



Government of Saint Lucia

Earthquake Contingency Plan

Online at <http://stlucia.gov.lc/nemp>

*Based on the CDEMA DRAFT MODEL Earthquake Contingency
Plan - 2010*

**Cabinet Conclusion 649/2007 (2 August, 2007)
Authorised the National Plan for Saint Lucia**

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Chapter 1: General

Purpose

General

- To protect Saint Lucia and her people, institutions, infrastructure, services, resources, environment and economy in the case of the impact of earthquakes.

Specific

- i. To describe the possible characteristics of earthquakes that could affect Saint Lucia
- ii. To describe the possible effects the impact of earthquakes could cause in Saint Lucia
- iii. To establish the need of an emergency response, an emergency plan and a permanent planning process against earthquakes in Saint Lucia.
- iv. To determine the activities that will be executed by the organisations in Saint Lucia to protect and rescue her people, institutions, infrastructure, services, resources, environment and economy in the case of the impact of an earthquake.
- v. To assign responsibilities to governmental, private and social organisations in Saint Lucia for the planning, testing, execution and evaluation of the emergency activities identified.
- vi. To determine the sequence of the emergency/ recovery activities that will be executed after the impact of earthquakes in order to optimise resources and increase the effectiveness of the response.
- vii. To establish a permanent planning process in Saint Lucia against earthquakes, at all levels, that involves all the stakeholders in the revision and updating of the plan, its emergency procedures and the resources needed for their implementation.
- viii. To have a planning tool that guides the training of personnel and testing of the Plan according to specific emergency/recovery activities considered.
- ix. To have the planning tool to keep records and the evaluations of real events caused by earthquakes in Saint Lucia and to include the results, recommendations and lessons learned in the Plan itself so they will not be repeated.

Authority

Disaster Management Act No 30 of 2006

Section 11(3) -- The National Disaster Response Plan shall include – (a) procedures for, mitigation of, response to and recovery from emergencies and disasters by public officers, Ministries and Departments of Government, statutory bodies, local government units, and persons or organization volunteer or are required by law to perform functions related to the mitigation of, preparedness

for response to and recovery and recovery from emergencies and disaster in Saint Lucia.

Education Act No. 41 of 1999

S139 -- Every Teacher in a public school and an assisted school shall – perform assigned duties as outlined in the school emergency plan developed by the school administration and the teachers to protect the health and safety of students.”

Employees [Occupational Health and Safety] Act No. 10 of 1985

Part II Section 3 (d) -- Every employer shall – provide information, training and supervision necessary to ensure the protection of his employees against risk of accident and injury to health arising from their employment.

Employees [Occupational Health and Safety] Act No. 10 of 1985

Section 9 – Effective arrangements shall be made in every place of employment for the disposal of wastes and effluents due to manufacturing process or any other working methods carried on therein.

Police Ordinance No. 30 of 1965

Part IV Section 22 (1) -- It shall be the duty of the Force to take lawful measures for –

(m) Assisting in the protection of life and property in cases of fire, hurricane. Earthquake, flood and other disasters

Scope

This plan is limited to the coordination of all Agencies of NEMO as it pertains to earthquake risk management.

Rationale

As difficult as the promotion of hurricane and other hazard countermeasures has proven to be in the Caribbean and elsewhere in the world, the promotion of earthquake countermeasures has proven to be even more so. This is because, in the Caribbean, the occurrence of serious earthquakes (magnitude VI or greater) tends to be rare. It therefore appears to be unreasonable to expend scarce resources on countermeasures against such a rarely-occurring event. Thus, earthquake risk management activities tend to be low-priority items on governmental agendas.

Another reason for this difficulty is the fact that, unlike most other more commonly-occurring hazards, earthquakes tend to occur without warning. This not only makes it impossible to take preemptive action, it also tends to promote a feeling of powerlessness. Further, the potential consequences of an earthquake differ from those of other hazards because of its unique characteristics. These include:

Ground Shaking - The potential severity of ground shaking and its consequential impact on buildings and life-lines depend on several factors. The magnitude of an earthquake at its epicentre determines the amount of energy released. Both the distance and the type of materials through which an earthquake travels attenuate its seismic waves. Therefore, the intensity of the same earthquake could differ at two locations that are equidistant from the epicentre (point of origin). The nature of the ground on which affected structures are located as well as the duration of the shaking are other contributing factors to the destructiveness of an earthquake event.

Induced Ground Failures - Ground shaking could trigger landslides or rock falls, and could cause liquefaction, which in turn could result in casualties or damage to structures.

Secondary Hazards - Secondary hazards, such as dam failure or fires due to ruptured gas lines, may be caused by collapsed or damaged structures.

Chain Reaction Disasters – Serious earthquakes can trigger other hazard events with disastrous impacts; for example, tsunamis, social disorder, loss in food production, environmental degradation, and the like.

The intention of the Earthquake Plan is to have a permanent planning process against earthquakes in Saint Lucia. Without a planning process, every plan is useless. The planning process is what keeps plans in good shape and updated. This can only be attained by involving all the stakeholders (government [national and local], private and social organisations involved in the planning and execution of emergency activities during a earthquake) together to analyse and update the plans regularly.

The Earthquake Plan considers the fact that emergency and recovery (relief, rehabilitation and reconstruction) correspond directly to specific effects and consequences of the impact of a specific hazard; therefore, the emergency/recovery activities can (and must) be identified before the hazard strikes; so, within the planning process, the execution of emergency/recovery activities can (and must) be planned, personnel can (and must) be trained and resources can (and must) be tested before the specific hazard strikes.

Policies

The following policy statements govern the operation of this plan:-

a. Management of Emergencies

Regardless of their particular level, all emergencies occurring within Saint Lucia, and requiring a multi—agency response, will be managed using the Incident Command System (ICS).

b. Activation of the NEOC

When a serious earthquake occurs the NEOC will be activated as soon as possible to coordinate the activities of all emergency response agencies. The NEOC will indicate the strategies to be adopted to respond to the emergency, establish the priority of activities to be undertaken and coordinate the various actions being undertaken by emergency response organizations. The merits of this approach are that:

- (i) It facilitates efficient coordination through the collection of all information on emergency related activities
- (ii) It enables the taking of effective action by providing direction and advice to emergency response organizations in a consistent and coordinated manner.
- (iii) It clarifies responsibilities for the various countermeasures.

c. Suspension of Routine Activities:

Day-to-day functions of state agencies that do not contribute directly to disaster relief operations may be suspended for the duration of any emergency. Similarly, state resources normally required for routine activities may be redirected to accomplish emergency-related tasks.

d. Households of Emergency Response Personnel:

State employees required to perform emergency response functions may not be at peak efficiency or effectiveness during a disaster if the status of their households is unknown or in doubt. Therefore, in the event of a serious earthquake, employees who are assigned disaster response duties are encouraged to make arrangements with their neighbors, relatives, friends or co-workers to check on their immediate families and to provide feedback on their status through the EOC.

e. Non-Discrimination:

No aspect of emergency relief will be denied to anyone on the basis of political affiliation, race, physical or other disability, religion, sex, marital status, age, sexual orientation or nationality.

f. **Individual Preparedness:**

The existence of this Plan does not absolve citizens of their individual responsibility to be aware of, and prepare for, hazards to which (name of country) is subject. All citizens are expected to be aware of developing events and take appropriate steps to ensure personal safety and protect property. The NEMO Secretariat will make every reasonable effort to provide information, via various media, to assist citizens in dealing with an earthquake emergency.

Review and Update

This Plan will be reviewed annually by agencies in the National Disaster Management System, under the leadership of the NEMO Secretariat. Additional revisions or enhancements deemed necessary, either following an actual earthquake event or as a result of findings of an exercise, may also be made.

Assumptions

This plan has been prepared with the following assumptions:

- That a large scale emergency such as an earthquake will result in increased demands on personnel of NEMO
- That the Government of Saint Lucia shall respond to a National Disaster.

Chapter 2: Environmental and Social Conditional

2.0 General

Each year the Eastern Caribbean experiences about 1200 earthquakes greater than magnitude 2.0. It is also estimated that the region will experience at least one magnitude 6 earthquake every 3 – 5 years. Although there is considerable variation in their respective threat level and vulnerability, no island in the region is completely free from the threat posed by this hazard. Increases in population density, poor land use practices and the absence of effective building codes for dwelling houses and other small buildings have exponentially increased the potential this rapid-onset hazard has to impart destruction. These characteristics underscore the need to prioritise the enhancement of earthquake preparedness and response.

2.1 Saint Lucia Earthquake Experience

The following sections are taken from Volcanic Hazard Assessment for Saint Lucia, Lesser Antilles by the Seismic Research Centre.

Shallow earthquake swarms in Saint Lucia

There have been at least five swarms of shallow earthquakes in Saint Lucia in the last 100 years. These occurred in 1906, 1986, 1990, 1999 and 2000, and at least three of these seem to have been triggered by a larger tectonic earthquake (1906, 1990 and 2000). A fifth burst may have occurred in early 1998 when a number of earthquakes were reported felt. Unfortunately the equipment and personnel of the Seismic Research Unit were heavily committed in Montserrat at the time and there were no seismograph recordings

Interpretation of recent earthquake swarms

As the volcanic earthquakes of the 1999 swarm were only recorded on one station, they could not be reliably located although we can say that they definitely occurred in southern Saint Lucia. Neither of the recent shallow earthquake swarms in Saint Lucia for which we have good seismograph data (1990 and 2000) were directly related to the area of most recent volcanic activity, the Soufrière Volcanic Centre. In fact, some of the earthquakes of these swarms are located beneath older basaltic centres that have previously been considered 'dead' (e.g. Mt. Gomier and Morne Caillandre/ Victorin).

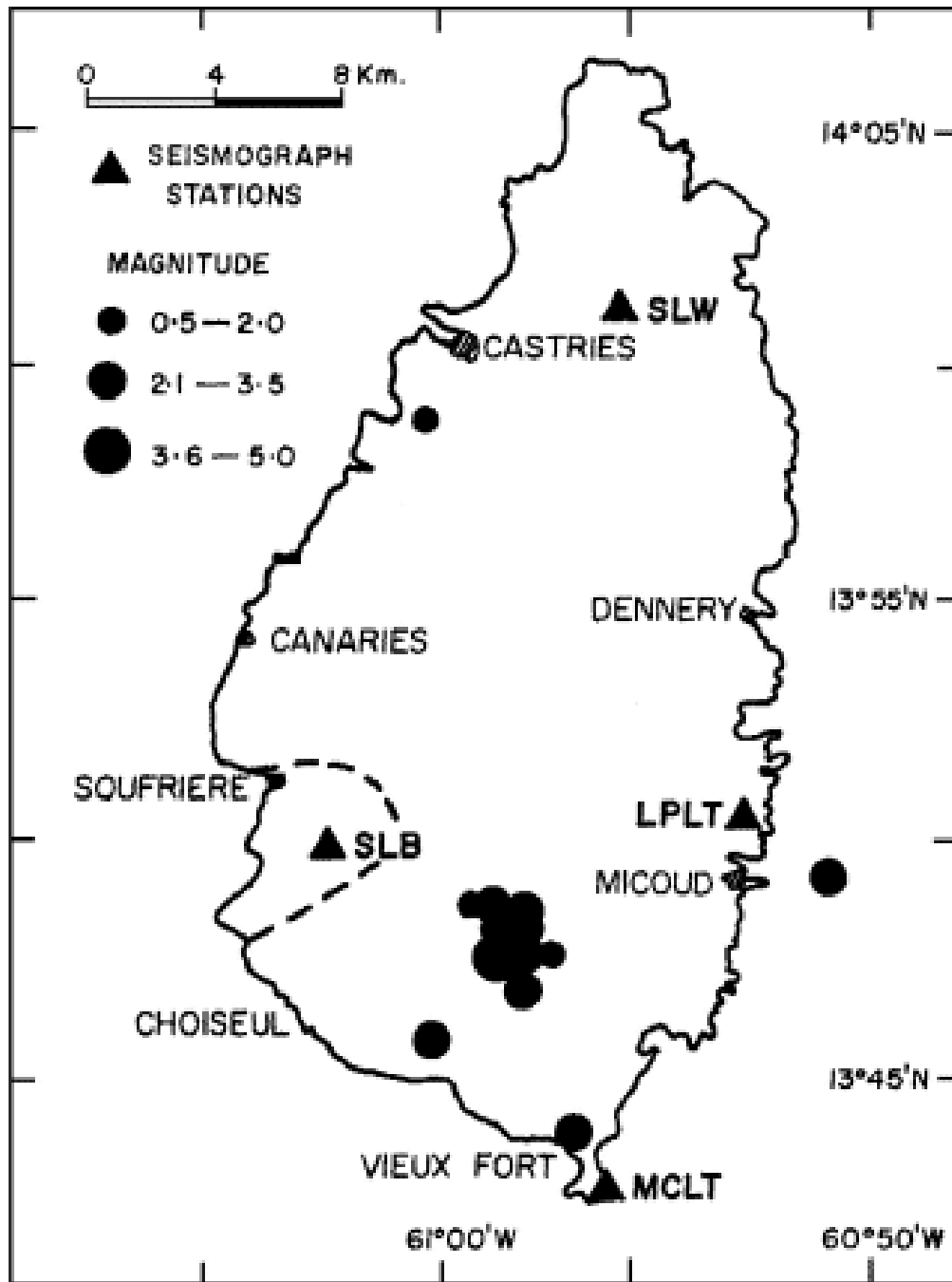


Figure 1: Earthquake Map – 17 May to 10 June, 1990

Map of St. Lucia, showing earthquake epicenters 17 May-10 June 1990 and locations of seismograph stations.

