plans- twelve (12) schools thus far have developed/reviewed their Emergency Plans.

PREPAREDNESS

During this reporting period, the Ministry of Education through its Liaison Officer participated in the following Capacity Building exercises:

- 1. Earthquake Readiness Capacity Building Workshop
- 2. Emergency Response Planning
- 3. School Safety Training Course
- 4. National Consultation on Agency Response to Hurricane Tomas
- 5. School Safety Planning (Belize)

The Ministry also participated in two sensitization workshops organized by National Emergency Management Organization (NEMO) in collaboration with the Ministry of Health namely:

- 1. Dengue Epidemic Sensitization Workshop for Stakeholders
- 2. Risk Communication: Cholera Preparedness and Response in the Caribbean
- 3. International Health Regulations Consultation

The Internal Disaster Committee of the Ministry of Education held meetings during the course of the year. The need to continue sensitizing staff on the Emergency Standard Operating Procedures (SOPs) for the Ministry and the finalization of the Continuity of Operations Plan were two major priorities for the Committee. In October 2011, the Continuity of Operations Plan (COOP) was circulated to all Heads of Department for comments. The finalized draft of the COOP will be submitted to NEMO for validation.

PUBLIC EDUCATION

Lunchtime presentations

The Ministry of Education and Culture initiated monthly Lunchtime Presentations throughout the year. These presentations were brief, informative, interactive and informal half hour sessions for all

members of staff. In an effort to heighten awareness and to promote the importance of disaster preparedness, staff of the Ministry participated in a presentation on the topic "Natural Disasters—Tsunamis". This session was facilitated by Ms. Dawn French, Director National Emergency Management Organization.

EMERGENCY RESPONSES

Staff of the Ministry responded to two emergency evacuations of the Francis Compton Building. Although these were false alarms in both instances, staff members responded in less than five (5) minutes. The Internal Disaster Committee plans to continue sensitizing staff on the Ministry's Standard Operating Procedures.

The MOE also responded to the following emergencies:

Dengue Fever Response

The Ministry of Education was confronted with the challenge of mitigating the spread of Dengue Fever within schools. The Ministry for its part embarked on a plan of action to combat the spread of the Dengue Disease at the school level through the following activities:

- 1. Dissemination of information to sensitize principals, teachers, students and parents about the disease—Schools were encouraged to take proactive measures in an effort to eradicate potential breeding sites of the Dengue Mosquito;
- 2. Presentations by Officers from the Ministry of Health to Education Officers and Principals at the district level;
- 3. Fogging exercises were undertaken at all schools through the support of the Ministry of Health.

Fire at Vieux Fort Landfill

As a result of a tyre fire emergency-HAZMAT incident at the landfill in Vieux Fort, the Plain View Combined and Vieux Fort Comprehensive Secondary (Campus B) were closed for the period October 28 to November 4, 2011. The affected schools were re-opened on November 7, 2011.

Emergency Shelters

CARICOM Brazil Living Schools Programme

The Ministry of Education in collaboration with NEMO and the Caribbean Disaster Emergency Management Agency (CDEMA) are piloting the "CARICOM Brazil Living Schools Programme" at the Anse Ger Secondary School. This Programme involves: (1) the retrofitting of a model school by upgrading the facility through the enhancement of one aspect of the physical structure; (2) Capacity Building in disaster risk management through the development of a Knowledge Management Toolkit targeting children 5 to 16 years. Under this Programme, two shower facilities with change rooms have been installed at the pilot school. The Capacity Building component of this Programme is ongoing.

CHALLENGES

Time Constraints- Principals need to schedule time to pursue and address matters of school safety and emergency planning.

Budgetary Allocation- there is need for a Contingency Budget at the Ministry and school levels for disaster risk reduction.

