



World Bank/OECS Emergency Recovery and Disaster Management Project

Government of Saint Lucia

Volcanic Eruption Response Plan

Document of the Saint Lucia National Emergency Management Plan

Approved 498/2009 (2 August, 2009)



Table of Contents

FOREWARD	5
PART I - GENERAL INFORMATION.....	6
1.- NAME OF THE PLAN.....	6
2.- NUMBER AND DATE OF REVISION.....	6
3.- ACRONYMS /ABBREVIATIONS	7
4.- DEFINITIONS/GLOSSARY OF TERMS.....	9
5.- INTRODUCTION.....	9
6.- OBJECTIVES.....	11
6.1. <i>General</i>	11
6.2. <i>Specific</i>	11
7.- LEGAL FRAMEWORK	12
7.1.- <i>Disaster Committees</i>	12
7.2. <i>Revision of the Plan</i>	12
7.3 <i>Contents of the Plan</i>	12
7.4. <i>Emergency Powers</i>	13
8.- POLICIES	13
ACTIVATING THE NATIONAL RESPONSE MECHANISM.....	14
ACTIVATING THE REGIONAL RESPONSE MECHANISM.....	14
9.- ORGANISATIONS INVOLVED IN THE PLAN.....	15
9.1. <i>NEMO</i>	15
9.2. <i>National Disaster Committees</i>	15
9.3. <i>District Disaster Committees</i>	16
9.4.- <i>Seismic Research Unit, University of the West Indies</i>	16
9.5. <i>Emergency Operations Centres</i>	18
9.6. <i>National Emergency Operations Centre (NEOC)</i>	18
9.7 <i>Sectoral EOCs</i>	20
9.8. <i>Private Sector Emergency Operations Centre (PEOC)</i>	20
9.9. <i>International Emergency Operations Centre (IEOC)</i>	21
9.10 <i>Crisis Management Centre (Ministry of Tourism)</i>	21
10.- RESPONSIBILITIES OF THE ORGANISATIONS	22
10.1.- <i>Responsibilities of NEMO's Director</i>	22
10.2.- <i>Responsibilities of NEMO's Deputy Director</i>	23
10.3.- <i>Responsibilities of the Response Organisations</i>	23
11.- ORGANISATION/STRUCTURE OF THE RESPONSE.....	24
11.1.- <i>Warning and Phased Response</i>	24
11.2.- <i>Volcanic Eruption Meetings</i>	26
11.3.- <i>Structure of the Response</i>	27
12.- RELATION WITH OTHER PLANS	30
12.1. <i>National Plans</i>	30
12.2. <i>Regional and International Plans</i>	30
12.3. <i>Local Plans/Procedures</i>	31
12.4. <i>Plans from other Countries</i>	31
13.- PREPAREDNESS ACTIVITIES FOR THE RESPONSE.....	32
13.1.- <i>Evacuation</i>	32
13.2.- <i>Public Awareness and Education</i>	32
13.2.- <i>Evacuation Simulation Exercises</i>	33
13.3.- <i>Evacuation Plans per Hazard Zone</i>	34
PART II - DISASTER SCENARIOS	35
14.- HAZARD DESCRIPTION.....	35
14.1.- <i>Volcanic Centres</i>	35
14.2.- <i>Types of Eruptions</i>	36
14.3.- <i>Volcano Monitoring</i>	37