The broken line represents the limits of Qualibou caldera. Courtesy of the Seismic Research Unit, UWI

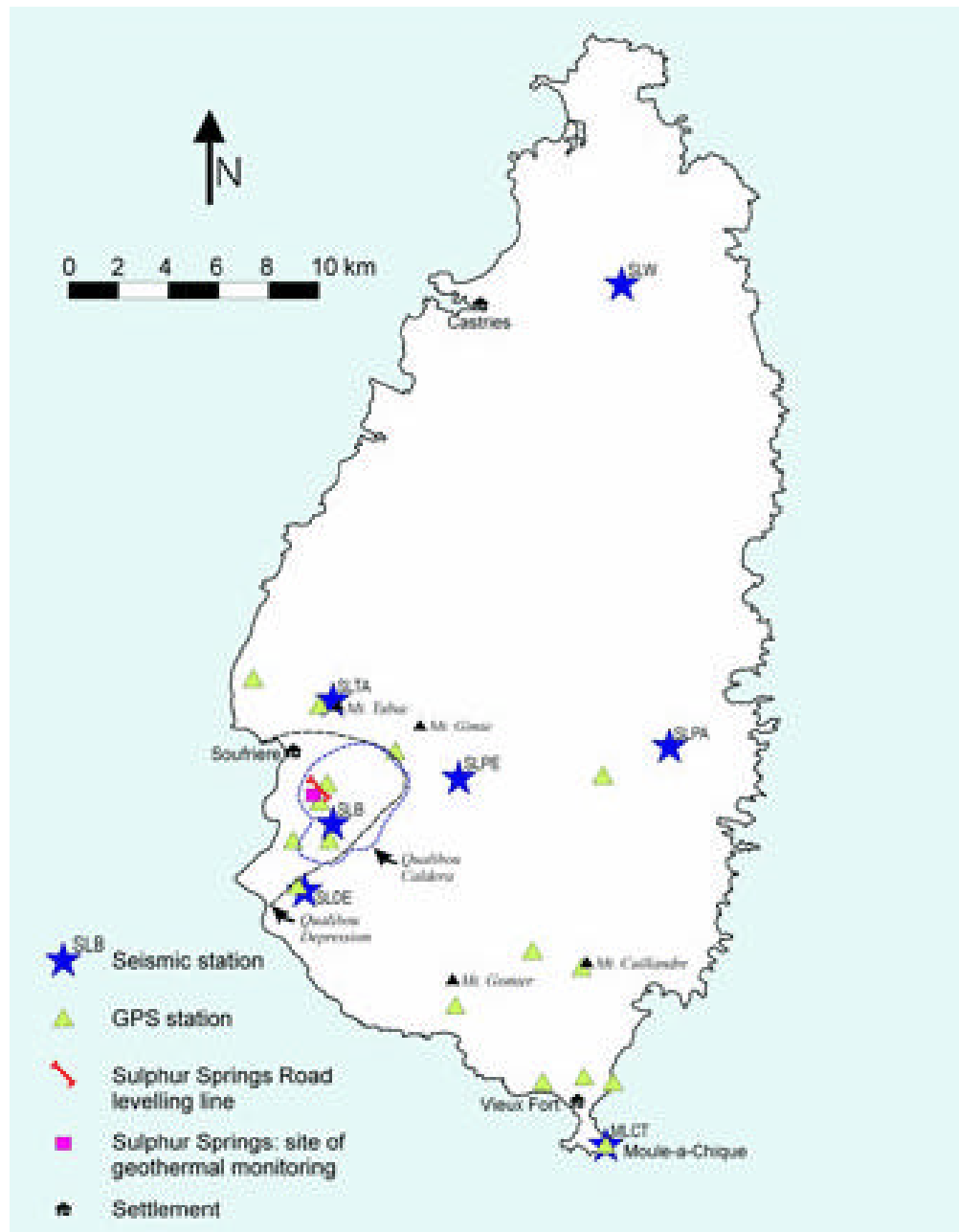


Figure 2: Monitoring Network
Courtesy of the Seismic Research Unit, UWI

2.2 Social Conditions

The population of Saint Lucia is about 162,000 (2003), with 31% of its people under 15 years old and 64% being the economically active population. The country is actively diversifying its economy from bananas to tourism and offshore banking. Its per capita GDP is an estimated US \$5,400, with the sectors of agriculture, industry and services contributing 7%, 20% and 73% respectively to the GDP (2002) (CIA Fact Book 2003).

Chapter 3: Concept of Operations

3.0 General

It is recognized that the occurrence of certain hazards often takes place with little or no warning. In such circumstances, or when the duration of the emergency is estimated to be relatively short, initial management of the emergency will be undertaken by First Responder Agencies on site or as close to the site as possible.

For Level II and Level III earthquake emergencies, the management of response operations will take place at the NEOC, located at Bisee.

3.1 Phases of Response

In the immediate aftermath of a serious earthquake event there are often many activities that need to be undertaken in a relatively short space of time. To ensure scarce resources are used in the most effective and efficient manner the Government must place importance on, and the priority level of, each of these activities. To ensure that a management structure is put in place to determine the priority and importance of these necessary activities, the following phases are recommended.

Phase 1 – Initial Stage: Activities in this phase should concentrate on establishing an organized response. This phase begins immediately following the occurrence of the earthquake and continues until the EOC is fully activated and is capable of controlling all emergency response activities. The duration of this period should be as short as possible. The main activities of this period include:

- Mobilising personnel and resources to fully establish the EOC.
- Response agencies instituting systems to carry out response activities in a comprehensive and efficient manner.
- Establishing channels of support through collaboration with other organizations within and outside of the country.

Phase 2 – Response Stage: Activities in this phase should focus on the saving of lives and the protection of property and the environment against secondary hazards. The length of this period typically extends from 24 hours to about seven days maximum (depending on the scale of the earthquake event).

Phase 3 - Return to Normalcy Stage: Activities in this phase should focus on stabilising peoples' daily lives and economic activities. This phase typically start approximately three days after the earthquake event and can last from a few weeks to a few months (depending on the scale of the earthquake event).

Chapter 4: Mitigation

4.0 Introduction

As with any other hazard, comprehensive earthquake management begins with those actions necessary to **avoid the hazard** (i.e. removing oneself away from the vulnerable environment), or to **reduce its impact** (by either mitigating the hazard or reducing vulnerability to it).

Typically, such mitigation actions fall into two categories: structural and non-structural. Structural measures include the application of building codes and the retrofitting of buildings. Non-structural measures include hazard mapping, land-use planning, zoning of development activities, effective early-warning, public awareness and education, and disaster management planning. *See Appendix 3 for a Checklist of non structural actions that one can follow.*

4.1 State Actions

Structural measures that Saint Lucia can take to counter the earthquake threat include:

1. Institute and enforce building codes for all structures,
2. Retrofit critical structures, if necessary.

Non-structural measures the State can take to counter the earthquake threat include:

1. Map the earthquake hazard.
2. Adopt and execute appropriate land use plans.
3. Zone development activities.
4. Set up and operate an effective Early Warning system.
5. Institute tax regimes to discourage development in certain hazard-prone areas,
6. Ensure that all agencies of the national emergency management system are adequately resourced and well-practiced.
7. Educate the public about the earthquake hazard.

4.2 Earthquake Mapping

It is essential to know the likely extent of earthquake areas so that the area under management can be decided. Earthquake maps are needed for this purpose. These can be prepared at different levels of sophistication from simple maps of past quakes to comprehensive maps showing areas of fault lines.

4.3 Land use Plans and Building Codes

The Government entities with responsibilities for land management are:

- The Ministry of Physical Development, which is the responsible for land development
- Office of Crown Lands for public land

The availability of appropriate land for relocation as a mitigation measure or in the aftermath of a disaster should be considered. This will necessitate consultation with land use planning ministries, housing and related entities.

At present the *Land Use Policy of Saint Lucia* shall act as a guide

4.4 Mitigation Efforts for Critical Infrastructure/Key Resources

Government can encourage businesses to go beyond efforts already justified by their corporate business needs to assist in broad-scale Critical Infrastructure/Key Resources (CIKR) protection through activities such as:

1. Providing owners and operators with timely, accurate, and useful analysis and information on threats to CIKR;
2. Ensuring that industry is engaged as early as possible in the development of policies and initiatives related to CIP implementation;
3. Articulating to corporate leaders, through the use of public platforms and private communications, both the business and national security benefits of investing in security measures that exceed their business case;
4. Creating an environment that encourages and supports incentives and recognition for companies to voluntarily adopt widely accepted security practices;
5. Working with industry to develop and clearly prioritize key missions and enable the protection and/or restoration of related CIKR;
6. Providing support for R&D initiatives that is needed to enhance future CIKR protection efforts;
7. Providing the resources to enable cross-sector interdependency studies; exercises, symposiums, training sessions, and computer modeling; and otherwise support business continuity planning; and

8. Enabling time-sensitive information sharing and restoration and recovery support to priority CIKR facilities and services during emerging threat and incident management situations.

These examples illustrate some of the ways in which the government can partner with the private sector to add value to industry's ability to assess risk and refine its own business continuity and security plans, as well as to contribute to the security and sustained economic vitality of the Country.

4.5 Mitigation Efforts in the Handling of Hazardous Materials

Countries in the Wider Caribbean Region need, before being part of the Regional OPRC Plan, to have their own national contingency plan developed. The latest information of the status of the NCP available at the Center is given under the following country profile:

Table 1: Oil Spill Status Report¹

| Country Name | Latest country profile update | NCP status (date of latest update) | Lead agency |
|--------------|-------------------------------|------------------------------------|---|
| Saint Lucia | March 2009 | August 2007 | Saint Lucia Air and Sea Ports Authority |

4.6 Mitigation Efforts against liquefaction and Landslides

Preparedness Measures

Community Education after identification of areas most at risk from landslides is critical. The basic information required:

- Knowledge of where past Landslides have occurred derived from local records and knowledge of certain types of rocks prone to landslides.
- Monitoring, warning and evacuation systems

Mitigation Measures

- Capture and drainage of water before it reaches potential slope area
- Underground drainage by using sub-surface pipes
- Land Reform by terracing/re-shaping

¹ <http://cep.unep.org/racrempeitc/National%20OPRC%20Plans>

Chapter 5: Preparedness

5.0 Introduction

To ensure the implementation of a prompt and smooth response to an earthquake emergency, the following preparedness actions shall be taken:

1. Establishing emergency response and management information systems in advance so that response and recovery activities can be carried out quickly and smoothly.
2. Preparing a manual that provides details of the evacuation plan of the major municipal jurisdictions
3. Stockpiling food, water, medical supplies, tents, body bags, etc
4. Educating both emergency response staff and the general public about the earthquake hazard
5. Hardening earthquake monitoring systems and promoting research on these systems

5.1 Emergency Response Systems

Evacuation

The emergency response activity by which emergency response organisations remove vulnerable persons from the scope of impact of a specific hazard, until the duration of the impact finishes and there is no longer any danger to return to the area where the vulnerable elements originally existed.

This function is guided by:

- *National Evacuation Plan* Section E/6 at <http://stlucia.gov.lc/nemp/>

Transportation

Responsible for coordinating transportation support to governments and voluntary organizations. Transportation support includes the following: performance of and assisting with evacuation and re-entry, processing of all transportation assistance requests and tasks received in the EOC, prioritizing transportation resources for the transportation of people, materials, and services, and performing all necessary actions to assist with recovery operations.

This function is guided by:

- *National Plan for Transportation in Disasters* Section E/15 at <http://stlucia.gov.lc/nemp/>

Communications

Responsible for coordinating actions to be taken to assure the provision of required communications (2-way radios) and telecommunications (computer and telephone systems) support to disaster personnel.

This function is guided by:

- *National Telecommunications Plan* Section E/21 at <http://stlucia.gov.lc/nemp/>

Mass Care

Responsible for coordinating efforts to provide shelter, food, and emergency first aid and for coordinating bulk distribution of emergency relief supplies to disaster victims.

This function is guided by:

- *National Relief Distribution Plan* Section E/16 at <http://stlucia.gov.lc/nemp/>
- *Emergency Shelters Plan* Section E/5 at <http://stlucia.gov.lc/nemp/>

Search and Rescue

Responsibilities include searching for and locating disaster victims in urban, suburban, and rural environments.

This function is guided by:

- *National Search and Rescue Plans* Section E/19 at <http://stlucia.gov.lc/nemp/>

External Affairs

Responsibilities of the Ministry and its overseas missions in the aftermath of a disaster. The relationship between the Ministry, the Diplomatic Corps and the National Response Mechanism is detailed, as is the relationship between the Ministry and the numerous International Agency Teams expected during a response.

This function is guided by:

- *Ministry of External Affairs – Disaster Guidelines* Section F/4 at <http://stlucia.gov.lc/nemp/>

Oil Spill/Hazardous Materials

Responsibilities include coordination in response to an actual or potential discharge and/or release of hazardous materials resulting from a natural or technological disaster.

This function is guided by:

- *Hazardous Materials Response Plan* Section E/9 at <http://stlucia.gov.lc/nemp/>
- *Oil Spill Response Plan* Section E/18 at <http://stlucia.gov.lc/nemp/>

Public Information

The National Media Centre, (GIS/NTN) is responsible for establishing, managing and disseminating public information.

This function is guided by:

- *Information Management in Disasters* Section F/1 at <http://stlucia.gov.lc/nemp/>

Donations

Responsibilities include expediting and managing the delivery of donated goods and voluntary services supporting relief efforts before and after a disaster impact.

This function is guided by:

- *Donations Management Policy* Section B/3 at <http://stlucia.gov.lc/nemp/>
- *Ministry of External Affairs – Disaster Guidelines* Section F/4 at <http://stlucia.gov.lc/nemp/>

Business and Industry

Responsibilities include efforts to get businesses operational again.

This function is guided by:

- *Business Continuity Plans of Private Sector Models* are available at <http://stlucia.gov.lc/coop/>
- *Business Continuity Plans of Public Sector Models are available*

Damage Assessment

Inspection/investigation into the damage of either a specific facility and/or a particular area, to aid disaster managers in deciding on the type and amount of assistance required to restore a sense of normalcy to the affected area. The result of this inspection is to be recorded and assessed at the National and/or District levels by the appropriate agencies.

This function is guided by:

- *Damage Assessment and Needs Analysis Plan* Section E/2 at <http://stlucia.gov.lc/nemp/>

Law Enforcement

Responsibilities include establishing procedures for the command, control, and coordination of law enforcement agencies to support disaster response operations.

This function is guided by:

- *Police Operations Orders and*
- *National Contingency Plan for Civil Unrest* Section E/1 at <http://stlucia.gov.lc/nemp/>

Law Enforcement Support

Responsibilities include the deployment of the Regional Security System [RSS] and the CARICOM Disaster Response Unit [CDRU]

This function is guided by:

- *The Operation Orders of the respective groups.*

Public Works

Responsible for providing technical advice and evaluations, engineering systems, construction management and inspection, emergency contacting, emergency repair of wastewater and solid waste facilities, removal and handling of debris, and the opening and maintaining of roadways.

This function is guided by:

- *DRAFT Ministry of Works Plan*

Health and Medical

Responsible for coordinating health and medical resources needed to respond to public health and medical care needs prior to, during and following a disaster.

This function is guided by:

- *DRAFT Ministry of Health Plan*

Utility Companies

Responsible for coordinating the rehabilitation and provision of water, electricity and communication services to support emergency response and recovery efforts and normalized community functions.

This function is guided by:

- *Critical Infrastructure and Key Resources Profile Section A/8 at <http://stlucia.gov.lc/nemp/>*
- *DRAFT Critical Infrastructure and Key Resources Policy.*
- *DRAFT Plan for the Re-establishment of Emergency Divisions*

Recovery & Restoration

To restore the Nation's social and economic activity as quickly as possible, and at the same time taking additional action which may mitigate against future occurrences, while noting opportunities that may arise to make both qualitative and quantitative improvements within the community.

This function is guided by:

- *DRAFT Recovery Plan*

Management of Dead in Disasters

Facilitate the recovery, identification, notification, filing death certificates, and facilitating means for processing and the release of dead human bodies to the next of kin under emergency conditions. (what of State burials)

This function is guided by:

- *DRAFT Plan for the Management of the Dead in Disasters*
- *DRAFT Disaster Victim Identification Plan*

Animal Protection

Responsibilities include addressing human health risks associated with animals, assisting in the capture/rescue of animals that have escaped confinement or been displaced from their natural habitat, providing emergency care to injured animals, providing humane care, handling, and sheltering to animals, issuing and enforcing animal disease quarantines, removing and disposing of animal carcasses, and releasing information to the public about quarantine areas, rabies alerts, and other animal related issues.