WAY FORWARD

In 2012, the Ministry of Education will institute measures to generate greater awareness of disaster risk reduction. In this regard, the Ministry will focus on the following:

- 1. Conduct training and workshops in school safety for principals and teachers;
- 2. Ensure that every school develops and make available emergency and evacuation plans;
- 3. Finalize the MOE Continuity of Operations Plan and submit to NEMO for validation;
- 4. First Aid/ CPR Training for all members of the Internal Disaster Committee;
- 5. Conduct school visits to provide the requisite support in the formulation of Emergency Plans;
- 6. Finalize the draft National School Safety Policy.

Ministry of Agriculture/Agriculture Services

Name of Reporting Officer: Anthony Thomas, Liaison Officer

PREPAREDNESS

Capacity building

- 1. The Ministry in collaboration with F.A.O. conducted training in food safety for its technical staff
- 2. The Ministry through its information unit sensitized the public of the invasive species of the Flora and Fauna of the Country.
- 3. The Ministry is in overall supervision and control of invasive species coming into the country through the Plant and Animal Quarantine unit.
- 4. The Ministry produced policies for internal, for wild life, drought and hurricane disaster management
- 5. The Ministry has requested assistance in controlling and managing of the Black Sigatoka disease which began in 2009 and confirmed in January 2010.

PUBLIC EDUCATION

- 1. The Ministry of Agriculture has and continues to facilitate meetings with Farmer Organizations, Livestock Enterprises and Producers on issues relating to plant disease management, food security, hurricane, drought and invasive species and biodiversity in agriculture.
- 2. The Ministry in collaboration with the Food and Agriculture Organization (F.A.O.) conducted Hazard Analysis Critical Control Point (HACCP) training on food safety with

farmers and stake holder in Food Processing Production. Training was given in Agro Processing for hurricane situations at Fond St. Jacques e.g. how to dry food, how to make individual serial packs and how to make a bouyon pack (which simply requires adding water to the content of the pack).

- 3. It continues to inform and facilitate its clienteles with FAR Concession Education and information via its web site (Maff.egov.lc). It also provides access to the Concession Forms.
- 4. Ministry of Agriculture has sensitized farmers on various ways of safeguarding crop and livestock prior to disasters via the media
- 5. Posters on disaster preparedness have been placed in strategic places throughout the building and its offices.

EMERGENCY RESPONSES

Post Tomas

- 1. Financial assistance and inputs was given to farmers who were affected by post Tomas by the Government of Saint Lucia and the Government of Taiwan.
- 2. Assistance has been provided by the Australian Government for the stabilization of river banks and slopes, for reforestation and for the purchase of early warning systems.
- 3. Farm Access roads were repaired.
- 4. Desilting was done for some rivers e.g. the Bexon river
- 5. The Ministry is still seeking assisting in providing and rebuilding its damaged feeder roads, desilting the rivers and rebuilding the river banks.
- 6. In some areas the soil has not settled and upon it settling the work in those areas will continue.

CHALLENGES

- 1. The Ministry now has to further develop its technical staff (human resource), improve financial resources since it now has Food Production and Rural Development in its Portfolio.
- 2. The Black Sigatoka which is affecting the banana and plantain family in the Caribbean and is now in Saint Lucia has to be contained. There is need to quickly diversify into other crops, at the same time continue to sustain the domestic market while expanding exports of other crops.

THE WAY FORWARD

- 1. It hoped that the Ministry along with partner agencies can meet to embark on the best method to deal with the challenges
- 2. It is hoped that an increased budget will help prepare and alleviate some of the conditions that are plaguing the farmers through relief, and research
- 3. Several agencies have expressed interest in managing the Black Sigatoka e.g. CIRA (a French Research Agency) Caribbean Agriculture Research and Development Institute (C.A.R.D.I.) and F.A.O.
- 4. The role of Liaison Officer should be given more prominence.