15.- VOLCANIC ACTIVITY IN SAINT LUCIA.....	39
15.1.- <i>Historic Volcanic Activity</i>	39
15.2.- <i>Future Volcanic Activity</i>	39
16.- DISASTER SCENARIOS.....	40
16.1.- <i>Four Disaster Scenarios</i>	40
17.- HAZARD ZONES	43
17.1.- <i>Four Hazard Zones</i>	43
18.- CONCLUSIONS AND RECOMMENDATIONS FROM PART II.	45
PART III - EMERGENCY RESPONSE AND RELIEF	46
19.- EMERGENCY RESPONSE AND RECOVERY ACTIVITIES	46
19.1. <i>Relation Between Hazard's Effects and Response/Recovery Activities</i>	46
19.2. <i>Response/Recovery Activities</i>	46
20.- EMERGENCY RESPONSIBILITIES ASSIGNED TO THE ORGANISATIONS INVOLVED IN THE PLAN.....	51
21.- INITIAL AERIAL DAMAGE ASSESSMENT.....	52
22.- EMERGENCY PROCEDURES	53
PART IV - THE PLANNING PROCESS	55
23.-REVISION AND UPDATING OF THE VOLCANIC ERUPTION RESPONSE PLAN	55
23.1 <i>The Planning Process</i>	55
23.2. <i>Organisations Responsible for Revising the Plan</i>	56
23.3. <i>Revision of the Plan and its Procedures</i>	57
23.4. <i>Responsibilities of the Planning Organisations</i>	58
24.- DISSEMINATION OF THE PLAN	58
25.- TRAINING.....	59
26.- SIMULATION EXERCISES	60
27.- RECORD OF REAL EVENTS	62
PART V - EMERGENCY PROCEDURES	63
28.- EMERGENCY PROCEDURES	63
Emergency Procedure VEP-001. <i>Warning</i>	64
Emergency Procedure VEP-050. <i>Notification</i>	66
Emergency Procedure VEP-100 <i>Emergency Operations Centre (National)</i>	70
Emergency Procedure VEP-150 <i>Telecommunications</i>	82
Emergency Procedure VEP-200 <i>Transportation</i>	86
Emergency Procedure VEP-250 <i>Evacuation</i>	91
Emergency Procedure VEP-350 <i>Shelter Management</i>	94
Emergency Procedure VEP-400 <i>Land Search and Rescue</i>	99
Emergency Procedure VEP-401 <i>Maritime Search and Rescue</i>	102
Emergency Procedure VEP-450 <i>Security</i>	105
Emergency Procedure VEP-500 <i>Medical Attention</i>	108
Emergency Procedure VEP-550 <i>Environmental Health</i>	112
Emergency Procedure VEP-600 <i>Damage Assessment and Needs Analysis</i>	117
Emergency Procedure VEP-650 <i>External Assistance</i>	121
Emergency Procedure VEP-700 <i>Supply Management</i>	126
Emergency Procedure VEP-750 <i>Public Information</i>	131
Emergency Procedure VEP-800 <i>Protection and Rehabilitation of Infrastructure</i>	135
Emergency Procedure VEP-850 <i>Environmental Protection and Rehabilitation</i>	139
Emergency Procedure VEP-900 <i>Reconstruction</i>	142
Emergency Procedure VEP-950 <i>District Disaster Committee General Procedure (Volcanic Eruption)</i>	145
PART VI - ATTACHMENTS AND APPENDICES.....	149
APPENDIX 1: VOLCANIC ASSESSMENT	149
APPENDIX 2: REPORTS.....	149
APPENDIX 3: EVACUATION PLANS.....	149
APPENDIX 4: FORMAT FOR NOTIFICATION.....	150

FOREWARD

No volcanic eruption plan can be written without a volcanic hazard assessment.

In September 2002, the Seismic Research Unit of the University of the West Indies prepared the document “Volcanic Hazard Assessment for Saint Lucia, Lesser Antilles”. The document includes the description of volcanic centres in Saint Lucia, historic eruptions, monitoring, future activity and eruption scenarios. This information is fundamental for the understanding of the volcanic hazard and the warning and response that have to be given in the case of a threat or an eruption in the island. Due to its importance, the SRU document has been included as an appendix to the National Volcanic Eruption Plan (Appendix 1 to this plan). It is recommended, then, that the SRU document be read in its entirety BEFORE reading this Plan. Nevertheless, some paragraphs and figures from the document have been included in the plan.

One of the most important issues that has to be addressed for the adequate execution of this plan (and of any other volcanic eruption response plan) is to involve the population in the activities of the plan by:

- 1.- The designing and implementation of a permanent public awareness campaign to make the population aware of volcanic risks and the measures that would have to be taken if the threat of an eruption is present;
- 2.- Teaching volcanic hazards as part of the regular school curriculum to increase awareness, and
- 3.- Designing, organising, executing and evaluating evacuation simulation exercises for the areas at risk involving the population in the whole process. The frequency (annual, biennial or other) of the evacuation simulation exercises has to be determined by the NEMO:

Thus, the population would understand what the volcanic risks are and would know what their role is during a volcanic eruption threat, particularly in the case of an evacuation. Thus, the population would give an immediate and adequate response in the case of a real event by collaborating with the authorities in the evacuation when it is demanded by the situation.

If the previous three conditions are not fulfilled, this and any other volcanic eruption response plan would be ineffective.

It must be borne in mind, and in the mind of the people, that an evacuation due to a volcanic eruption threat is different than an evacuation due to a hurricane/flood threat: waters can flood for one day or two and then recede; the effects of lava domes and pyroclastic activity remain for decades: if people refuse to evacuate during a magmatic volcanic eruption threat, the chances of dying if the human body becomes exposed to lava or pyroclastic flow (100-600 °C) are 100%.

PART I - GENERAL INFORMATION

1.- Name of the Plan

The name of this emergency response plan is ‘The Saint Lucia National Volcanic Eruption Response Plan’

In this document, it will be referred to as ‘the Volcanic Eruption Response Plan’, ‘the Volcanic Eruption Plan’, ‘the Plan’ or by its acronyms:

- ✓ SLU/NEMP/VEP, or
- ✓ VEP.