This function is guided by:

- *DRAFT Animal Evacuation Plan*
- *DRAFT Pests and Disease Plan*
- *DRAFT Plan for the Management of the Dead in Disasters*

Chapter 6: Response

Introduction

The earthquake response phase commences immediately after the impact of an earthquake. The Seismic Research Center (SRC) of the University of the West Indies (UWI), located in St Augustine, Trinidad and Tobago, is responsible for the confirmation of earthquake occurrences. The SRC has a series of remote sensing stations throughout the eastern Caribbean that enables them to advise on the severity and epicentre of an earthquake. Reports of all earth tremors are routinely forwarded from the SRC to all client states on a regular basis.

Activating the National Response Mechanism

In the event of an earthquake that results in damage, First Response Agencies will be responsible for notifying the NEMO Secretariat of their activation. Once it has been determined that a Level II emergency exists, the NEMO Secretariat shall initiate the National Emergency Management Plan. Factors which will influence initiation are:

- an earthquake has seriously impacted a community;
- a severe earthquake affects more than one municipality and
- requires a multi-agency response; or

- as determined by the Director NEMO.

The response will be coordinated by the National Emergency Operations Centre (NEOC). The decision to advise the NEMO Secretariat of the need for additional support will be made by the Incident Commander [IC].

The IC will complete a Situation Report Form for the Director NEMO. (See Appendix 2)

The Director NEMO in consultation with the IC and the Cabinet Secretary, will decide on activation of the Plan and if necessary, the NEOC.

The NEOC, once activated, will coordinate response, request additional resources and ensure adequate support to all relevant functions. Once the NEOC is activated all Standard Operating Procedures shall come into effect.

The IC will retain operational control of all operations.

Activating the Regional Response Mechanism

A major situation, which threatens population centres in Saint Lucia, may require that the Government of Saint Lucia receives support for its control and management. This will be coordinated by the Caribbean Disaster Emergency Management Agency [CDEMA].

The decision to advise the CDEMA Coordination Unit of the need for additional support will be made by the Prime Minister, the Cabinet Secretary or the Director NEMO, based upon established response levels. (See Appendix 1)

The Director NEMO will complete a Situation Report Form for the Coordinator of CDERA.

The Executive Director of CDEMA in consultation with the Government of Saint Lucia will decide on activation of the Regional Response Plan.

Once activated, CDEMA Coordinating Unit will coordinate regional response, request additional resources and ensure adequate support to all relevant National functions. Once activated all Standard Operating Procedures shall come into effect.

The National Emergency Operations Centre [NEOC] shall retain operational control of all operations in Country.

OF SPECIAL NOTE: Should the CDEMA/CU receive a request for activation from an alternate source regardless of its apparent credibility, the CU is to confirm the request with the Prime Minister, the Cabinet Secretary or the Director NEMO.

Declaration of a Disaster / State Of Emergency

Such decelerations shall be made in accordance with the Disaster Management Act No. 30 of 2006 and the Constitution of Saint Lucia.

Response Scenarios and Order of Precedence

The following are situations that may arise during a coordinated response;

A National Security Incident with no Humanitarian Response

Law and Order type incidents, terrorism and other incidents which do not impact on civilians, and which do not require a response by Civilian Authorities will be controlled and responded to by the Joint Operations Command Centre [JOCC] this entity in accordance with the National Security Plan which will coordinate all efforts through utilization of designated agency heads from all involved entities through utilization of Joint Incident Command (JIC) procedures.

A National Security Incident which requires a Humanitarian Response

This type of incident will be controlled by the JOCC with the NEOC in support of the humanitarian operations. The NEOC will be required to maintain a Liaison Officer within the JOCC for coordination purposes. The National Disaster Management Plan will be activated in support of the National/Regional Security Plan. All involved agencies must also maintain a Liaison Officer at the JOCC; this is not the time to “go it alone” but to coordinate all efforts to support the overall mission.

A Natural or Technological Disaster (Earthquake, Flood, Major Fire)

The impact of a hazard which results in a national disaster will be controlled by and responded to by the NEOC in accordance with the National Disaster Management Plan, which will take precedence. All response efforts MUST be undertaken in a coordinated manner to avoid injury to responders and provide assistance in the most timely and efficient manner.

A Natural or Technological Disaster that compromises National Security

In this type of scenario, the JOCC will control the situation, whilst allowing the Director NEMO to deal with the humanitarian matters. The primary purpose of this posture is to assure mutual support between both agencies in providing their diverse but complementary missions.

Phases of Response

Phase 1 – Initial Stage : Activation of NEOC

- i. The members of NEMO and all other public agencies having emergency response-related responsibilities shall nominate personnel responsible for emergency response in advance.
- ii. Such nominated persons shall immediately answer the call to mobilize whenever such a call is issued.
- iii. Once activated, the NEOC and other EOCs shall operate in accordance with established SOPs.

Phase 2 – Response Stage

The main activities in this stage are geared towards the saving of lives and the prevention of damage to property and the environment. Consequently, key actions include:

- i. Prompt gathering and transmission of information on the details of the earthquake, the securing of a reliable means of communication and the initial assessment of the damage caused,
- ii. Determining the need to declare a State of Emergency or a “Disaster Area”, as appropriate.
- iii. Preventing confusion resulting from rumours or false reports, encouraging appropriate decision-making and action-taking by transmitting correct information to both victims and the rest of the population,
- iv. Searching for and rescuing disaster victims and providing prompt medical attention to casualties,
- v. Disaster prevention activities such as fire-fighting and tsunami countermeasures in order to prevent secondary or chain reaction emergencies,
- vi. Guiding victims to safe shelters,
- vii. Securing means of emergency transportation by controlling vehicular and pedestrian traffic to support smooth rescue, medical assistance and fire-fighting activities and to issue emergency supplies to victims, and
- viii. Ascertaining the risk of secondary disasters hazards such as flooding, landslides etc., and, where necessary, evacuating residents and implementing countermeasures against these potential hazards.

Phase 3 – Recovery

Activities in this phase are aimed at stabilising peoples’ daily lives and economic activities. Key activities undertaken during this stage include:

- i. procuring and distributing food, water, medicines and other daily supplies necessary for maintaining an acceptable level of comfort for disaster victims,
- ii. establishing law and order through crime prevention and suppression activities, and implementing measures for the reliability of supply and the stability of commodity prices,
- iii. acceptance of material and monetary donations from abroad,
- iv. preventing confusion caused by rumours and false reports,
- v. transmitting correct information to disaster victims and other members of the public; thereby encouraging appropriate judgment and decision-making based on accurate information, and
- vi. assessing the state of health of disaster victims, health and hygiene activities such as waste disposal, quarantine activities, and the recovery and handling of dead bodies.
- vii. Clearance of debris from roads, airports and ports. These activities should include debris management considerations.
- viii. Reopening of roads, ports and airports.
- ix. Temporary repair of damaged buildings.
- x. Consider possible isolation of some areas, and the resupply options available to assist them.
- xi. Re-establishment of communications systems.
- xii. Establishment of procedures to deal with media enquires.
- xiii. Restoration of Lifelines and utilities.

Phase 4 - Return to Normalcy Stage

Dependant upon the severity of the Earthquake this may decades.

After shocks may continue to affect the community; National and local plans should take into account the effects these might have on response operations.

Chapter 7: Recovery

Details for this chapter are laid out in the Government's National Re-Construction Plan for Saint Lucia.

Relation between Hazard's Effects and Response/Recovery Activities

Emergency/Response and relief activities are not the product of coincidence; they respond directly to the specific damage that can be caused by a specific phenomenon of specific characteristics: if a hazard is predictable, then we have warning, notification and evacuation; if we have to evacuate, we need shelters and shelter management; if the hazard is likely to produce deaths and injured people, then we to have and plan for medical attention and disposal of the dead, etc.

Emergency response and relief activities are known before the impact of a hazard. This is what gives emergency planning an opportunity to be accurate in terms of what defining the activities that have to be executed before, during and after a specific hazard's impact. We have, also, the opportunity to assign responsibilities, to train personnel and to test our resources.

Response/Recovery Activities.

Recovery

After a month or so, the emergency phase will give way to a decades-long struggle for recovery and long-term development. Saint Lucia must avoid a prolonged period of victims in shelters, living with family and as refugees in their own country in tent cities.

But where should displaced people – numbering hundreds, and perhaps thousands – live? How should they be provided with food, water, health care and shelter? And how can they begin to contribute to the revival of basic economic life?

With such a catastrophe in Saint Lucia, the economy will of necessity have a simple structure in the coming years, with most economic activities focused in first, five sectors: smallholder, or peasant, agriculture; reconstruction; port services and light manufacturing; local small-scale trade; and public services, including health care and education. With the sixth sector that of tourism only being possible after the first five have taken hold.

The key challenge is to support these five sectors in order to combine short-term relief with long-term reconstruction and development.

Reconstruction

The economy will have a simple structure in the coming years, with most economic activities focused in six sectors:

1. smallholder, or peasant, agriculture;
2. reconstruction;
3. port services and light manufacturing;
4. local small-scale trade;
5. public services, including health care and education
6. tourism

Table 2: Recovery Matrix

| No. | Engine of Growth | Framework | Facilitating Ministries |
|------------|--------------------------------------|--|--|
| 1. | smallholder, or peasant, agriculture | Special efforts should be made to boost peasant agriculture and rural communities. This will enable displaced people to return to their village communities and live from farming. With fertilizer, improved | <ul style="list-style-type: none"> • Ministry of Agriculture, Lands, Fisheries and Forestry |

| | | | |
|----|--|--|--|
| | | seeds, small-scale irrigation, rapid training and extension services, and low-cost storage silos, Saint Lucia's food production could double or triple in the ensuing years, sustaining the country and building a new rural economy. | |
| 2. | reconstruction | <p>Reconstruction – of roads, buildings, and water and sanitation systems – will employ hundred perhaps thousands of construction workers, and boost the regeneration of towns and villages. Donor Agencies can help peasant farmers to produce more food in the countryside and then purchase the food to use in food-for-work programs oriented to construction projects.</p> <p>The infrastructure before the disaster was extensive with most of that devastated. Large-scale capital investment will also be needed to re-equip the ports and to re-establish a power grid, water supplies etc.</p> | <ul style="list-style-type: none"> • Ministry of Physical Development • Ministry of Works • Housing and Urban Development Corporation |
| 3. | port services and light manufacturing | Recovery will also require re-establishing of Saint Lucia's small manufacturing sector. Saint Lucia once created jobs in the production of clothing other light-manufacturing items. Those jobs must be secured and new ones created. | <ul style="list-style-type: none"> • Ministry of and Works • Ministry of Commerce |
| 4. | local small-scale trade | Special programs will be needed to boost the local small-scale trade. This will enable displaced people to resume their trade. Upon this foundation the economy can take its first steps to the facilitation of larger business restarting. | <ul style="list-style-type: none"> • Ministry of Commerce • National Development Corporation |
| 5. | public services, including health care and education | Government is the agency that will facilitate the country's return to the level of development that existed before the devastation. | <ul style="list-style-type: none"> • Ministry of Health • Ministry of Education • All Ministries |

| | | | |
|----|---|--|--|
| | | All Ministries of Government must realize that rebuilding Saint Lucia will cost perhaps millions if not billions, and will take five to ten years dependant on the level of devastation faced. | |
| 6. | tourism | <p>As the number one driver of Saint Lucia's economy any disaster will relegate that position as it will do to all sectors.</p> <p>The industry must be secured, but its regeneration will be dependant on the other partner sectors being functional.</p> | <ul style="list-style-type: none"> • Ministry of Tourism |
| 7. | coordination of donors/ international agencies | <p>Harmonize the international response. There are many official organizations from abroad, already based in Saint Lucia that will become engaged in the recovery effort. Then there will be the numerous ones that will appear for the first time because of the devastation.</p> <p>Each agency has its role, but they also tend to squabble over turf rather than cooperate. International financial promises are made for headlines and photo opportunities, but end up undelivered.²</p> | <ul style="list-style-type: none"> • Ministry of External Affairs • Office of the Prime Minister |

Monitoring and Evaluation

The reconstruction of a nation and its economy after it has been devastated will dedication and millions if not billions of dollars. Such a program will require as of necessity that it be monitored for transparency accountability and to address the temptation for corruption.

It is therefore proposed that the process will be monitored by a highly professional executive team that will coordinate the international support efforts. This team should be made up of native and diaspora Saint Lucian professionals with relevant expertise.

² *Rebuilding Haiti: The 10-Year Plan*, January 26, 2010 cited in <http://blogs.ei.columbia.edu/2010/01/26/rebuilding-haiti-the-10-year-plan/>

Chapter 8: Tsunami Countermeasures

Introduction

This chapter is laid out in further detail in the DRAFT National Tsunami Plan.

Such a planning process must be led by the following:

- Tsunami Focal Point – Saint Lucia Met Services
- Tsunami Contact Point – NEMO Secretariat

Messages for Felt Event

There are three key earthquake parameters that can be determined quickly from seismic waveform data for the evaluation of an earthquake's tsunamigenic potential. They are:

- 1) location - whether the earthquake is located under or very near the sea,
- 2) depth - whether the earthquake is located close enough to the earth's surface to have caused a significant deformation of that surface and consequently a movement of the sea, and
- 3) magnitude - the size of the earthquake.

The table below shows various combinations of these parameters and the types of products that will be issued for the Caribbean by PTWC for each case. These criteria are similar to what PTWC uses in the Pacific and Indian Oceans.

Table 3: Pacific Warning Centre Caribbean Bulletin Criteria

| Earthquake Depth | Earthquake Location | Earthquake Magnitude (Mw) | Description of Tsunami Potential | Product Type |
|------------------|----------------------------|---------------------------|--|--------------------------------|
| Less than 100km | Under or very near the sea | 6.0 to 7.0 Caribbean | Very small potential for a destructive local tsunami | Tsunami Information Statement |
| | | 6.5 to 7.8 Atlantic | Very small potential for a destructive local tsunami | Tsunami Information Statement |
| | | 7.1 to 7.5 Caribbean | Potential for a destructive ocean-wide tsunami | Local Tsunami Watch Message |
| | | 7.6 to 7.8 Caribbean | Potential for a destructive ocean-wide tsunami | Regional Tsunami Watch Message |

| | | | | |
|---|---------------|---|---|---|
| | | Equal or more than 7.9 Caribbean & Atlantic | Potential for a destructive ocean-wide tsunami | Ocean-wide Tsunami Watch Message |
| | Inland | Equal or more than 6.0 Caribbean Equal or more than 6.5 Atlantic | No tsunami potential | Tsunami Information Statement |
| Equal or more than 100km | All Locations | Equal or more than 6.0 Caribbean Equal or more than 6.5 Atlantic | No tsunami potential | Tsunami Information Statement |
| <i>SOURCE: Communication Plan for the Interim Tsunami Advisory Information Service to the Caribbean Sea and Adjacent Regions - 23 July 2006 Version</i> | | | | |

Table 4: Tsunami Decisions

| Scenario | Action | Agency Responsible |
|---|--|--|
| Local Tsunami – the wave is five to sixty minutes from the coast and with in 100km from the epicenter. | There will not be enough time for an official warning. Citizens must be educated to tsunami sign and what actions they must take. | Tsunami Focal Point – Saint Lucia Met Services |
| Regional Tsunami – the wave is one to three hours from the coast and with in 100km from the epicenter. | Inform the Emergency Services and NEMO Evacuation Orders are required. | Tsunami Contact Point – NEMO Secretariat |
| Distant [Tele] Tsunami – the wave is over three hours from the coast and over 1,000km from the epicenter. | Inform the Emergency Services and NEMO Evacuation Orders are required. | Tsunami Contact Point – NEMO Secretariat |

Tsunami Warning

A tsunami warning is a warning issued once a tsunami has been generated. The interim warning center in Hawai'i would recommend a tsunami warning if there was a possibility that a tsunami could affect Saint Lucia and neighbouring islands within 2 hours.