Ministry of Health

Name of Reporting Officer: Chief Medical Officer

ACHIEVEMENTS

- 1. The Ministry of Health has renovated fifteen (15) Wellness Centers under the ERP Economic Reconstruction Programme.
- 2. Under the World Bank's Second (2) Disaster Management Project four (4) additional Wellness Centers namely Laborie, Vieux Fort, Monchy and Ti Rocher Castries were retrofitted making them more resilient to disasters such as hurricanes.
- 3. Received a number of donations from Cruise Ships
- 4. Construction commenced on New General Hospital

PREPAREDNESS

Training

- 1. The Ministry of Health had two officers attend training in "Safe Hospital" conducted by the Pan American Health Organization in Barbados.
- 2. Cholera Preparedness, Workshop and Training
- 3. Cholera Risk Communication Workshop
- 4. One officer attended Health Disaster Coordinators meeting in Mexico
- 5. Advanced Cardiac Life Support (ACLS) and Basic Life Support (BLS) training for Response team
- 6. Clinical, laboratory and other staff re-trained on the identification and treatment of dengue, dengue hemorrhagic fever and dengue shock syndrome
- 7. Four Officers were trained in Water Quality monitoring at CEHI in response to Hurricane Tomas.
- 8. Officer of the Department of Environmental Health attended a 3 day climate change workshop in relation to disaster preparedness.
- 9. A (3) day workshop on warehouse management in disaster situation and meeting to review Ministry of Health Emergency Response policies and plans was held where members of the Department of Environmental Health attended.

Simulations

1. For the reporting year 2011 the Ministry of Health had many officers who participated in the National Simulation exercise; the scenario consisted of an aircraft crash on water, held at Vigie.

PUBLIC EDUCATION

- 1. The Bureau of Health Education and the Environmental Health Department continues to educate the public on health matters as they arise.
- 2. For the reporting period there was an extensive public education drive on Dengue epidemic and leptospirosis with the launch of the "Lets Clean Up" Campaign.
- 3. Health Education on the tyre fire in Vieux fort.

EMERGENCY RESPONSES

- 1. Medical and Environmental assistance during the tyre fire in Vieux fort
- 2. Intermittent medical evacuation of critical patients to Martinique

CHALLENGES

- 1. There is still no post of Disaster Officer within the Ministry of Health.
- 2. Limited Human resource
- 3. Financial limitations
- 4. Increasing vector borne disease epidemics due to the effects of climate change
- 5. Decreased capacity due to the loss of Dennery Hospital and the housing of St. Jude Hospital in a stadium.

- 1. The Ministry of Health is aiming at retrofitting all health facilities in an effort to make them more resilient in the face of disasters such as hurricanes and earthquakes.
- 2. Efforts are continually being made to improve on the relationships that the Ministry has with the private sector to establish a better line of credit with the private businesses during times of disasters.
- 3. As every year national simulated exercises are carried out, the Ministry is ready in 2012 to participate and render assistance.
- 4. In an effort to better prepare officers, MOH is planning to undergo training in the areas of Triage, First Aid/CPR, Systems Command and Control, Mass Casualty Management / Mass Crowd Events, Capacity Building, basic radio communications training and EOC Management training.
- 5. As done in the past the Ministry is in support of the annual national cleanup campaign and will be taking part.
- 6. As part of the ongoing drive to prepare the public the Ministry will be making efforts to sensitize the public on disaster preparedness and mitigation strategies.
- 7. The Ministry of Health will be working with the other occupants of the Sir Stanislaus Building to develop a concise Disaster Preparedness Plan for the building.
- 8. Review of Department of Environmental Health disaster response plan

Special Reports

NEMO Auxiliary Corps

Name of Reporting Officer: Fabian Lewis - NAC Member

ACHIEVEMENTS

On November 5th 2011 members of NAC took part in the annual cleanup of the community. The area was the particular section of the Sir. John Compton Highway from Napa auto parts to the roundabout at the waterfront was chosen, NAC members armed with gloves and garbage bags took to the highway in a frenzied cleanup.