The Saint Lucia National Volcanic Eruption Response Plan is also subsection 03 of section 03 (National Emergency Plans) of the Saint Lucia National Emergency Management Plan. [SLU/NEMP-03-03]

The Saint Lucia National Emergency Management Plan will be referred here to as ‘the National Plan’ or by its acronym SLU/NEMP

All sections of the National Emergency Management Plan (of which the Volcanic Eruption Response Plan is part) were revised, within the World Bank/OECS project, by the Emergency Planning and Mitigation Advisor of NEMO, Mr. Arturo Lopez-Portillo, with the stakeholders and under the co-ordination of the Director of NEMO; Section 04 (Subsections 01, 02, 03 and 04) and Subsections 04 and 05 of Section 05 were designed by the Disaster Business Advisor, Mr. William Gowen. (See Table 1.1. below)

Acknowledgement is made of the revision and comments given by the Chairpersons of the National Disaster Committees and the rest of the members of the NEMO. This plan is the result of their valuable comments and contribution.

The plan was also circulated to the SRU and to CDEMA for comments. Thanks are given to them for their contribution; particularly to Jan Lindsay, Ph. D. from the SRU for her invaluable comments on this document.

2.- Number and Date of Revision.

The previous National Volcanic Eruption Plan, included in the Saint Lucia National Disaster Plan from 1996, has changed completely; under the World Bank/OECS Emergency Recovery and Disaster Management Project, an Emergency Planning and Mitigation Advisor, was hired to revise and produce a new plan under the co-ordination of NEMO.

All the stakeholders revised the Volcanic Eruption Response Plan and its procedures: Chairpersons of the National Disaster Committees, key Governmental Officers involved in the plan and procedures, and the Seismic Research Unit of the University of the West Indies.

The version presented here is Version Number 1 from December 11th, 2002 (or the 2002 version) produced after the last revision in a NEMAC meeting chaired by Dr. Kenny Anthony, Prime Minister of Saint Lucia, that had the participation of the Chairpersons of the National Disaster Committees and representatives from the Police and Fire Service.

So, the version presented here is a totally new version of the Volcanic Eruption Response Plan; as such, it is considered to be Version number 1 for the year 2002.

Future versions have to be prepared, according to the Disaster Preparedness and Response Act, every year as mentioned in Part III 8 (1) of the Act.

3.- Acronyms/Abbreviations

ADRA	The Adventist Disaster Relief Agency.
CARICOM	The Caribbean Community
Caritas	Caritas Internationalis. Catholic Relief Organisation.
CDB	Caribbean Development Bank.
CDEMA	Caribbean Disaster Emergency Response Agency
CDRU	CARICOM Disaster Relief Unit
CEHI	Caribbean Environmental Health Institute
CIDA	The Canadian International Development Agency
C&W	Cable and Wireless.
CMU	Hospitality Industry Crisis Management Unit
CMC	Hospitality Industry Crisis Management Centre
CMT	Hospitality Industry Crisis Management Committee
CPC	Caribbean Programme Co-ordination Office (PAHO) in Barbados.
DANA	Damage Assessment and Needs Analysis
DFID	Department for International Development (UK)
DPRA	Disaster Preparedness and Response Act No. 13 of 2000. (Saint Lucia.)
ECDG	Eastern Caribbean Donor Group
ECHO	European Community Humanitarian Office
EOC	Emergency Operations Centre
EP/ SLNEM-EP	Saint Lucia National Earthquake Response Plan
FEMA	Federal Emergency Management Agency (US)
FUNVISIS	Fundación Venezolana de Investigaciones Sismológicas
GIS	Geographical Information System
GOSL	Government of Saint Lucia
GPS	Global Positioning System
HAZMAT	Hazardous Materials
HF	High Frequency
IADB	Inter American Development Bank
ICS	Incident Command System