For this one of the following would have to be met:

1. An earthquake of the intensity 7.0 or greater is felt in Saint Lucia.
2. An earthquake of the magnitude 6.5 or greater and shallower than 100Km is detected by the Seismic Research Centre or the Pacific Tsunami Warning Centre [PTWC] offshore of Saint Lucia. A threshold of 6.5 is used because of the potential for seismically induced submarine landslides.
3. An earthquake of 7.5 or greater is detected by the PTWC or the Seismic Research Centre beyond the immediate region, but within a two hour travel time as calculated with the Tsunami Travel Time program of Guisakov (2000). In the Caribbean Sea, this corresponds to all regions roughly East of Longitude 80° W and the Atlantic Ocean between Longitude 35° and 75° W and Latitude 10° and 35° N. This area corresponds roughly to southern Cuba, Jamaica, Saint Lucia, Dominican Republic, the Lesser Antilles and Northern Venezuela.
4. Reliable reports were received that a tsunami has been observed locally, in the Eastern Caribbean or the Western Atlantic Ocean as defined in 3.

Tsunami Watch

A Tsunami Watch is given when earthquakes are at a certain level of strength to potentially cause a tsunami.

The PTWC or the Seismic Research Centre would recommend a Tsunami Watch under the following conditions:

1. An earthquake of a magnitude 8.0 or greater at a depth shallower than 100Km is generated by the Caribbean Sea roughly west of longitude 80W, in the Gulf of Mexico or in the Atlantic Ocean beyond the longitude 35° and 75° W and Latitude 10° and 35° N.
2. Reliable reports are received that a tsunami has been observed which has the potential of reaching the Caribbean.

Tsunami “All Clear”

A cancellation, “all clear” of a tsunami watch or warning would indicate that the region is no longer at imminent risk from a tsunami. The Saint Lucia Met Service will recommend a cancellation under the following conditions:

1. The TWC or the Seismic Research Centre has notified the Met Office that the warning or watch has discontinued.
2. The TWC or the Seismic Research Centre determines that the conditions to issue the warning or watch was not met.
3. The behavior of the sea has returned to normal levels according to reliable reports
4. Within an hour of the conditions being met no reports are received that a tsunami has been generated.

Table 5: Responsibilities Matrix for Emergency/Recovery Functions

| Hazard/Function | Main Responsible Organisation | Key Support Organisations (secondary) | Sectoral Plans |
|--|---|--|--|
| 1. Notification | NEMO | SRC, National Committees, District Committees. Government Ministries. | |
| 2. EOC | NEMO | Disaster Committees, District Committees, Ministries, Private Sector | Sectoral EOCs, MOW, Plan, MOH Plan, CMU Plan, Private sector plan. |
| 3. Communications | Telecommunications Committee | Private sector. Amateur radio operators. | MOW Plan. Private Sector Plan |
| 4. Transportation | Transportation Committee | MOW, volunteers. Private sector. | MOW plan. Crisis Management Plan |
| 5. Evacuation | Royal Saint Lucia Police Force | District Committees, Transportation Committee | Crisis Management Plan. |
| 6. Shelter management | Shelter Management Committee. | Welfare Committee, Red Cross, District Committees, Social Organisations. MOH. Supply management Committee. | |
| 7. Search and Rescue | Fire Service (land) Marine Police (marine) | Transportation Committee, MOW. | |
| 8. Security | Police Force | | |
| 9. 9. Medical attention | Ministry of Health | Private sector. Transportation committee. Fire service, police. Welfare Committee | MOH Plans |
| 10. Environmental Health | Ministry of Health | Shelter Management Committee. | MOH Plan. |
| 11. Damage Assessment & Needs Analysis | Damage Assessment Committee | Ministry of Works | MOH Plan, MOW Plan, Private Sector Plan. Crisis Management Plan. |
| 12. External Assistance | Ministry of External Affairs | NEMO or Office of the Prime Minister. | |
| 13. Supply Management. | Supply Management Committee | Governmental Ministries. Private sector. Transportation Committee | Private Sector Plan |

| | | | |
|---|--|--|--------------------------|
| 14. Public Information | Information Committee (GIS) | NEMO, The Media, All Committees. | Crisis Management Plan. |
| 15. Protection and Rehabilitation of Infrastructure | Works/Rehabilitation Committee | MOW, Private sector | MOW, Private Sector Plan |
| 16. Environmental Protection and Rehabilitation | Saint Lucia Solid Waste Management Authority | MOW. Transportation Committee. | |
| 17. Reconstruction | Ministry of Planning | NEMO, MOW. All Ministries, Private Sector. | |
| 18. District Disaster Committee Response | District Disaster Committee | Organisations in the District. NEMO. EOC. | District Disaster Plan. |

Initial Aerial Damage Assessment.

The magnitude of the response must be directly proportional to the damage and needs caused by the impact of any hazard; therefore, an initial assessment of the damage is needed. The emergency functions that have to be executed and the locations where they have to be implemented are also determined by the damage assessment.

In this plan, it is considered to have an initial aerial damage assessment as the first of the activities of the general Damage Assessment and Needs Analysis.

This initial assessment will give the EOC an idea of the magnitude of the damage and of the areas that have been affected and how. This will focus the subsequent damage assessment activities and the implementation of the relief and rehabilitation emergency functions.

The Transportation Committee can provide aerial transportation (helicopter) for this purpose. This initial aerial assessment would take place once NEMO Director has determined that it is necessary.

Two groups in two flights would participate in this initial aerial damage assessment. If it is determined by NEMO that only group 1 has to participate in the assessment, team 2 would not participate unless otherwise determined by NEMO.

Group 1:

1. Prime Minister
2. NEMO Director
3. Chair - Damage Assessment Committee
4. Chair - Works and Rehabilitation Committee Chairperson
5. Cameraman

Group 2:

1. Police Commissioner
2. Chief Medical Officer
3. Chair - Shelter Management Disaster Committee
4. Representative Ministry of Agriculture
5. Cameraman

The results of this initial aerial damage assessment will be shared and discussed with the rest of the EOC members to focus the initial response activities co-ordinated from there and to inform the public.

Chapter 9: Emergency Procedures

The Plan includes the following emergency procedures:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Notification 2. Emergency Operation Centre (National) 3. Communications 4. Transportation 5. Evacuation 6. Shelter Management 7. Urban Search and Rescue 8. Maritime Search and Rescue 9. Security 10. Medical Attention 11. Environmental Health | <ol style="list-style-type: none"> 12. Damage and Needs Assessment 13. External Assistance 14. Supply Management 15. Public Information 16. Protection and Rehabilitation of Infrastructure 17. Environmental Protection and Rehabilitation 18. Reconstruction 19. Local EM Corps General Procedure (Earthquake) |
|--|--|

National Earthquake Plan Emergency Procedure 1 - Notification

Objectives

To notify to all the members of the NEMO involved in the National Earthquake Contingency Plan about the impact and damage of an earthquake and about the response measures needed to be taken.

Responsible for the Procedure:

Main: Director NEMO.

Support:

- Seismic Research Unit
- Cabinet Secretary
- The Deputy Director, NEMO.
- NEMAC

Steps of the Procedure

The Director of NEMO shall:

Permanent:

1. Ensure that the directories of the persons involved in the plan and in this procedure who have to be notified are updated regularly and that a copy is kept at NEMO.
2. Ensure that the members of the EOC update the directories of the personnel and organisations they have to notify is updated at least once a year.
3. Keep one copy of this procedure and its directories at the office and one at home.
4. Maintain contact with the Seismic Research Unit regarding earthquakes, vulnerability and risks.
5. Coordinate with the Seismic Research Unit to establish mechanisms and means of communication of information immediately after the impact of an earthquake.

After the Impact:

1. Request information from the *Seismic Research Unit* about the earthquake:
Telephone: 868 662 4659; Fax: 868 663 9293; e-mail: uwiseismic@uwiseismic.com

2. Request and receive initial damage reports.
3. Notify to all persons/organizations as needed.
4. Call a meeting at NEMO Headquarters if necessary, to evaluate the need to activate the EOC and consult with the Cabinet Secretary.
5. Once the EOC is activated, the Director will notify Teams # 1 and # 2 (*See Appendix 4 for Members*) and request the attendance of the members of Team #1 to the EOC immediately.

END OF PROCEDURE FOR DIRECTOR NEMO

Seismic Research Unit

Permanent:

1. Monitor the seismic threats to Saint Lucia
2. Maintain contact with NEMO to provide information about earthquakes, vulnerability and risks.

After the Impact:

1. Provide information to the NEMO Secretariat when requested regarding an earthquake, its magnitude and possible aftershocks.
2. If the earthquake is of a magnitude 5 or greater, **DO NOT WAIT TO BE CONTACTED.** Contact the NEMO Secretariat and provide information about the earthquake as soon as possible, at least: magnitude, location and about the possibility of aftershocks.

END OF PROCEDURE FOR SEISMIC RESEARCH UNIT

The Cabinet Secretary shall:

Permanent:

1. Keep an updated directory of the Permanent Secretaries of the Government Ministries at the office and keep one copy at home.

After the Impact:

1. Notify the Prime Minister about the earthquake, damage and response measures needed.
2. Based on information received by the Director of NEMO about the situation, determine, along with the Director of NEMO, the need to activate the EOC.

END OF PROCEDURE FOR CABINET SECRETARY

NEMAC shall:

Permanent:

1. Keep an updated directory of fellow members at the office and one copy home.
2. Review roles and responsibilities for each of the Committee members

After the Impact:

1. Call NEMO Secretariat after every strong earthquake to find information about the earthquake and its effects and to request instructions.
2. After contacting NEMO Secretariat or if notified by the Secretariat, notify fellow members of the Committee about the situation.
3. After receiving NEMO's notification that the EOC has to be activated due to the earthquake consequences, report to the EOC.

END OF PROCEDURE FOR NEMAC

National Earthquake Plan
Emergency Procedure 2 - Emergency Operations Centre (National)

Objectives

To activate, operate and deactivate the National Emergency Operations Centre (EOC), located at Biseé, in the case of the impact of an earthquake in Saint Lucia.

Responsible for the Procedure:

Main: The Director of NEMO

Support:

- The Deputy Director of NEMO
- The Cabinet Secretary
- The Members of the EOC

Steps of the Procedure

The Director of NEMO shall
 Also Director the Deputy Director shall

Permanent:

1. Ensure the Emergency Operation Centre is in good shape and has all information needed at all times.
2. Organise, plan execute and evaluate simulation exercises for the activation and operation of the EOC.
3. Ensure that the EOC has all equipment, information and materials needed for its operation:

| | |
|------------------------|----------------------|
| Communications | Emergency procedures |
| Stationery | Flip chart |
| Maps | Computers |
| Situation report forms | Files |
| Message forms | Directories |
| Emergency plan | Food |

After the Impact:

1. Receive from the Seismic Research Unit information about the earthquake.
2. Request and receive initial reports of damage. If necessary call a 'Post Impact meeting' at the EOC Building at Biseé to analyse the situation and determine if the EOC is to be activated.
3. Consult with the Cabinet Secretary and other EOC members as necessary, about the activation of the EOC based on the reports about damage and response measures needed.
4. If the situation does not demand the activation of the EOC, co-ordinate the response from NEMO's office as needed.
5. If the situation demands the activation of the EOC, proceed with the notification to the EOC members Team # 1 *[See Appendix 4]*
6. Request from the Police Force, two [2] Policemen to be sent immediately to the EOC to provide security.
7. Request from the one Amateur Radio Operator to be sent immediately to the EOC.
8. Set up the EOC with the assistance of the NEMO Auxiliary Corp, Saint Lucia Cadet Corps, the Radio Operator and the EOC members as they arrive.
9. Receive and brief all EOC members at their arrival
10. Ensure that EOC members finally set up the EOC.
11. Co-ordinate all activities in the EOC. During his/her absence from the EOC, be substituted by the Deputy Director or by the Cabinet Secretary.
12. Ensure, immediately after the EOC is activated, that the National Transport Committee provides aerial transportation for the initial damage assessment flight.
13. Receive information from the Team Members after the initial damage assessment flight.
14. Start to receive incoming messages from the Local EM Corps.

15. Revise continuously the incoming messages to give an adequate follow up and updating of information about actions taken.
16. After 12 hours of EOC operation, with the assistance of all EOC members and NEMO personnel, ensure that Team 2 is notified and called to the EOC.
17. After 12 hours of operation request a report from all members of the EOC once both EOC teams are present.
18. After 12 hours of activation of the EOC hand responsibilities over the Deputy Director NEMO after briefing him.
19. After 24 hours of EOC activation return to the EOC and be briefed by the Deputy Director.
20. After 24 hours of EOC activation request a report from all members of the EOC once both EOC teams are present.
21. After 24 hours, request reports from all EOC members every 12 hours with the presence of both two teams.
22. After 24 hours of the impact, along with the rest of the EOC members, considering the disaster situation and after consulting with the Cabinet Secretary and/or the Prime Minister, take the decision to continue the operations or deactivating the EOC.
23. After the EOC deactivation, based on the disaster situation and after consulting with the rest of the EOC members, decide about the activation of a 'Agency for National Reconstruction' chaired by the Ministry of Physical Development, based in the Ministry, to conduct the rehabilitation and reconstruction issues that have to be conducted.
24. If there is the need, participate in the creation of a Reconstruction Committee.

END OF PROCEDURE FOR THE DIRECTOR OF NEMO

The Cabinet Secretary shall:

Permanent:

1. Know the Earthquake Contingency Plan and its Emergency Procedures.
2. Participate in simulation exercises that test the EOC and be informed of their evaluation.