PREPAREDNESS

Training

- Members of NAC were participants in a two-day Tsunami workshop held at the NEMO office.
- NAC had one member who attended training in Emergency Operations Center (EOC).

Simulations

The year 2011 presented a historical milestone in that the first ever simulation of an aircraft crash on water was held at Vigie. NAC played a substantive role as evaluators of the simulation. Members of NAC where strategically placed at the agencies involved in the simulation where they observed and recorded information such as the response times, the handling of relevant information and the short falls to name a few. NAC members presented evaluations and noted observations at the general debriefing session of all stakeholders, held at the Bay Gardens Inn.



PUBLIC EDUCATION

• There were no public education sessions which NAC was a part of.

EMERGENCY RESPONSES

• During the hurricane season of 2011 although an actual response was not required, members of NAC were on standby at the NEMO office in the event they were needed.

• During the aftermath of hurricane Tomas in 2010, large amounts of data were gathered which needed sorting before entering into various electronic databases. Members of NAC were present at NEMO assisting in the collation and inputting of information into the various databases.

CHALLENGES

NAC was met with a few challenges in the year of 2011; some of these challenges were that of its own member body and lack of training in certain areas.

NAC is in the process of correcting the issues that present a challenge with the member body and has identified areas for training to better prepare members.

WAY FORWARD

- 1. The year 2012 is nominated as the "Year of the Volunteer" NAC has been charged with the task of organizing an awards night for volunteers; the date is set with the month of December 2012. Preparations are on the way to ensure that it is a huge success.
- 2. As NAC has done in previous years, members of NAC will be taking part in the annual community cleanup, the area of cleanup is yet to be decided.
- 3. In an effort to better support NEMO Secretariat, NAC is planning to have its members undergo training in the areas of Triage, First Aid/CPR, Systems Command and Control, Mass Casualty Management / Mass Crowd Events, Capacity Building, Training for Instructors and EOC Management training.
- 4. NAC has adopted a preschool in the town of Gros-Islet, efforts will be made towards assisting the preschool in areas such as:
 - a. Painting of the school
 - b. Cleaning of the school grounds
 - c. Engaging the children to educate them on safety and the environment
 - d. Any other area that the school administrator can utilize NAC.

CADM II National Team

Name of Reporting Officer: CADM II National Team

CADM is the Caribbean Disaster Management Project (CADM), supported by the Government of Japan. Saint Lucia is taking part in Phase Two of the project.

The project has distinct objectives:

- 1. Strengthen and establish a system for flood hazard mapping
- 2. Enhance the capability for community Disaster Management (DM)
- 3. Enhance recognition of the importance and usefulness of hazard maps and Disaster Management plans among the member states.

ACHIEVEMENTS

- 1. Meetings were held with the community of Corinth.
- 2. The community of Corinth formed Community Flood Preparedness Team. The members of the team accepted the duty and responsibility to receive the flood alert and to warn the community of the possibility of a flash flood.
- 3. Meetings were held with Technical Advisors from JICA and IDEA
- 4. A Standard Operating Procedure for the Corinth Early Warning System was developed and endorsed by the Community and the National Team.
- 5. A Terms of Reference aimed at transitioning the National Team into a Flood Mitigation Committee was developed and endorsed by the National Team.
- 6. Two members of the National Team represented Saint Lucia at the Annual CDM Conference held in Trinidad in December.
- 7. Two members of the National Team represented Saint Lucia at the 5th Joint Coordination Committee Meeting held in Barbados on Wednesday December 14, 2011
- 8. Water Level Sensor equipment was received.
- 9. Preliminary discussions were held with the management of LIME with regard to a partnership.