IEOC	International Emergency Operations Centre (for and in Saint Lucia)
IMO	International Maritime Organisation
IPGP	Institut de Physique du Globe de Paris. (Martinique)
LUCELEC	Saint Lucia Electricity Services LTD.
MSF	Médecins sans Frontières (Doctors without borders)
MOH	Ministry of Health.
NDO/NDMO	National Disaster Management Organisation
NDMP	Saint Lucia National Disaster Management Plan (1996)
NEMAC	National Emergency Management Advisory Committee
NEMO	National Emergency Management Office
NEOC	National Emergency Operations Centre
NHMC	National Hazard Mitigation Council
OCHA	UN Office for the Co-ordination of Humanitarian Affairs
OECS	Organisation of Eastern Caribbean States
OFDA	US Office of Foreign Disaster Assistance
OPAC	Oil Pollution Action Committee
OSC	On Scene Commander
Oxfam	Oxfam International. Confederation of NGO's for Relief.
PAHO	The Pan American Health Organisation
PED	Emergency Preparedness and Disaster Relief Programme (PAHO)
PM	The Honourable Prime Minister of Saint Lucia.
PS	Permanent Secretary.
PEOC	Private Sector Emergency Operations Centre (in Saint Lucia).
RCI	Radio Caribbean International
REMPEITC	The Regional Marine Pollution Emergency Information and Training Centre Wider Caribbean. International Maritime Organisation.
RSL	Radio Saint Lucia
RSLPF	Royal Saint Lucia Police Force
RSS	Regional Security System
RSTS	Relief Supplies Tracking System
SITREP	Situation Reports
SLASPA	Saint Lucia Air and Sea Ports Authority
SLBGA	Saint Lucia Banana Growers Association
SLHTA	Saint Lucia Hotel and Tourism Association
SLTB	Saint Lucia Tourist Board
SLU-GIS	Government Information Service
SLUNEMP	Saint Lucia National Emergency Plan
SOP	Standard Operating Procedure
Southcom	The United States Army Southern Command
SRU	Seismic Research Unit
SUMA	Supply Management (software)
UDO	Universidad de Oriente (Venezuela)
UN	The United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USGS	United States Geological Survey

UWI	University of the West Indies
VEP	Volcanic Eruption Plan
WASCO	Water and Sewerage Company (Saint Lucia)
WB	The World Bank
WFP	World Food Programme
WIBDECO	Windward Islands Banana Development and Exporting Company Ltd.

4.- Definitions/Glossary of Terms.

Definitions are included in pages 39 to 45 of Appendix 1 at the end of this Plan. : “Volcanic Hazard Assessment for Saint Lucia, Lesser Antilles” by Jan Lindsay, Jerome David, John Shepherd and Judith Ephraim. Seismic Research Unit (SRU). The University of the West Indies. St. Augustine, Trinidad and Tobago. September 2002.

5.- Introduction

As mentioned in Section 2 of this Plan, *Number and Date of Revision*, the VEP is a totally new plan. It was designed within the World Bank/OECS Emergency Recovery and Disaster Management Project. The design of the Plan was based on the document ‘Guidelines for the Revision of Emergency/Recovery Plans. November, 2001’ also designed by the Emergency Planning and Mitigation Advisor of the project. These guidelines consider several sections that would make any emergency plan a complete plan by taking into consideration:

- ✓ The need for a specific plan for a specific hazard
- ✓ The need to have a written emergency plan
- ✓ The need to establish a permanent planning process.
- ✓ The need to have in reality the resources mentioned in the written plan.

The spirit of the Plan is to have a permanent planning process for the response in the case of a volcanic eruption 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 an earthquake) together to analyse and update the plans regularly.

Two elements will be helpful to maintain the planning process in Saint Lucia: NEMO and the DPRA; the first one through the co-ordination of the planning process and the second one by establishing the need to revise and present the plan to the NEMAC and the PM on a yearly basis. This ensures that the plan and its procedures will be updated at least once a year and, as it will be stated later in this plan, at least after every simulation exercise and after every real event caused by a volcanic eruption.

The Volcanic Eruption Response 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.

The structure of the Plan, by being based on the above-mentioned guidelines, intends to be the same as that for other plans (hurricanes, volcanic eruptions) within the NEMP and, also, a first step to homologate emergency plans not only within the country, but also at the Regional and International levels.

The Plan comprises specific emergency procedures. Each procedure corresponds to a specific generic emergency/response activity, and its responsibility is assigned to one, and only to one specific organisation to ensure, thus, that there are no gaps or overlapping in the responsibilities to be executed during an emergency or in the case of a disaster.

The emergency procedures of this plan have been written also according to guidelines designed by the Emergency Planning and Mitigation Advisor: "Writing Standard Operating Procedures (SOPs) Version 4, December 1st, 2001" based on a previous document: 'Writing Standard Operating Procedures' designed by PAHO's Emergency Preparedness and Disaster Relief Programme (PED) in the Caribbean Co-ordination Office in Barbados (CPC) in 2000. Using these guidelines for writing procedures will ensure, again, that procedures, as well as plans, be similar in structure (contents, components, sequence of the steps, etc.) as a very important factor to homologate emergency procedures in Saint Lucia and in the Region.

The emergency procedures have been assigned different numbers according to the specific emergency/recovery activity they are written for.

Another advantage is that by writing procedures per specific emergency/recovery function, some of them will be useful for other hazard plans within the National Plan that demand the same function; for instance, a Supply Management Emergency Procedure that could be exactly the same (or at least very similar) for earthquakes and also for hurricanes, and a Public Information Emergency Procedure that could be the same for two or more specific hazards.

The Plan and its procedures are easily updated. Every Section of the Plan and every emergency procedure of the plan can be updated separately; this means, it is not necessary to change every single section and every single procedure in the plan at the same time; they have to be revised once a year, yes, but maybe not all of them would require changes.