After the Impact:

1. Receive information from NEMO's Director about the situation.
2. Be consulted by the Director of NEMO about the decision of activating the EOC.
3. After the decision of activating the EOC has been taken, Report to the EOC.
4. When arriving to the EOC, be briefed by the EOC Director.
5. Assist and advise the Director of Operations in the co-ordination of the EOC.
6. Act as EOC Director and co-ordinate all activities therein.
7. Remain in the EOC and advise the Director of NEMO in any situation that demands his/her opinion/decision or the Prime Minister's.
8. Contact and consult the Prime Minister as he/she thinks fit regarding any message and situation that demands the Prime Minister decision.
9. After 12 hours in the EOC be substituted by the PS of the Ministry of Physical Development.
10. After 24 hours of activation in the EOC return to the EOC and substitute the PS of the Ministry of Physical Development.

END OF PROCEDURE FOR THE CABINET SECRETARY

The Members of the EOC shall:Permanent:

1. Know the Saint Lucia Earthquake Contingency Plan and its procedures and participate in the planning process by revising and updating them regularly under NEMO Director's co-ordination.
2. Know their role in the EOC and determine their own needs regarding equipment, materials, stationary, information and others.
3. Meet regularly in order to improve the plan and its procedures, identify roles and assign to the Committee members responsibilities regarding preparedness and response.
4. Define mechanisms of co-ordination and communication in the case of an emergency or a disaster, particularly from the Chairperson in the EOC to all the members.
5. Ensure that everything they would need in the EOC is always ready in case of its activation.

Information

Plan and procedures

Formats

Forms

Maps

Stationery

Communications equipment

Directories

Inventories

After the Impact:

1. After the decision to activate the EOC has been taken, Report to the EOC.
2. Before going to the EOC notify the organisations/persons they would have to contact from the EOC to be in place and to wait for instructions from the EOC.
3. Arrive at the EOC with everything needed for operation:
 - a. Information
 - b. Plan and procedures
 - c. Formats
 - d. Forms
 - e. Maps
 - f. Stationery
 - g. Communications equipment
 - h. Directories
 - i. Inventories
4. Report to the Director of NEMO when arriving at the EOC

5. Be briefed on the situation and pending issues
6. Communicate with other members in the EOC for joint actions that have to be taken or for gathering of information.
7. Maintain a log sheet of action taken and return it to the chairperson only when the action is finished.
8. Establish communication with the members of their Committee/ Ministry/ Organisation that are taking action in their sectors, Ministries, in the field or in their offices.
9. Present a status on the situation every 12 hours to the chairperson and to the whole EOC.
10. Present a full situation report concerning the responsibilities of his/her Committee /Ministry/ Organisation, including damage assessment, actions taken and results, upon a visit of the Prime Minister to the EOC, or whenever a report is requested by the Prime Minister or by the Director of Operations.
11. Brief the relief officer every time before leaving the EOC in the change of shifts.
12. Be briefed upon return to the EOC. Repeat till the EOC is deactivated. See the EOC Manual for deactivation procedures.
13. At all times, provide information and resources to the EOC members.
14. Provide information and opinion for the decision, when needed, about the deactivation of the EOC.
15. After the deactivation of the EOC, notify the members of organisation/ Ministry/ about it.
16. Participate as a member of the reconstruction 'Agency for National Reconstruction' if it is needed.

END OF PROCEDURE FOR THE MEMBERS OF THE EOC

National Earthquake Plan Emergency Procedure 3 - Telecommunications

Objectives

To ensure that telecommunications are provided to NEMO and the EOC and its members in the case of the impact of an earthquake in order to conduct and co-ordinate the national emergency response as needed.

Responsible for the Procedure:

Main:

- National Telecoms Committee

Support:

- All Ministries

Steps of the Procedure

National Telecoms Committee:

Permanent:

1. Revised and update the National Telecommunications Plan to ensure that an adequate communications system exists to serve the communications needs for the NEMO before, during and after exists.
2. Advise NEMO on communications matters.
3. Advise on the purchases of emergency telecommunications equipment for the island and advise on the improvement, maintenance and upgrading of this equipment.
4. Establish a dynamic inventory of all equipment purchased by NEMO.
5. Develop and implement a radio operator-training programme in association with the radio operator-training officer through the facilities of NEMO.
6. Make annual review and revision of the radio operator-training programme.

7. Provide or suggest solutions, regarding telecommunications equipment and other telecommunications resources where needed according to existing resources in the different agencies in Saint Lucia and according to the telecommunications plan.
8. Develop and conduct a simulation exercise to test equipment on an annual basis under the coordination of NEMO.
9. Assist in preparing, participating in and assessing joint annual exercises with all response services of NEMO and submit after action reports to the NEMO.
10. Maintain a list of human and material resources.

After the Impact:

Once the EOC is activated, Report to the EOC

1. Be in charge of telecommunications to and from the EOC.
2. Manage all emergency telecommunications.
3. Liaise with the rest of the Disaster Committees and EOC members in order to respond to their needs.
4. Every 12 hours provide a Radio Operator for NEMO. When arriving at the EOC, prepare a roster for NEMO Director indicating name and time of arrival of radio operators to the EOC (1 radio operator every 12 hours).
5. Assist the EOC in the rehabilitation of the telecommunications network.
6. After the EOC is deactivated, prepare a report with recommendations regarding telecommunications: equipment, personnel, planning, etc.
7. Revise and update this procedure.
8. Revise and update the Telecommunications Plan.

After the Impact:

1. Provide telecommunication resources to the EOC and for the better operation of the Plan island-wide.
2. After the EOC is deactivated, prepare a final report and send it to NEMO.

END OF PROCEDURE FOR THE TELECOMS COMMITTEE

The EOC Members shall:

Permanent:

1. Identify their telecommunications resources
2. Identify the EOC and the Saint Lucia Earthquake Contingency Plan communications needs in the case of a disaster.
3. Identify their telecommunications needs from the EOC to their own organisation/ agency/ ministry.
4. Ensure that communication exists during EOC operations from the EOC to their own organisation/ agency/ ministry.
5. Provide information to the National Telecoms Committee regarding telecommunications resources in their own organisation/ agency/ ministry, so that resources can be optimised.
6. Participate in the design, implementation and testing of the telecommunications plan.
7. Participate in the planning, organisation, execution and evaluation of the yearly telecommunications exercise.

After the Impact:

1. Once the EOC is activated, report to the EOC and bring along the necessary communication equipment to communicate from the EOC to the organisation/ agency/ ministry they have to co-ordinate from the EOC.
2. Offer their telecommunication resources to the EOC as needed.
3. Include in their final report recommendations for the improvement of communications and the Telecommunications Plan.

END OF PROCEDURE FOR THE EOC MEMBERS

National Earthquake Plan Emergency Procedure 4 - Transportation

Objectives

To ensure that transportation is provided to NEMO and the EOC and its members in the case of the impact of an earthquake in order to conduct and co-ordinate the national emergency response as needed.

Responsible for the Procedure:

Main: National Transportation Committee

Support:

- EOC members

Steps of the Procedure.

National Transportation Committee shall:

Permanent:

1. Revise and update this procedure regularly.
2. Maintain a list of available land, sea and air transport resources from the public and private sector.
3. Maintain links with Local EM Corps
4. Update the list of transportation resources every year.
5. Submit the list of transportation resources every year to NEMO Secretariat.

After the Impact:

1. Once the EOC is activated, Report to the EOC.
2. Liaise with other EOC members in order to respond to their transport needs.

3. Co-ordinate with NEMO Director in order to provide transportation to EOC members if needed.
4. Provide aerial/sea transport for the initial aerial damage assessment if requested by the NEMO in the following order of priority:

Group 1:

1. Prime Minister
2. NEMO Director
3. Chair - Damage Assessment Committee
4. Chair - Works and Rehabilitation Committee Chairperson
5. Cameraman

Group 2:

1. Police Commissioner
 2. Chief Medical Officer
 3. Chair - Shelter Management Disaster Committee
 4. Representative Ministry of Agriculture
 5. Cameraman
5. Ensure that a panel van and an open back van are assigned to NEMO for transportation after the impact.
 6. Co-ordinate with NEMO and other EOC members to provide transportation of relief workers as needed.
 7. Coordinate with SLASPA and the National Welfare Committee to provide transportation for relief and rehabilitation supplies from the docks and airport to storage areas, warehouses and shelters.
 8. Co-ordinate with Police Force so as to provide transportation for land and sea evacuation.
 9. Co-ordinate with SLASPA, Police Force, Ministry of External Affairs and Ministry of Tourism to provide transportation for air/ sea evacuation of visitors out of the country if needed.
 10. Co-ordinate with NEMO and other EOC members for transportation of fuel to service points if needed.
 11. Co-ordinate with the Ministry of Health and National Welfare Committee for the transportation of injured, inside or outside the island if needed.

12. Co-ordinate with the Police Force and the Ministry of Health, National Welfare Committee and funeral homes for the transportation of dead people to Hospitals according to the *Management of Dead Bodies in Disaster Situations*
13. Co-ordinate with the Ministry of Agriculture to provide for transportation for dead animals.
14. Ensure the provision of transportation to assist in road clearing.
15. Assist with the provision of transportation for debris and garbage collection in roads and shelters and from collapsed buildings.
16. After 12 hours in the EOC be substituted by the relief officer. Come back to the EOC 12 hours later.
17. Always brief and be briefed by the relief officer when arriving and leaving the EOC. Repeat until the EOC is deactivated.
18. After the EOC is deactivated, prepare a report that includes situations faced, activities executed, results and recommendations and send it to NEMO.
19. Join the reconstruction Agency for National Reconstruction if required.
20. Revise and update this procedure.

END OF PROCEDURE FOR NATIONAL TRANSPORT COMMITTEE

The EOC Members shall:

Permanent:

1. Provide information to the National Transport Committee for the elaboration and updating of the list of transportation.
2. Keep their own lists of transportation vehicles updated at least every year.

After the Impact:

1. Provide transportation resources to the EOC and to the National Transport Committee as needed.

END OF PROCEDURE FOR MEMBERS OF THE EOC

National Earthquake Plan Emergency Procedure 5 - Evacuation

Objectives

To ensure that after the impact of an earthquake damaged and/or areas at risk are evacuated as needed.

Responsible for the Procedure:

Main:

- Commissioner of Police Force.

Support:

- Chief Fire Officer.

Steps of the Procedure.

The Commissioner of Police shall:

Permanent:

1. Establish co-ordination with NEMO and with the Local EM Corps to establish and improve evacuation mechanisms.
2. Establish co-ordination with all Agencies to ensure their assistance in the case of evacuation particularly with the National Transportation Committee
3. Be provided by NEMO, as supplied by the Ministry of Works, with the updated list of emergency shelters every year.

After the Impact:

1. Once the EOC is activated, Report to the EOC.
2. Report to the Director of Operations.
3. Be informed of the need of evacuation of specific areas.

4. Deploy Police Force personnel and vehicles (or boats) to co-ordinate evacuation activities.
5. Request support from EM Corps as needed in the case of evacuation.
6. Request assistance from the National Transport Committee when transportation and/or drivers are needed to conduct the evacuation process.
7. Request information and assistance from the Ministry of Works and from the SLASPA representative in the EOC regarding roads cleared and airports, seaports opening.
8. Request information from the National Emergency Shelters Committee regarding emergency shelters.
9. Assist in the evacuation of specific buildings as needed: hospitals, governmental buildings and any other that is in danger due to the earthquake effects.
10. In the case of evacuation of tourists/foreigners from the island, request/offer information and assistance from the Ministry of Tourism and from the Ministry of External Affairs
11. After 12 hours be substituted by the Deputy Commissioner of Police.
12. Return after 12 hours. Repeat until the EOC is deactivated
13. After the EOC is deactivated, prepare a final report of the Police Force activities and send it to NEMO.

END OF PROCEDURE FOR THE COMMISSIONER OF POLICE

The Chief Fire Officer shall:

Permanent:

1. Work jointly with the Police Force in the tasks regarding this procedure and the Earthquake Contingency Plan.
2. Know the Earthquake Contingency Plan, its procedures and his role in it and during an emergency or disaster, particularly activities regarding evacuation.

3. Participate in simulation exercises that test this procedure within the Earthquake Contingency Plan.

After the Impact:

1. Once the EOC is activated, report to the EOC and maintain communication with the Police Force and Fire Officers and work together in any evacuation issues as needed.

END OF PROCEDURE FOR CHIEF FIRE OFFICER

National Earthquake Plan Emergency Procedure 6 - Shelter Management

Objectives

To activate, operate and deactivate shelters in Saint Lucia in the case of a disaster caused by an earthquake.

Responsible for the Procedure:

Main: National Emergency Shelters Committee

Support:

- Saint Lucia Red Cross
- National Welfare Committee
- School Principals
- Teachers Union
- Religious Organisations in Saint Lucia
- Managers Community Centres

Steps of the Procedure.

National Emergency Shelters Committee shall:

Permanent:

1. Receive from NEMO, the list of shelters updated yearly before May 31st after the yearly physical inspection of shelters by the Ministry of Works.
2. Distribute the list of shelters to all shelter managers from all shelters mentioned in the list: schools, churches, etc.
3. Maintain a list of open spaces [using GPS coordinates] that can be used as camp sites.
4. Ensure, jointly with NEMO, that the list of shelters is published in the Gazette annually.
5. Promote and ensure that schools and other buildings designated as shelters are retrofitted when needed in order to remain secure and considered as shelters.
6. Have a list of personnel responsible for each shelter (shelter managers): school principals, social organisations, churches, etc., permanently updated and ready before May 31st

every year including names, phone numbers and addresses of shelter managers and deputies.

7. Revise and ensure an update of a map of Saint Lucia showing location of shelters all over the country to be used for planning purposes and that can be used in the EOC.
8. Ensure that the personnel responsible for shelter activation and operations is trained in shelter management.
9. Maintain contact with NEMO, Police Force and with other Committees to plan the operations of shelters, particularly regarding:
 - a. activation after evacuation, security and deactivation
 - b. damage to shelters and needs of the sheltered population.
10. Submit, before May 31st every year, the list/directory of personnel responsible for shelter management to NEMO.
11. Have at least one meeting before May 31st each year with all Support Agencies to revise plan and procedures, resources, inventories, directories and supplies for shelter management and ensure that all members, shelters and shelter managers are ready.
12. Keep in a state of preparedness the information required for the EOC (maps, forms, inventories, directories, list of shelters and personnel responsible for their activation and operations, etc.)

After the Impact:

1. Report to the EOC.
2. Report to the Director of Operations.
3. Assist in setting up the EOC
4. Ensure, along with the Ministry of Works, that within one month after the impact of the earthquake, all shelters are re-certified as fit for use and submit revised list to NEMO.
5. In case of evacuation of endangered/damaged areas is needed, assist the EOC by informing about shelters availability and capacity.
6. Establish contact with the personnel responsible for activating the shelters to establish if they activated their shelter to receive population from evacuated areas.