PREPAREDNESS

Training

• One member of the National Team participated in the workshop at CIMH from March 5th to 11th, 2011

CHALLENGES

- 1. The NEMO Secretariat does not have a GIS Specialist. This will impact the progress of the hazard mapping program.
- 2. The FEWS produced a number of false positives that drained the batteries.
- 3. The alert messages carried meta-data that affected the efficiency of the flood alert message.
- 4. Funding will be needed if the FEWS is to be replicated in other communities.

- 1. The CADM II National Team remains hopeful of the assignment to the NEMO Secretariat, of a full time GIS Specialist.
- 2. The National Team shall seek ways to replicate the FEWS in
 - a. Soufriere
 - **b.** Dennery
 - c. Cul de Sac
- **3.** Complete discussions with LIME with an aim of the adoption of the FEWS SOPs.
- **4.** Commence discussion with Digicel and LIME with the objective of a waiver on the telephone bills/system that the FEWS utilizes.

- **5.** Present the TORs for the Flood Mitigation Committee to the Prime Minister for endorsement.
- **6.** Prepare for the evacuation drill
- 7. Print and distribute the Evacuation Plan to the community of Corinth
- **8.** Print and distribute the FEWS SOPs to the relevant response partners.

Saint Lucia Cadet Corps

Name of Reporting Officer: Captain Sean Wells - Disaster Management Officer, SLCC

ACHIEVEMENT

The generous donation of Uniforms and Kit, from the Government and People of Slovenia was distributed to the Cadets. Many of the Cadets' Uniforms were worn out as a result of six weeks of responding to Hurricane Tomas in the previous year.

PREPAREDNESS

The organisation held its annual briefing session for all officers where the organisation role in disaster management and the annual review of the organisations plan were the main agenda items.

The DMO attended CEDEMA's workshop in Disaster Risk Reduction and Strategic Leadership, Tortola.

EMERGENCY RESPONSES

In April 2011 in keeping with SOP's the Corps was placed on standby due to rains.

CHALLENGES

There is need for:

- 1. Cadet Headquarters and designated administrative full time staff to ensure the expedited availability of trained officers
- 2. Establishment of Policy for the release of officers for National Service
- 3. Financial assistance to secure training for officers

- 1. The organisation will liaise with the NEMO Secretariat: Re. Policy for the release of officers for National Service.
- 2. The Executive of the Saint Lucia Cadet Corps will continue to engage the Government of Saint Lucia, Re. Cadet Headquarters and designated administrative full time staff; as the Director of NEMO has indicated her No Objection to the colocation of the organisation Headquarters to the NEMO Bisee Compound.

Search & Rescue

Group dynamics

Stress Management

♣ Damage Assessment

Continuity of Operations

Re-training in:

♣ ICS

EOC Management

Saint Lucia Fire Service

Name of Reporting Officer: Lambert Charles – Fire Chief (ag)

ACHIEVEMENTS

There was a significant increase in training programmers completed. Staff at all levels received training in various areas.

PREPAREDNESS

Fire Officers took part in:

- 1. Aerodrome firefighting
- 2. Written and oral communications skills
- 3. Pre-retirement workshop
- 4. EMT recertification
- 5. Emergency medical first responder
- 6. Critical incident debriefing

- 7. Effective customer relations
- 8. Refresher training
- 9. Fire prevention
- 10. Full scale airport exercise
- 11. Driver training
- 12. Airport Simulation

PUBLIC EDUCATION

80 Sessions Persons benefiting 2,468

Institutions where training was conducted

Schools Hotels Businesses

Government ministries

National council for persons with disabilities

Hospitals and health centers

SLASPA

	ports clubs Churches			Town halls
F R S S	Fire prevention inspections Fire and life safety Coutine inspections pecific inspections urvey and plans reviews FOTAL		692 292 285 115 1,384	
EMERG	ENCY RESPONSES			
FBCCCVBBBBCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	Service responded to: Fires Bush Commercial buildings Dwelling houses Electrical False alarm Dil spills Vehicle Bomb threat Boat Banana shed Coal pit Deep fryer Hotel Industrial L.P.G. on fire Bubbish Hed COTAL AMBULANCE RESPONSES Frauma Medical Jon-emergencies Not transported COTAL	263 31 155 39 46 2 30 1 1 4 7 1 6 1 5 186 4 642 1481 6353 2643 234		
Α	Ambulance standby at mass crowd eve	ents	111	