In the case of simulation exercises that test only one or two procedures, these can be updated as well after evaluating the exercise without necessarily updating the entire plan and the rest of the procedures.

In conclusion, the Volcanic Eruption Response Plan intends to be a comprehensive plan and an easy plan to read, revise, test, execute and update.

6.- Objectives.

6.1. General.

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

6.2. Specific.

- To describe the possible characteristics of volcanic eruptions that could affect Saint Lucia
- To describe the possible effects the impact of volcanic eruptions could cause in Saint Lucia
- To establish the need for an emergency response, an emergency plan and a permanent planning process against volcanic eruptions in Saint Lucia.
- 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 a volcanic eruption.
- To assign responsibilities to governmental, private and social organisations in Saint Lucia for the planning, testing, execution and evaluation of the emergency activities identified.
- To determine the sequence of the emergency/ recovery activities that will be executed during a threat and impact of a volcanic eruption in order to optimise resources and increase the effectiveness of the response.
- To establish a permanent planning process in Saint Lucia against volcanic eruptions, 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.
- To have a planning tool that guides the training of personnel and testing of the Plan according to specific emergency/recovery activities considered.
- To have the planning tool to keep records and the evaluations of evacuation simulation exercises in Saint Lucia and to include the results, recommendations and lessons learned in the Plan itself.
- To promote the establishment of a permanent public awareness campaign that allows the population to know the volcanic risks and the measures they have to take in the case of the threat of a volcanic eruption.

7.- Legal Framework.

Several sections from the Disaster Preparedness and Response Act, #13 of 2000 as follows:

7.1.- Disaster Committees.

For the creation of committees and its activation during threatened disaster alerts:

Part III, 6 (6) : “ The Director shall in consultation with the National Advisory Committee establish other committees and sub-committees charged with particular responsibilities, whether defined by geographical area or otherwise, in relation to the response to emergencies and disasters in Saint Lucia, Which other committees and sub-committees shall be available to be convened whenever a threatened disaster alert arises or a disaster strikes”

7.2. Revision of the Plan

For the revision of the VEP as part of the National Plan:

Part III, 8 (1): “ The Director shall prepare annually for the approval of the Prime Minister, the National Disaster Response Plan, comprising the statement of contingency arrangements under the co-ordination of the Director for responding to the threat or event and aftermath of a disaster in Saint Lucia whether or not the threat or the disaster is such as to prompt the declaration of a disaster emergency.

Part III, 8, (3): “The Director of NEMO shall consult the National Emergency Management Advisory Committee”

7.3 Contents of the Plan

For some of the contents of the National Plan and some of the emergency procedures that have to be designed:

The DPRA mentions several emergency procedures that are included in the table below; some are applicable for volcanic eruptions and others for other hazards.

Part III, 8 (2) (a) to (o) as follows:

Article from Section 2 of the DPRA	Table 7.1 Key activities that have to be included in the national plan as emergency procedures.
a	General. For public officers, statutory bodies and local government units to perform functions related to mitigation, preparedness, response and recovery
b	Co-ordination. Co-ordinating the National Plan and the plans from those mentioned in (a) above.

c	Warning. Alert. Notification.
d	Inventories of services, systems and supplies.
e	EOC. Mobilising services and systems including provision of manpower for EOC and for the families of those providing manpower.
f	Protection and restoration of communications. Nationally and internationally.
g	Information. Public and those mentioned in (a) above.
h	Supply management. Food, water, clothing and medical supplies.
i	Fire. Epidemics.
Article from Section 2 of the DPRA	Table 7.1 Cont. Key activities that have to be included in the national plan as emergency procedures.
j	Shelter Management.
k	Co-operation with international organisations and governments.
l	Supply Management. Accepting and facilitating the distribution of volunteer services for relief supply.
m	Evacuation. Evacuation of all the residents of any area ... desirable in the event of a disaster emergency.
n	Transportation. Communications. Supply Management. Requisitioning private property...And for assessing and paying compensation.
o	Security. Protection of life and property from looting and riotous behaviour.

7.4. Emergency Powers

For Emergency Powers:

- 1.- The Constitution. Article 17.
- 2.- The Emergency Powers Act, No. 5 of 1995.

8.- Policies

Policies that are directly related to the Plan are included in the correspondent section of the SLU/NEMP as mentioned in table 1.1 of this Plan.

- ✓ Donations and Importation of Relief Supplies Policy
- ✓ Emergency Shelter Management Policy
- ✓ Emergency Housing Policy
- ✓ Mitigation Policy
- ✓ Travel Policy
- ✓ Mass Fatality Management in Disasters

Of particular importance results the Emergency Housing Policy, which has been revised and updated in the last year and which establishes emergency housing activities after a disastrous situation as that one caused by a volcanic eruption, and to prepare the Government of Saint Lucia for the establishment of an emergency housing programme if it occurs.