7. Co-ordinate with NEMO and the National Telecoms Committee to ensure that the EM Corps are notified about the activation of shelters and that the population in general is notified through Media broadcast about this situation, particularly those from endangered/affected areas that have to be evacuated.
8. Co-ordinate with the Ministry of Health regarding any needs in the activated shelters.
9. Always inform the Ministry of Works about damage and needs in shelters.
10. Co-ordinate with the Police Force for any security problems that may arise in the shelters.
11. Co-ordinate with the Ministry of Works, the Police Force and National Transport Committee in the case where areas where already-activated shelters are in danger and have to be evacuated. Indicate possible alternate shelters and their capacities, so evacuation can be planned and conducted.
12. Prepare reports at least every 12 hours and when needed in the EOC about the operation of the shelters.
13. Deactivate (and activate) shelters only when it is decided with NEMO and the rest of the EOC members involved.
14. After 12 hours of activation of the EOC, leave the EOC and be replaced by an alternate.
15. Return 12 hours later to the EOC and replace the alternate.
16. Always brief and be briefed when arriving or leaving the EOC. Repeat until the EOC is deactivated.
17. After the EOC is deactivated, prepare a final report and send it to NEMO; participate in the rehabilitation/ reconstruction 'Agency for National Reconstruction' that would be housed at the Ministry of Physical Development as needed.
18. Participate, as needed, in the reconstruction process to ensure that mitigation measures are included in buildings that are considered as shelters.

**END OF PROCEDURE FOR THE NATIONAL EMERGENCY SHELTER
COMMITTEE**

**National Earthquake Plan
Emergency Procedure 7 - Urban Search and Rescue**

Objectives.

To search for, and rescue personnel and their belongings, missing, lost or affected on land due to the earthquake effects.

Responsible for the Procedure.

Main: Saint Lucia Fire Service.

Support: Saint Lucia Police Force

Steps of the Procedure.

The Chief Fire Officer shall:

Permanent:

1. Formulate comprehensive search and rescue plans, training programmes and simulations to cope with:
 - a. Search and rescue of trapped persons to include:
 - i. Vehicle extraction
 - ii. Rescue from collapsed buildings
 - iii. High angle rescue
 - iv. Rescue under toxic conditions
 - b. First aid treatment for disaster victims
 - c. Triage and hospital evacuation of victims
 - d. Incident Command System

After the Impact:

1. Once the EOC is activated, in collaboration with the National Transport Committee conduct an inventory of all vehicles and equipment required for urban search and rescue operations.
2. Report to the EOC.
3. Report to the Director of Operations.

4. Be informed of the need of Urban Search and rescue in specific areas or buildings.
5. Deploy personnel, equipment and vehicles to co-ordinate and execute search and rescue activities where needed.
6. Provide the on-scene commander for search and rescue, and fire fighting operations.
7. Request from the National Transportation Committee any heavy equipment and/or drivers that are needed to conduct the search and rescue operations.
8. Co-ordinate Operations with the
 - a. Ministry of Health
 - b. UNDAC Team³.
9. Provide assistance, if needed, to the Police Force in the case of maritime search and rescue.
10. After 12 hours be substituted by the Deputy Chief Fire Officer.
11. Return after 12 hours. Always be briefed. Repeat until the EOC is deactivated
12. After the EOC is deactivated, prepare a final report of the Fire Service activities and send it to NEMO.

END OF PROCEDURE FOR THE FIRE CHIEF

Deputy Commissioner of Police

Permanent:

1. Assist the Chief Fire Officer in his tasks regarding this procedure and the Earthquake Contingency Plan.
2. Know the Earthquake Contingency Plan, its procedures and his role in it, and during an emergency or disaster, particularly his activities and responsibilities regarding search and rescue.

³ United Nations Disaster and Coordination – responsible for coordinating International USAR Teams

3. Participate in simulation exercises that test this procedure and/or Police Force within the Earthquake Contingency Plan.
4. Work jointly with the Chief Fire Officer in order to identify and optimise resources that would be used in search and rescue in the case of an emergency or a disaster.

After the Impact:

1. Once the EOC is activated, establish communication, with the Chief Fire Officer and assist him with Police Force resources in Urban Search and Rescue matters as needed.

END OF PROCEDURE

National Earthquake Plan Emergency Procedure 8 - Security

Objectives

To provide security for the population, for their belongings, for public key infrastructure and for response teams in specific areas endangered or affected by earthquakes.

Responsible for the Procedure:

Main: Commissioner of Police Force

Support:

Steps of the Procedure.

The Commissioner of Police

Permanent:

1. Identify, with the assistance of NEMO, all the areas, infrastructure, buildings and activities in Saint Lucia that are likely to need security in the case of an emergency or a disaster; these may include:
 - a. EOCs
 - b. Key governmental buildings
 - c. Hospitals
 - d. Affected and/or evacuated areas
 - e. Shelters
 - f. Airports and seaports
 - g. Prison

After the Impact:

1. Once the EOC is activated, report to the EOC with equipment and information needed.
2. Report to the Director of Operations.
3. Deploy two police officers to the EOC for security purposes. Change the Officers every 12 hours until the EOC is deactivated.
4. Be briefed by the security personnel every 12 hours in the EOC.

5. Be informed of the need for security in specific areas or buildings.
6. Deploy Police Force personnel and vehicles (or boats) to co-ordinate security activities.
7. Deploy personnel to control traffic in critical areas where traffic is causing trouble due to the effects of the earthquake.
8. Request assistance from the National Transportation Committee when transportation and/or drivers are needed to conduct the evacuation process.
9. Ensure security at
 - a. Shelters as needed and in co-ordination with Local EM Corps and the National Welfare Committee.
 - b. Specific buildings as needed: hospitals, government buildings and any other that had been affected and/or whose assets are endangered.
 - c. Airports and seaports particularly in the case of damage, evacuation and/reception of goods and supplies from overseas.
10. Deploy personnel for crowd control where needed.
11. Deploy personnel to prevent and avoid looting in specific areas as needed.
12. In the case of casualties (deaths), provide security to areas where bodies are being collected and co-ordinate with the Ministry of Health and the National Transportation Committee for subsequent actions.
13. Establish co-ordination with the CDRU, the RSS or any other military forces that arrive in the country.
14. After 12 hours be substituted by the Deputy Commissioner of Police Force.
15. Return after 12 hours. Repeat until the EOC is deactivated.
16. After the EOC is deactivated, prepare a final report of the Police Force activities and send it to NEMO.

END OF PROCEDURE FOR THE COMMISSIONER OF POLICE

National Earthquake Plan Emergency Procedure 9 - Medical Attention

Objectives

To provide medical services and attention for the affected population after a disaster after an earthquake.

Responsible for the Procedure:

Main: Ministry of Health.

Support:

Steps of the Procedure.

The Chief Medical Officer shall:

Permanent:

1. Revise and update this procedure at least once a year and always after a simulation exercise and a real event.
2. Keep an updated directory of hospitals and clinics in Saint Lucia.
3. Keep an inventory of resources for medical attention in Saint Lucia: hospitals, clinics and capacity, doctors, ambulances, etc.
4. Meet regularly with the Health Sector to improve the Ministry of Health various response plan and this procedure and improve mechanisms for medical attention of injured personnel in disasters particularly for earthquakes.
5. Identify human resources in the country for medical attention (physical and mental health). Establish co-ordination mechanisms in the case of a response during a disaster.
6. Ensure that specific emergency response plans are written for hospitals and for mass casualty management.
7. Ensure that, in co-ordination with NEMO and the Ministry of Health, training is provided to create mass casualty management teams in the country.

8. Maintain contact with regional and international organisations to get assistance for training and emergency planning in medical attention during disasters.
9. Maintain contact with NEMO, the Relevant Ministries and Local EM Corps to strengthen co-ordination mechanisms for health emergency preparedness, emergency response and disaster relief

After the Impact:

1. Once the EOC is activated, prepare all the information needed to be brought to the EOC (the MOH Response Plan, maps, forms, inventories, directories, etc.)
2. Report to the EOC.
3. Report to the Director of Operations.
4. Assist in setting up the EOC
5. Participate, in the aerial damage assessment and gather information about damage to areas where medical attention facilities are located or where are likely to be needed.
6. Brief the EOC after the Rapid Aerial Damage Assessment.
7. Establish contact and receive information from the MOH and hospitals and clinics to determine the damage to the health sector.
8. Based on information provided by the MOH, hospitals and clinics inform the National Transportation Committee about the damage and needs for the Health Sector.
9. Ensure that proper medical attention, physical and mental, is given to all the population traumatised by the impact of the earthquake.
10. Request assistance as needed from the rest of the EOC members, particularly regarding transportation of the injured inside and outside Saint Lucia, road clearing and transportation of medical supplies and resources.
11. In the case of a mass casualty event, establish a mass casualty system with the participation of the Police Force, the Fire Service and other EOC Committees as needed.

12. Co-ordinate with the Police Force for any security problems that may arise in medical facilities.
13. In the instance of the need for international assistance, always inform NEMO, the Ministry of External Affairs representative in the EOC and National Welfare Committee.
14. If PAHO, the UN Cluster or any other international organisations are contacted, and assistance is provided, ensure that the Ministry of External Affairs and NEMO Secretariat are always contacted and informed about the assistance and the entrance into the country.
15. After 12 hours in the EOC leave the EOC and be substituted by the Medical Officer designated.
16. Return 12 hours later to the EOC and substitute for the Medical Officer.
17. Always brief and be briefed by the Medical Officer when arriving and leaving the EOC after every twelve-hour shift. Repeat until the EOC is deactivated.
18. After the EOC is deactivated, prepare a final report and send it to NEMO and participate, if needed, in the rehabilitation/reconstruction 'Agency for National Reconstruction' that will be located at the Ministry of Physical Development.
19. Revise and update this procedure.

END OF PROCEDURE FOR THE CHIEF MEDICAL OFFICER

National Earthquake Plan
Emergency Procedure 10 - Environmental Health

Objectives

To implement environmental health activities after the impact of a disaster caused by an earthquake in Saint Lucia.

Responsible for the Procedure:

Main: Chief Environmental Health Officer

Support:

Steps of the Procedure.

The Chief Environmental Health Officer shall:

Permanent:

1. Revise and update this procedure at least once a year and always after a simulation exercise and a real event.
2. Keep an updated directory of environmental health inspectors
3. Keep an updated inventory of equipment and materials that would be used for environmental health activities in the case of a disaster.
4. Meet regularly with the staff to improve this procedure and improve mechanisms for environmental health.
5. Ensure that specific plans and or specific procedures are written for environmental health activities during a disaster such as:
 - a. adequate quality and quantity of water supply,
 - b. food safety,
 - c. vector control,
 - d. epidemiological survey and
 - e. adequate disposal of the dead
6. Maintain contact with regional and international organisations to get assistance for training on environmental health issues.

7. Maintain contact with NEMO, other Relevant Ministries and Local EM Corps to strengthen co-ordination mechanisms for the implementation of environmental health activities in disasters.
8. Prepare all the information to be brought to the EOC if it is activated (maps, forms, inventories, directories, etc.)

After the Impact:

1. Once the EOC is activated ensure that personnel responsible for environmental health is notified immediately of the situation in order to have everything ready to respond when and where needed.
2. Report to the EOC.
3. Report to the Director of Operations.
4. Assist in setting up the EOC.
5. Establish contact and receive information from hospitals and clinics to determine the damage and needs to the health sector and to critical infrastructure that would determine environmental health intervention (water supply, food sector, waste disposal).
6. Maintain contact and co-ordination with NEMO, the Health Sector, the Local EM Corps and the rest of the EOC members to determine areas where environmental health action has to be taken.
7. Ensure the adequate quality and quantity of water supply is provided to the population. Co-ordinate with the Members of the EOC and International Community as needed.
8. Ensure that food safety measures are taken in food distribution sites, shelters and ports of entry. Co-ordinate with the members of the EOC and International Community as needed.
9. Ensure that the garbage and debris collection and disposal is not interrupted and that the Solid Waste Management Authority continues to function and where necessary focus on critical areas: shelters, roads, ports of entry, collapsed buildings, etc.

10. Ensure that vector control activities (mosquitoes, rodent and others) is done in areas where needed. Co-ordinate with the rest of the members of the EOC and the International Community as needed.
11. Establish/increase epidemiological surveillance activities, particularly in shelters and other places with large concentration of displaced population. Co-ordinate with the rest of the members of the EOC and the International Community as needed.
12. Co-ordinate with the rest of the members of the EOC and the International Community as needed, particularly with Police Force and National Transportation Committee for the adequate handling (sanitary) of dead bodies (collection, storage, transportation, and identification, delivery to next of kin and final disposal).
13. Co-ordinate with the Government Information Service to ensure that adequate information regarding dead bodies is disseminated in order to avoid false rumours about epidemics.
14. In the case of assistance from the International Community, always inform NEMO, MOH, the Ministry of External Affairs representative in the EOC.
15. If PAHO or any other member of the International Community are contacted, and assistance is provided, ensure that the Foreign Ministry, the MOH and NEMO are always contacted and informed about the assistance and the entrance of it to the country (environmental health experts, vector control equipment, rodenticides, pesticides, water testing kits, personal protection equipment, water, chlorine tablets, etc.)
16. After 12 hours in the EOC leave the EOC and be substituted by the Medical Officer designated.
17. Return 12 hours later to the EOC and substitute for the designated Medical Officer in the EOC.
18. Always brief and be briefed by the Medical Officer designated when arriving or leaving the EOC after every twelve-hour shift. Repeat until the EOC is deactivated.
19. After the EOC is deactivated, prepare a final report and send it to NEMO and participate, if needed, in the rehabilitation/reconstruction 'Agency for National Reconstruction' that will be at the Ministry of Physical Development

20. Participate, as needed, in the reconstruction process to ensure that environmental health measures are implemented.

21. Revise and update this procedure.

END OF PROCEDURE FOR THE CHIEF ENVIRONMENTAL HEALTH OFFICER

National Earthquake Plan

Emergency Procedure 11 - Damage Assessment and Needs Analysis

Objectives

To assess damage in Saint Lucia after the impact of an earthquake in terms of elements damaged and cost estimate to determine type and amount of assistance needed for relief, rehabilitation and reconstruction.

Responsible for the Procedure:

Main: National Damage Assessment Committee [DANA]

Support:

Steps of the Procedure.

The Committee shall:

Permanent:

1. Revise and update this procedure and its attachments at least once a year and always after a simulation exercise and a real event.
2. Keep an updated directory of persons trained in damage assessment.
3. Maintain contact with NEMO, other Relevant Ministries and Local EM Corps to strengthen co-ordination mechanisms for damage assessment.