CHALLENGES

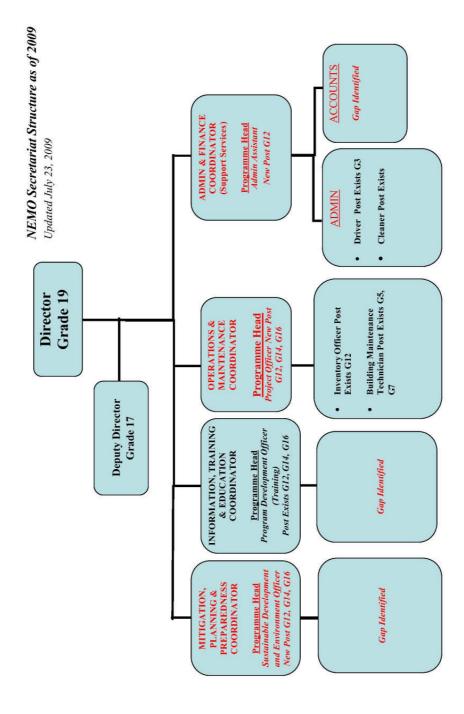
The challenges are numerous some are:

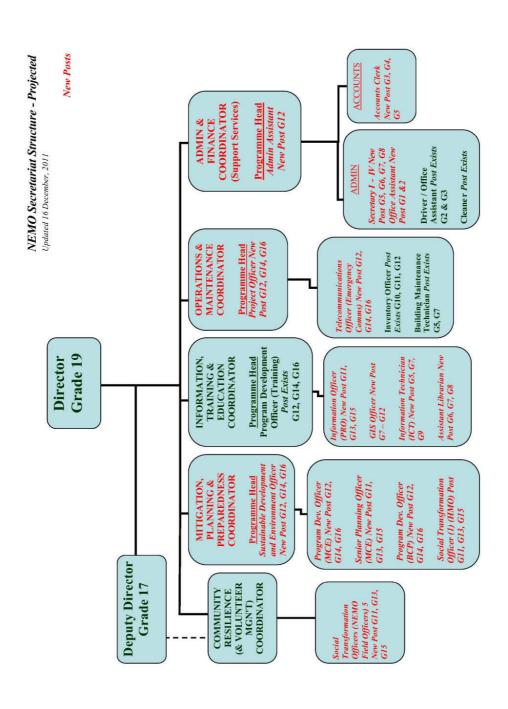
- 1. Low staffing levels
- 2. Inadequate equipment
- 3. Insufficient training opportunities
- 4. Uncoordinated EMS services at the national level

- 1. Pursue the systematic improvement in coordination between ambulance services and the Ministry of Health.
- 2. New ambulances will be sourced pending availability of financing
- 3. Two new fire appliances to be sourced pending financing
- 4. Improvement in driver training and certification.
- 5. SOPs for every area of operations to be completed
- 6. Complete Policy on Volunteer Firefighters.

Appendices

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Surface Trough: Roseau river near Morne d'Or Photo Credit: Veronica Simon



Emancipation Wave: Cul de Sac Photo Credit: Anonymous



Tyre Fire: Vieux Fort Landfill Photo Credit: Julian Dubois



Lionfish Photo Credit: Dept. Of Fisheries



Sargassum Seaweed: Micoud Coastline Photo Credit: Denise Collymore



Tropical Storm Emily: Slide at Vannah Photo Credit: Veronica Simon



Bus Accident: Morne Sion Photo Credit: Julian Dubois



Soufriere Flashflood Photo Credit: Soufriere Disaster Committee