Regarding the Donations and Importation of Relief Supplies Policy and the Policy and Guidelines for the Adequate Management and Disposal of Dead Bodies in Disasters, they play an important role in the three National Disaster Plans for natural hazards: Hurricanes, Earthquakes and Volcanic Eruptions. They play a particular important role in specific procedures such as : VEP-200-Transportation, VEP-500-Medical Attention, VEP-650-External Assistance and VEP –700-Supply Management amongst others. Some of the policies mentioned above have to be attached to specific procedures as indicated in the procedures themselves.

ACTIVATING THE NATIONAL RESPONSE MECHANISM

A major situation, which threatens population centres will require that the Government of Saint Lucia activate the National Response Mechanism. This will be coordinated by the National Emergency Operations Centre (NEOC).

The Director NEMO in consultation with the Director of the Seismic Research Unit and the Cabinet Secretary, shall advise the Government on the activation of the Volcanic Response 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.

ACTIVATING THE REGIONAL RESPONSE MECHANISM

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

The decision to advise the CDEMA Coordination 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.

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

The Coordinator 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.

9.- Organisations Involved in the Plan

9.1. NEMO

The National Emergency Management Organisation (NEMO) in Saint Lucia is responsible for having the Nation in a state of preparedness in case of an emergency. Also for responding to the needs of the Nation after a disaster, and co-ordinating the response at local, regional and international levels.

During an event NEMO is part of a larger network that comes into existence to respond to a disaster.

NEMO is responsible for the co-ordination of all response activities before, during and after the case of a change of an Alert Level of volcanic activity. This is done from NEMO headquarters and, if it is activated, from the EOC.

The NEMO comprises several Governmental Organisations responsible for response and recovery activities that do not necessarily chair any Disaster Committee; we will mention here: The Royal Saint Lucia Police Force, the Fire Service and the Saint Lucia Air and Seaports Authority.

In further sections of this plan and in the emergency procedures we will detail the role of all agencies according to the functions they are responsible for within this plan.

9.2. National Disaster Committees.

There are 10 National Disaster Committees in Saint Lucia that belong to NEMO; they are all involved in the planning and response against earthquakes. They are as follows.

1. Transportation Disaster Committee
2. Supply Management Disaster Committee
3. Telecommunications Disaster Committee
4. Damage Assessment and Needs Analysis Disaster Committee
5. Information Disaster Committee
6. Welfare Disaster Committee
7. Emergency Works/Rehabilitation/Reconstruction Disaster Committee

8. Shelter Management Disaster Committee.
9. Oil Pollution Action Committee[OPAC]
10. Crisis Management Disaster Committee

9.3. District Disaster Committees

There are 18 District Disaster Committees as follows:

1. Local Disaster Committee Gros Islet
2. Local Disaster Committee Castries North
3. Local Disaster Committee Castries North East/Barbonneau
4. Local Disaster Committee Castries South East
5. Local Disaster Committee Castries East
6. Local Disaster Committee Castries Central
7. Local Disaster Committee Castries South *
8. Local Disaster Committee Anse La Raye
9. Local Disaster Committee Canaries
10. Local Disaster Committee Soufriere
11. Local Disaster Committee Choiseul
12. Local Disaster Committee Laborie
13. Local Disaster Committee Vieux Fort North
14. Local Disaster Committee Vieux Fort South
15. Local Disaster Committee Micoud North
16. Local Disaster Committee Micoud South
17. Local Disaster Committee Dennery North
18. Local Disaster Committee Dennery South

* Not activated as of December 11th, 2002.

All Committees, their functions and their members can go through changes depending on the needs determined in the permanent planning process. Chairpersons of committees must establish permanent contact with all the members of their Committees in order to define and assign responsibilities, before, during and after disasters.

9.4.- Seismic Research Unit. University of the West Indies.

From the SRU website, we have that:

- o The Seismic Research Unit of the University of the West Indies is responsible for monitoring earthquakes and volcanic activity in the Commonwealth Eastern Caribbean countries.