After the Impact:

1. Once the EOC is activated, inform all the DANA Trained Persons and prepare all the information to be brought to the EOC (maps, damage assessment evaluation forms, directories, etc.)
2. Report to the EOC
3. Report to the Director of Operations.
4. Assist in setting up the EOC

5. Participate in the Initial Aerial Damage Assessment to gather information about areas damages due to the earthquake impact.
6. Brief the EOC after the Initial Aerial Damage Assessment in order to know the situation and establish priorities.
7. Dispatch damage assessment teams to assess specific damage in priority areas.
8. Request information from the Utility Companies about damage to water supply (intakes, pipes, tanks) and sewage systems, telephone poles and lines.
9. Request and receive information from the :
 - a. Ministry of Works and the Ministry of Physical Development about damage to roads and bridges.
 - b. Ministry of Agriculture about damage to crops, fisheries and livestock.
 - c. Ministry of Health about damage to the health sector (hospitals, clinics, equipment, medicines.)
 - d. The Saint Lucia Port Authority about damage assessment to air and seaports
 - e. Tourism Sector about damage to buildings and infrastructure
 - f. Ministry of Education about damage to Education Facilities, and
 - g. Rest of the EOC members and the EM Corps information about damage assessments
10. Prepare a damage assessment report every 12 hours or earlier if needed for the EOC or the Prime Minister.
11. Assist the National Welfare Committee, the Director of Operations and Director NEMO in writing the needs list for Saint Lucia.
12. After 12 hours in the EOC leave the EOC and be substituted by a relief officer.
13. Return 12 hours later to the EOC and replace the relief officer.
14. Always brief and be briefed by the relief officer when arriving or leaving the EOC in every 12-hour shift. Repeat until the EOC is deactivated.
15. After the EOC is deactivated, prepare a final report and send it to NEMO and participate, if needed, in the rehabilitation/reconstruction 'Agency for National Reconstruction' that will be at the Ministry of Physical Development

16. Participate, as needed, in the reconstruction process to advise where possible, whether mitigation measures are included in buildings that are considered as shelters.

17. Revise and update this procedure.

END OF PROCEDURE FOR THE NATIONAL DANA COMMITTEE

National Earthquake Plan Emergency Procedure 12 - External Assistance

Objectives

To take care of all affairs that demand contact with other countries and sub-regional, regional and international organisations by being the only official channel for the Government of Saint Lucia for the offer, request and receipt of information and donations during a disaster in the country caused by an earthquake.

Responsible for the Procedure:

Main: Ministry of External Affairs

Support: Office of the Prime Minister

Steps of the Procedure.

The Ministry of External Affairs shall:

Permanent:

1. Revise and update this procedure and its attachments at least once a year and always after a simulation exercise and a real event.
2. Keep an updated directory of Ministries of Foreign Affairs from other countries, and from sub-regional, regional and international organisations and agencies involved in disaster response and relief.
3. Keep an updated directory of external embassies and regional, sub-regional and international organisations and companies that have external personnel working and living in Saint Lucia.
4. Maintain a list of Saint Lucia Offices overseas.
5. Maintain contact with NEMO and other Relevant Ministries to strengthen co-ordination mechanisms for international assistance.
6. Define with NEMO and the National Welfare Committee on the mechanisms for information to be shared with international community and for the request and receipt of donations in the case of a disaster.

7. Inform other countries and sub-regional, regional and international organisations about these mechanisms and about the channels to follow for information and the offer, request and receipt of international assistance in Saint Lucia.
8. Ensure that all the EOC members know that the Ministry of External Affairs is the only official channel for the Government of Saint Lucia for the offer, request and receipt of information and donations during and after a disaster in the country.
9. Ensure that all the EOC members know that they have to inform the Ministry of External Affairs in the EOC about any issue or communications regarding the offer, request and receipt of foreign assistance.

After the Impact:

1. Once the EOC is activated, report to the EOC.
2. Report to the Director of the EOC.
3. Assist in setting up the EOC. Ensure that there is communication between the EOC and the International Agencies.
4. Assist the Director of Operations and members in any issue that involves external issues.
5. Maintain contact with the DANA Committee to be informed about the damage assessment situation.
6. Jointly with NEMO, the DANA Committee, National Welfare Committee and other EOC members as needed, write the needs list of Saint Lucia and agree on the mechanisms to follow for its request, and on the organisations to be contacted.
7. Jointly with the NEMO Secretariat, the Government Information Service and other EOC members as needed, participate in the preparation of any official statement that would be broadcast overseas or sent officially to International, Regional or Sub-regional organisations and agencies.
8. Be informed of any communication from or to other countries, and from and to any international, regional and sub-regional organisation regarding the disaster situation and the request and receipt of international assistance.

9. Be informed by the National Welfare Committee about any international assistance that arrives in the country. Always inform the Director of Operations and the EOC members.
10. Ensure, along with NEMO and the National Welfare Committee, that a follow up is given to the needs list and to the official request for international assistance.
11. Ensure, along with NEMO, the Comptroller of Customs, the National Welfare Committee, the Police Force and SLASPA, that no un-requested supplies are received and accepted into the country. Ensure that they are not received and that they are taken back by the country or organisation that intended to bring them into the country.
12. After 12 hours in the EOC leave the EOC and be substituted by the relief officer.
13. Return 12 hours later to the EOC and relieve the officer.
14. Always brief and be briefed by the Relief Officer when arriving or leaving the EOC in every 12-hour shift. Repeat until the EOC is deactivated.
15. After the EOC is deactivated, prepare a final report and send it to NEMO and participate, if needed, in the rehabilitation/reconstruction Agency for National Reconstruction that would be within the Ministry of Physical Development
16. Participate, as needed, in the reconstruction process particularly in matters regarding foreign assistance. Always be informed of the results and impact of the assistance received.
17. Revise and update this procedure.

END OF PROCEDURE FOR THE MINISTRY OF EXTERNAL AFFAIRS

Office of the Prime Minister

Permanent:

1. Assist the Ministry of External Affairs in its tasks regarding this procedure and the Earthquake Contingency Plan.
2. Know the Earthquake Contingency Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding foreign assistance.

3. Participate in simulation exercises that test this procedure.

After the Impact:

1. Once the EOC is activated, maintain communication with the Ministry of External Affairs and assist him/her in any matters related to external affairs.
2. After 12 hours of activation of the EOC substitute for the Director of Operations.
3. Rotate with the Director until the EOC is deactivated. Always brief and be briefed when arriving or leaving the EOC in every 12-hour shift.

END OF PROCEDURE FOR THE OFFICE OF THE PRIME MINISTER

National Earthquake Plan Emergency Procedure 13 - Supply Management

Objectives

To manage (receipt, storage, sorting, transportation and distribution) of relief supplies (national and foreign) after a disaster caused by an earthquake.

Responsible for the Procedure:

Main: Supplies Management Committee

Support:

- EOC members

Steps of the Procedure.

The Committee shall:

Permanent:

1. Meet regularly with members to:
 - a. Assign roles and responsibilities and identify activities regarding supplies and supply management.
 - b. Identify possible needs for the population after a disaster.
 - c. Identify sources of supplies and suppliers:
 - i. national [governmental and private for food and water],
 - ii. regional [CDEMA, ECDG] and
 - iii. international [UN Cluster, PAHO, Red Cross, ADRA, etc.]
 - d. Establish and agree on communications and co-ordination mechanisms for supply management and donations in the case of a disaster.
2. Co-ordinate with the DANA Committee to establish mechanisms for the determination of needs in the case of a disaster.
3. Co-ordinate with NEMO and the Ministry of External Affairs for the request, receipt, storage and distribution of supplies coming from other countries and from Regional and International Organisations.
4. Establish and ensure a SUMA Team is formed and trained in the country. Establish co-ordination mechanisms with NEMO in accordance with PAHO and CDEMA guidelines.

5. Keep an updated directory of all donors, their roles and the kind of assistance they will provide in the case of a disaster (manpower, donations, water supply, food supply, etc.).
6. Provide NEMO and Ministry of External Affairs with a copy of the directory every year.

After the Impact:

1. Once the EOC is activated, report to the EOC.
2. Assist in setting up the EOC.
3. Establish communication with the DANA Committee to determine the needs of the country based on the assessment of damage to identify specific needs in specific areas.
4. Establish communication with the National Welfare Committee to identify needs in shelters and with Local EM Corps to find out their needs.
5. Based on the damage assessment reports prepare the needs report identifying what supplies are needed, what supplies can be provided from internal sources and what can be provided by regional and international sources.
6. Manage the distribution of supplies where they are needed.
7. If transportation is required for the management of supplies, request the assistance of the National Transportation Committee.
8. Consult with the Director of Operations and with the rest of the EOC members about the needs list and prepare the final version to be distributed to NEMO Director and the Ministry of External Affairs.
9. Depending on the needs that are to be requested and received from regional and international sources, decide, after consultation with the EOC, if the SUMA team is to be activated or if a SUMA team would be needed from PAHO.
10. Prepare a final report after the EOC has been deactivated.

END OF PROCEDURES FOR THE SUPPLIES MANAGEMENT COMMITTEE

The EOC Members shall:

After the Impact:

1. Assist the Committee in the co-ordination of the management of supplies after a disaster.
2. Provide information to the National Welfare Committee regarding needs. At all times indicate type of supplies, location where needed and amount needed.
3. Assist the Committee in the preparation of the final report regarding supply management.

END OF PROCEDURE

National Earthquake Plan Emergency Procedure 14 - Public Information

Objectives

To disseminate information, in English and Creole, for the people of Saint Lucia and, when needed, for the rest of the world, through the Media or through the Prime Minister or any other government official authorised to do so, to report about the impact of earthquakes in Saint Lucia, damage caused, measures taken by the government and results, and measures to be taken by the population to protect their lives and property.

Responsible for the Procedure:

Main: Government Information Service

Support: Information and Education Committee

Steps of the Procedure.

The Director Information Service shall:

Permanent:

1. Revise and update this procedure and its attachments at least once a year and always after a simulation exercise and a real event.
2. Design, produce and conduct and evaluate a national public awareness campaign to increase the population's awareness about earthquakes that can impact Saint Lucia and about the measures the population has to take to protect their lives and belongings.
3. Provide training to Committees on interacting with the media and on the conducting of a Public Relations/Education campaign.
4. Establish and improve mechanisms for the dissemination of governmental information in the case of emergency and disasters.

After the impact:

1. Once the EOC is activated, Report to the EOC.
2. Report to the Director of Operations.

3. Assist in setting up the EOC.
4. Ensure that there is communication between the EOC and the Media. Check the emergency broadcast system: check the emergency telephone hotlines.
5. Ensure that the re-certified shelters list is given blanket coverage in the media.
6. Prepare an immediate report about the situation with information provided by the Scientists to NEMO and the initial damage reports as well as information to the public to avoid rumours and protect their lives and property.
7. Immediately after the initial assessment team briefs the EOC, prepare an initial report to be sent to the Media including: hazard characteristics, damage assessment, initial response and results, and recommendations for the population.
8. With information from NEMO and the rest of the EOC members as needed, prepare and update a report every 6 hours after the initial report for the media.
9. Maintain contact with the members of the Media. Request updated information from the Director of Operations, NEMO and the rest of the EOC members as needed.
10. Get the approval and consensus of the EOC before the broadcast of every six-hour report and before sending the Prime Minister's address to the Nation.
11. Prepare the text of the Prime Minister's Address to the Nation when requested by the EOC.
12. Inform the EOC about any special request of information from the media
13. Consult on press releases of the Ministry for External Affairs/IEOC⁴ and the Ministry of Tourism/CMC⁵.
14. After 12 hours in the EOC leave the EOC and be substituted by the Principal Information Officer.
15. Return 12 hours later to the EOC and replace the relief officer.

⁴ International EOC

⁵ Crisis Management Centre

16. Always brief and be briefed by the relief officer when arriving or leaving the EOC in every 12-hour shift. Repeat until the EOC is deactivated.
17. After the EOC is deactivated, prepare a final report to be disseminated. Send a copy to NEMO to be included in the Plan.
18. Revise and update this procedure.

END OF PROCEDURE FOR THE DIRECTOR INFORMATION SERVICE

The Information and Education Committee shall:

Permanent:

1. Assist the NEMO in its tasks regarding this procedure and the Earthquake Contingency Plan.
2. Know the Earthquake Contingency Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding Public Information.
3. Participate in simulation exercises that test this procedure.

After the impact

1. Once the EOC is activated, assist the NEMO in any public information matters.
2. After 12 hours of activation of the EOC be replaced by relief officer.
3. Every 12 hours by the relief the officer. Repeat until the EOC is deactivated.
4. Assist the Director of Operations in the preparation of the final report.

END OF PROCEDURE

National Earthquake Plan
Emergency Procedure 15 - Protection and Rehabilitation of Infrastructure

Objectives

To assess and repair damage to terrestrial communications and public utilities after the impact of an earthquake

Responsible for the Procedure:

Main: Ministry of Works

Support:

- All Ministries
- EOC members
- Ministry of Physical Development

Steps of the Procedure.

The Ministry of Works shall:

Permanent:

1. Maintain a list of necessary light and heavy equipment (from chainsaw to bulldozer).
2. Maintain a list of all voluntary personnel for immediate post impact action.
3. Identify potential communication and public utilities failures.
4. Maintain close contact with Utility companies and main private contractors to identify resources and establish coordination and response mechanisms.
5. Assist in developing memoranda of understanding with private companies.
6. Assist in the implementation of mitigation measures.
7. Establish damage assessment teams for the evaluation of damage to roads and bridges.

8. Co-ordinate with the DANA Committee for the preparation of information about damage assessment to roads and bridges and forward to the EOC for the damage assessment and needs analysis.

After the Impact:

1. Request information from NEOC.
2. Hold a meeting with the Ministry personnel (including damage assessment teams). Brief them about the situation and ask them to be ready to respond.
3. Once the EOC is activated, report to the EOC.
4. Assist in setting up the EOC.
5. Establish co-ordination with the DANA Committee for damage assessment reports.
6. Establish co-ordination with the SLASPA representative in the EOC for the assessment and prompt rehabilitation of air and seaports.
7. Assist Local EM Corps in their emergency work.
8. After the EOC is deactivated, prepare a final report and send it to NEMO and establish the rehabilitation/reconstruction Agency for National Reconstruction that would reside in the Ministry of Physical Planning.
9. Assist in the Reconstruction Committee until final reconstruction of overall damage.
10. Ensure that mitigation measures are included in the rehabilitation/reconstruction process.

END OF PROCEDURE FOR THE MINISTRY OF WORKS

The EOC Members shall:

After the Impact:

1. Once the EOC is activated, report in.
2. After the EOC is deactivated, prepare a final report and send it to NEMO and join the rehabilitation/reconstruction Agency for National Reconstruction that would be within the Ministry of Physical Development.

END OF PROCEDURE

National Earthquake Plan

Emergency Procedure 16 - Environmental Protection and Rehabilitation

Objectives

To protect the environment after the impact of an earthquake and to rehabilitate the environment damaged or altered by the earthquake impact.

Responsible for the Procedure:

Main: Ministry of Environment

Support:

- Solid Waste Management Authority
- Ministry of Health

Steps of the Procedure.

The Ministry of Environment shall:

Permanent:

1. Revise and update this procedure and its attachments at least once a year and always after a simulation exercise and a real event.
2. Establish regular contact with NEMO and the Relevant Ministries to identify environmental impacts after disasters, possible solutions and resources needed for mitigation and restoration measures.
3. Maintain contact with NEMO and with the Government Information Service in order to determine and recommend environmental protection measures in the case of the impact of an earthquake to be included in the public awareness campaigns, and in emergency broadcast through the Media.
4. Identify activities the population and the governmental and private agencies have to execute after the impact of earthquakes in Saint Lucia to avoid adverse effects in the environment such as: water and underground water contamination, air pollution, soil contamination, destruction/alteration of habitats, effects on forestry, flora and fauna (endemic and endangered species), garbage generation and waste management in

disasters, effects on beaches and in specific environmentally protected areas, historical/archaeological sites, etc.

After the Impact:

1. Once the EOC is activated, Report to the EOC.
2. Maintain contact with the Ministry of Physical Development, the Ministry of Agriculture and environmental organisations to receive information about any environmental damage and actions needed.
3. Ensure that garbage and debris are collected from roads, ports, shelters, and other key locations and from collapsed buildings according to priorities set by the EOC and according to resources available.
4. Revise and update this procedure after the event.

END OF PROCEDURE

National Earthquake Plan Emergency Procedure 17 - Reconstruction

Objectives

To reconstruct infrastructure and the environment to recover from the impact of an earthquake and its effects until society is back to normal and all its interrupted needs are satisfied, always considering mitigation, vulnerability reduction and improvement of the response capacity in the process.

Responsible for the Procedure:

Main: Office of the Prime Minister

Support: All Ministries

Steps of the Procedure:

The Office of the Prime Minister shall:

Permanent :

1. Ensure the establishment of a contingency fund in case it is needed after the earthquake strikes. Establish co-ordination with the Ministry of Finance, NEMO and any other Ministry or agency involved in the establishment of this contingency fund and its amount.

After the Impact:

1. Based on the final damage assessment report, establish priorities and identify sources of financing of projects.
2. Establish an *Agency for National Reconstruction [ANR]* after the EOC is deactivated for the purposes of the continuation of the rehabilitation of services and the commencement of the reconstruction process.
3. Membership of the *Agency for National Reconstruction* shall consist of every Permanent Secretaries and their Deputies, with
 - a. The Cabinet Secretary as Chair of ANR
 - b. Administrative Support from the Office of the Prime Minister
 - c. The NEMO Secretariat as Ex Officio member
 - d. Any other Technical Officer as need

END OF PROCEDURE

National Earthquake Plan
Emergency Procedure 18 – Local EM Corps General Procedure (Earthquake)

Objectives

To identify vulnerability and risks, respond and provide relief after an earthquake impact.

Responsible for the Procedure:

Main: Local EM Corps

Support:

- All Members of NEMO
- NEMO Secretariat

Steps of the Procedure.

The Local EM Corps shall:

Permanent:

1. Meet with the Committee and revise and update this procedure and its attachments at least once a year and always after a simulation exercise and a real event.
2. Ensure that the Local EM Corps has amongst its members:
 - a. Principals of schools
 - b. All service clubs
 - c. Churches
 - d. Red Cross
 - e. Development Committee
 - f. Fishermen's cooperative
 - g. Radio amateurs/citizen band
 - h. Farmer groups
 - i. Youth Organisations
 - j. Mothers and Fathers groups
 - k. Minibus, Taxi Associations
 - l. Markets/Supermarkets
 - m. Police Force representative
 - n. Fire Service representative
 - o. Ministry of Health representative
 - p. Private companies

3. Ensure that the Local EM Corps is organised and working efficiently;
4. Inform all Committee members about the location of the District EOC and discuss their functions during a disaster.
5. Identify means of communication between the Local EM Corps EOC and the committee members.

After the Impact:

1. If the National EOC is activated, activate the District EOC and remain there.
2. Notify the rest of the Local EM Corps members that the District EOC has been activated.
3. Ensure that re-certified shelter list is received and circulated.
4. Contact neighbouring Local EM Corps.
5. Make an initial assessment of the situation.
6. Inform NEMO about the situation and ask for instructions.
7. As much as possible address any problems in the Community due to the earthquake impact by asking the Committee members to take immediate action according to their responsibilities.
8. Keep an uninterrupted contact with the National EOC and inform them about the situation, actions taken and results.
9. Activate shelters according to the needs, and inform the NEMO and the EOC. Call shelter managers to duty.
10. Manage the Department resources to solve any situations due to the earthquake impact.
11. Request and offer assistance and resources to and from neighbouring Local EM Corps as needed.
12. If the situation overwhelms all the resources of the Committee, its members and organisations, request assistance from the National EOC.

13. Every twelve hours after the DEOC activation change personnel through shifts.
14. Prepare reports of the situation every six hours and general final report after the EOC and the DEOC are deactivated.
15. Send all reports to the EOC and NEMO. (Situation report every six hours and final report.)
16. Revise and update this procedure after the event.

END OF PROCEDURE

Appendices

Appendix 1 – Levels of Regional Response

The extent of CDEMA's involvement in disaster response operations in Participating States depends on the severity of the situation and the type of assistance required by affected States. Three levels of regional response have been defined:

| LEVELS OF REGIONAL RESPONSE TO DISASTERS | | | |
|--|---|--------------------------------|--|
| Level | Description | Extent of Regional Involvement | Examples |
| I | Local incidents within a Participating State are dealt with in the regular operating mode of the emergency services. The local national focal point is required to submit, on a timely basis, information on the emergency event for the purposes of consolidating regional disaster records. | No regional response required | Conway Fire [June 2004] |
| II | Disasters taking place at the national level which does not overwhelm the socio-economic structure or capacity to respond within the affected state. In such cases, the primary assistance at the regional level will be limited to providing technical expertise to National Disaster Organizations or facilitating their access to specific resources which may be required due to the particular disaster event. The whole operation is still managed by the national disaster focal point. | Limited or specialized | Tropical Storm Debby [September 1994] Gros Piton Fire [2002] |
| III | Disasters which overwhelm the capacity of the affected state(s) to respond. In such instances the Regional Response Mechanism is activated. This includes the activation of the Caribbean Disaster Relief Unit (CDRU) which is the operational arm of the Regional Response Mechanism. The CDRU comprises representatives from the military forces within CARICOM and its main responsibility is logistical support for the receipt and dispatch of relief supplies. | Full activation | Hurricane Ivan [September 2004] Saint Lucia Earthquake [January 2010] |

Appendix 2 – Situation Report

Based on *Belize National Hazard Management Plan - Structural Fire Response Plan*

| | |
|--|-------------------------------------|
| SITUATION REPORT | [use additional paper where needed] |
| 1. DATE: | TIME: |
| 2. EVENT: | |
| 3. DEATHS.....INJURIES..... | MISSING..... |
| 4. RESPONSE ACTIONS TAKEN: | |
| (Since last report) | |
| 5. PERSONNEL, EQUIPMENT DEPLOYED: | |
| 6. POPULATION THEATENED: | |
| 7. THREAT OF HAZARDOUS MATERIALS IF ANY: | |
| 8. NEED FOR EVACUATION | (Y) (N) |
| 9. APPROXIMATE NO. OF PERSONS: | |
| 10. SPECIAL POPULATION NEEDS: | |
| 11. ADDITIONAL RESOURCES NEEDED IN PRIORITY ORDER: | |
| 12. COMMENTS on need for activating NEOC | |
| SGD..... | DATE..... TIME..... |

Appendix 3 – Check List for Non-structural Components for Earthquakes

Source Document: Health Services Facilities in the Eastern Caribbean Terms of Reference for Consultants and Standards (with particular reference to Natural Hazards) - July 2000 by Tony Gibbs, Consulting Engineers Partnership Ltd for the Pan American Health Organization under the Disaster Prevention, Mitigation and Preparedness Programme of the European Community Humanitarian Office.

This constitutes of a list of items and issues to be considered in designing the non-structural components of health-care facilities to counteract the effects of earthquakes. Check lists are valuable as *aides-mémoire* for the exercise. For any particular project all of the items may not be relevant, but excluding items from a comprehensive list is always easier than adding relevant items to a short list.

1 Electricity

1.1 Generator

1.1.1 Anchorage of the emergency generator

1.2 Batteries

1.2.1 Attachment of the batteries to the battery rack

1.2.2 Cross-bracing the rack in both directions

1.2.3 Battery rack bolted securely to a concrete pad

1.3 Diesel Fuel Tank

1.3.1 Attachment of the tank to the supports

1.3.2 Cross-bracing the tank supports in both directions

1.3.3 Bracing attached with anchor bolts to a concrete pad

1.4 Fuel Lines and Other Pipes

1.4.1 Lines and pipes attached with flexible connections

1.4.2 Able to accommodate relative movement across joints

1.5 Transformers, Controls, Switchgear

1.5.1 Items properly attached to the floor or wall

1.6 Bus Ducts and Cables

1.6.1 Able to distort at their connections to equipment without rupture

1.6.2 Able to accommodate relative movement across joints

1.6.3 Laterally braced

2 Fire Fighting

2.1 Smoke Detectors and Alarms

2.1.1 Properly mounted

2.1.2 Control system and fire doors securely anchored

2.2 Fire Extinguishers and Hose-reel Cabinets

2.2.1 Cabinets securely mounted

2.2.2 Extinguishers secured with quick-release straps

2.3 Emergency Water Tank

2.3.1 Securely anchored to its supports

2.3.2 Supports braced in both directions

2.3.3 Supports or braces anchored to a concrete foundation

3 Propane Tanks

3.1 The Tank

3.1.1 Securely anchored to its supports

3.1.2 Supports braced in both directions

3.1.3 Supports or braces anchored to a concrete foundation

3.2 Shut-off Valve

- 3.2.1 System with an automatic, earthquake-triggered, shut-off valve
- 3.2.2 If manual, provided with a wrench stored close by

3.3 Supply Pipes

- 3.3.1 Able to accommodate relative movement across joints and at the tank
- 3.3.2 Laterally braced

4 Plumbing

4.1 Water Heaters and Boilers

- 4.1.1 Securely anchored to the floor or wall
- 4.1.2 Gas line with a flexible connection to the heater or boiler to accommodate movement

4.2 Pumps

- 4.2.1 Anchored or mounted on vibration isolation springs with seismic lateral restraints

4.3 Hot and Cold-water Pipes and Wastewater Pipes

- 4.3.1 Pipes laterally braced at reasonable intervals
- 4.3.2 Flexible connections to boilers and tanks
- 4.3.3 Able to accommodate movement across joints
- 4.3.4 Pipe penetrations through walls large enough for seismic movement
- 4.3.5 Free of asbestos insulation (which can be broken in an earthquake)

4.4 Solar Panels

- 4.4.1 Securely anchored to the roof

5 Elevators

5.1 Cab

- 5.1.1 Properly attached to the guide rails
- 5.1.2 Alarm system for emergencies

5.2 Cables, Counterweights, Rails

- 5.2.1 Cables protected against misalignment during an earthquake
- 5.2.2 Counterweights properly attached to guide rails
- 5.2.3 Guide rails properly attached to the building structure

5.3 Motors and Control Cabinets

- 5.3.1 Anchored

6 Air Conditioning

6.1 Chillers, Fans, Blowers, Filters, Air Compressors

- 6.1.1 Anchored, or mounted on vibration isolation springs with seismic lateral restraints

6.2 Wall-mounted Units

- 6.2.1 Securely mounted

6.3 Ducts

- 6.3.1 Laterally braced

- 6.3.2 Able to accommodate movement at locations where they cross separation joints
- 6.4 Diffusers
 - 6.4.1 Grills anchored to the ducts or to the ceiling grid or to the wall
 - 6.4.2 Hanging diffusers adequately supported
- 7 Non-structural Walls and Partitions**
 - 7.1 Concrete Block, Brick, Clay Block
 - 7.1.1 Reinforced vertically and/or horizontally
 - 7.1.2 Detailed to allow sliding at the top and movement at the sides
 - 7.1.3 Restrained at the top and the sides against falling
 - 7.2 Stud-wall and other Lightweight Walls
 - 7.2.1 Partial-height partitions braced at their top edges
 - 7.2.2 If they support shelving or cabinets, securely attached to the structure of the building
- 8 Ceilings and Lights**
 - 8.1 Ceilings
 - 8.1.1 Suspended ceilings with diagonal bracing wires
 - 8.1.2 Plaster ceilings with the wire mesh or wood lath securely attached to the structure above
 - 8.2 Lighting
 - 8.2.1 Light fixtures (*e.g.* lay-in fluorescent fixtures) with supports independent of the ceiling grid

- 8.2.2 Pendant fixtures with safety restraints (*eg* cables) to limit sway
- 8.2.3 Emergency lights mounted to prevent them falling off shelf supports

9 Doors and Windows

9.1 Doors

- 9.1.1 If exit doors are heavy metal fire doors that might jam in an earthquake, provision of a crowbar or sledge hammer readily available to facilitate emergency opening
- 9.1.2 Automatic doors with manual overrides
- 9.1.3 Directions in which the doors swing

9.2 Windows

- 9.2.1 Glazing designed to accommodate lateral movement
- 9.2.2 Large windows, door transoms and skylights with safety glass

10 Appendages and Sundries

10.1 Parapets, Veneer and Decoration

- 10.1.1 Parapets reinforced and braced
- 10.1.2 Veneers and decorative elements with positive anchorage to the building

10.2 Fences and Garden Walls

- 10.2.1 Designed to resist lateral forces

- 10.2.2 Masonry walls reinforced vertically and rigidly fixed to their bases
- 10.3 Signs and Sculptures
 - 10.3.1 Signs adequately anchored
 - 10.3.2 Heavy and/or tall sculptures anchored to prevent overturning
- 10.4 Clay and Concrete Roof Tiles
 - 10.4.1 Tiles secured to the roof with individual fixings for each tile

11 Movable Equipment

- 11.1 Communications
 - 11.1.1 Radio equipment restrained from sliding off shelves
 - 11.1.2 Telephones placed away from edges of desks and counters
 - 11.1.3 Elevated loud speakers and CCTV anchored to the structure
- 11.2 Computers
 - 11.2.1 Vital computer information backed up regularly and stored off site
 - 11.2.2 Heavy computer equipment of significant height relative to width anchored or braced
 - 11.2.3 Desktop items prevented from sliding off tables
 - 11.2.4 Access floors braced diagonally or with seismically-certified pedestals
- 11.3 Storage of Records and Supplies
 - 11.3.1 Shelving units anchored to walls
 - 11.3.2 Shelves fitted with edge restraints or cords to prevent items from falling

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- 11.3.3 Heavier items located on the lower shelves
 - 11.3.4 Filing cabinet drawers latched securely
 - 11.3.5 Heavily-loaded racks braced in both directions
 - 11.3.6 Fragile or valuable items restrained from tipping over
 - 11.3.7 Chemical supplies secured or stored in "egg crate" containers
- 11.4 Hazardous Items
- 11.4.1 Gas cylinders tightly secured with chains at top and bottom (or otherwise) and with chains anchored to walls
 - 11.4.2 Chemicals stored in accordance with manufacturers recommendations
 - 11.4.3 Cabinets for hazardous materials given special attention with respect to anchoring
- 11.5 Furniture
- 11.5.1 Heavy potted plants restrained from falling or located away from beds
 - 11.5.2 Beds and tables and equipment with wheels provided with locks or other restraints to prevent them rolling unintentionally