- o It is funded by the governments of Trinidad and Tobago, Grenada, St. Vincent and the Grenadines, Barbados, Saint Lucia, Dominica, Montserrat, St. Kitts-Nevis, Antigua-Barbuda. and the British Virgin Islands
- o The unit maintains a volcanic surveillance and warning system in these countries, conducts research on the distribution and frequency of earthquakes in the Eastern Caribbean and provides advice on earthquake and volcano related issues to governments of the contributing countries. Additional volcanic monitoring is carried out on contract in the Netherlands Antilles islands of Saba and Sint Eustatius (Statia).
- o External funding is currently provided by a number of external agencies and private companies including The United States Agency for International Development (USAID/OFDA), the British Department for International Development (DFID), the Caribbean Development Bank (CDB) the Atlantic Natural Gas Company and British Gas.
- o Close links are maintained with other similar organisations in the region such as the Institut de Physique du Globe de Paris (IPGP) which is responsible for volcanic and earthquake monitoring in the islands of Martinique and Guadeloupe, the Fundación Venezolana de Investigaciones Sismológicas (FUNVISIS) and the Universidad de Oriente (UDO) which monitor earthquakes in Venezuela.
- o The seismograph networks operated by the Unit were modified in 1998-2000. From 1977 to 1999 at least one short-period seismograph station in each of the volcanic islands transmitted a continuous signal to Unit headquarters in St. Augustine Trinidad where the signals were simultaneously displayed visually on drum recorders and recorded digitally on PC's.
- o The SRU has now implemented a system in which each of the important volcanic islands has a network of short-period stations recording on a local PC. The local PC passes on triggered event data packages to Trinidad via the internet and can also be interrogated at need through the ordinary telephone system. Three-component broadband instruments are located at strategic points throughout the region.
- o In addition to providing services in volcanology and seismology to the governments of the contributing countries, the unit also provides consultancy services in various aspects of Applied Seismology, Engineering Geophysics and Geology to both local and international insurance Companies and Civil Engineering establishments.

The SRU will provide the NEMO with information about the volcanic activity (using the Volcanic Alert System). In the case of the threat of a volcanic eruption, the SRU will contact NEMO and provide information about its possible occurrence, characteristics and effects.

The Government of Saint Lucia recognises the SRU as the official agency regarding volcanic eruptions' research issues; the Government of Saint Lucia, however, will welcome all technical assistance from other agencies that will, however, be required to liaise with the SRU during a crisis.

9.5. Emergency Operations Centres

During an emergency NEMO transforms into the National Emergency Operations Centre (NEOC). The EOC is the centre from which all commands are issued and to which all demands are made. It is the seat of control for the Prime Minister as Chairman of the EOC and as leader of the State. All heads of essential services locate at the EOC.

Every EOC has to determine beforehand:

- 1.- Its location
- 2.- Its members
- 3.- Its material resources (communications, information, etc)
- 4.- What organisations it has to be in communication with and by what means.
- 5.- Activities that have to be conducted and co-ordinated from it
- 6.- When it has to be activated
- 7.- When it has to be deactivated.

These points and others have to be included in the EOC emergency procedures. (See EOC Emergency Procedure in Part V of this plan)

9.6. National Emergency Operations Centre (NEOC).

The National Emergency Operations Centre (NEOC) is located in the Red Cross Building in Vigie, Castries. It is activated in the event of a change of an alert level of volcanic activity if the conditions (damage and needs) determine so, and only by the decision of the NEMO.

All the personnel considered in the plan to be in the EOC have to go there and co-ordinate the execution of the response/relief activities they are responsible for.

Two teams are considered to be in the EOC; Team # 1 that must arrive once the EOC is activated, and Team # 2 that arrives 12 hours later to substitute for Team # 1.

The teams are the following:

Team # 1:
Director of NEMO.
Permanent Secretary, External Affairs or nominee.
Chief Medical Officer
Police Commissioner
Chief Fire Officer
The Principal Information Officer
The Permanent Secretary, Ministry of Tourism
Amateur Radio and Citizen Band

Chairpersons of all the Disaster Committees
Red Cross Representative
SLASPA Representative
Stenographer/typist

After 12 hours Team 2 should be in the EOC.

Team # 2:
Cabinet Secretary
Permanent Secretary, Planning
Deputy National Disaster Coordinator
Deputy Permanent Secretary, External Affairs
Medical Officer Health
Deputy Police Commissioner
Deputy Chief Fire Officer
Representative GIS
Representative Ministry of Tourism
Amateur Radio and Citizen Band
Deputy Chairpersons of National Disaster Committees
Red Cross Representative
SLASPA Representative
Stenographer/Typist

Additionally, the following personnel will be in the EOC:

- 4 Policemen provided by the Police Force to provide security
- 1 or 2 (to be decided by Telecommunications Disaster Committee) Amateur Radio Operator provided by the Telecommunications Disaster Committee
- 3 Message Receivers (runners)
- Situation Reporter (s) per sector. Each EOC member (sector) should report every situation they are involved in. This situation considers one reporter per EOC sector.
- 1 Damage Assessment Logger

The last three will normally be volunteers trained by NEMO in their activities during the EOC operations.

No one else should be in the EOC unless approved by the EOC Chairperson. No access by the public or by the Media should be allowed.

It is important to mention that, upon declaration of orange alert, the EOC will have to be activated immediately. However, since the alert level may last for months or years, the Director of NEMO and the members of the NEMO will determine when the EOC must be deactivated or if, once deactivated, it has to be activated again. The same situation will occur with the rest of the EOCs or if a task force is needed.

In the case of a long-term crisis/response, the regular duties of the Director of NEMO remain. So, another chair is needed if the NEOC has to operate for a long time. To name a “Director of Operations” for the NEOC can be a solution, as shown in Montserrat.

9.7 Sectoral EOCs

Ministries or sectors that have to be represented in the National EOC but that at the same time have to co-ordinate several organisations/areas within the ministry/sector need to establish a sectoral EOC that has direct and permanent communication with the National EOC.

This is the case for at least, the Ministry of Health, the Ministry of Works and the Ministry of Tourism.

Those Ministries/ agencies that have to co-ordinate a sectoral EOC from the NEOC must ensure that there is uninterrupted communication between them.

9.8. Private Sector Emergency Operations Centre (PEOC).

A new concept has been introduced in the management of disasters in Saint Lucia: the Private Sector Emergency Operations Centre (PEOC). The inclusion of this concept and the promotion of a closer involvement of the private sector in the planning process were done by Mr. William Gowen, Business Disaster Advisor to NEMO within the World Bank/OECS project.

A simulation exercise was conducted to test this PEOC in March 4th, 2002.

The PEOC considers the following:

- a.- Location: Cable and Wireless (the exercise was there, it is needed to confirm if this would be the location in a real event)
- b.- Chaired by: To be defined
- c.- Participants:
 - LUCELEC (1)
 - WASCO (1)
 - Saint Lucia Air and Seaports Authority (1)
 - Cable and Wireless (1)
 - Fuel Sector (1)
 - Food sector (2)
 - Building material sector (1)
 - Banking sector (1)
 - Tourism Heritage Sites (1)
 - Ministry of Tourism (1)
 - Ministry of Health (1)

Ministry of Works (1)
NEMO (1) (subject to availability of personnel)

9.9. International Emergency Operations Centre (IEOC).

In order to manage all international affairs concerning an emergency or a disaster, and also to act as the emergency organisation all the international agencies and donors have to meet with, particularly for the case of donations and disaster relief, the International EOC will be activated, if needed, in the case of a disaster, as follows:

- a.- Location: Ministry of External Affairs
- b.- Chaired by: Ministry of External Affairs (PS)
- c.- Deputy Chair: To be announced.
- d.- Participants:
Personnel from foreign countries and regional and international organizations already in the country or that arrive to the country after a disaster. UN agencies [UNDP, PAHO, UNICEF, etc.] Other International Organisations: ECHO, OCHA, WFP, MSF, OXFAM; Regional Organisations like the CDEMA and the Eastern Caribbean Donor Group (ECDG) that has members such as: CDEMA, CDB, IADB, PAHO, OFDA, CIDA, DFID, etc., and other organisations: REMPEITC, Southcom, World Bank, etc.

Emergency Procedure VEP- 650 External Assistance, details the role of the Ministry of External Affairs in an emergency/disaster after a volcanic eruption.

9.10 Crisis Management Centre (Ministry of Tourism)

Although in itself it is a Sectoral EOC, it has been considered in the National Plan since 1996.

The composition of the Crisis Management Committee (CMT) is the following:

Coordinator/Chairperson and NEMO liaison	-	Permanent Secretary, Ministry of Tourism.
Head Crisis Management Unit	-	Director of Product Development, Ministry of Tourism.
Damage and Needs Assessment Unit	-	Executive Vice-president. SLTHA
Air and Seaports Information Unit	-	Rep. SLASPA.
Evacuation Unit	-	Rep. St. Lucia Rep. Ground handlers Association & Rep. National Taxi Council.
Public Relations and Communications Unit	-	Deputy Director. SLTB

The Ministry of Tourism has considered, since 1996, in the 'Hospitality Industry Crisis Management Plan', the activation of the Crisis Management Unit, which would act as an EOC for the tourism sector.

For the operations of the CMT during crises, a Hospitality Industry Crisis Management Centre (CMC) has been established at the Meeting Room, Directorate of Product Development, Ministry of Tourism, Sir Stanislaus James Building, 3rd floor, the Waterfront, Castries; telephone numbers: 468 46 04 and 468 46 28.

9.11.- District EOCs

Every district has to establish a District EOC that:

- 1.- Co-ordinates the response at the local level.
- 2.- Has the right personnel in it to coordinate the response
- 3.- Has permanent communication with the NEOC.
- 4.- Has permanent communication with key institutions/organisations/facilities/individuals within the District.

Once the location of each district EOC is defined they should be listed in this section of the Volcanic Eruption Response Plan.

10.- Responsibilities of the Organisations

10.1.- Responsibilities of NEMO's Director.

In order to ensure that the planning process does not stop and that the Plan is 'kept alive' the Director of NEMO, within this plan, is responsible for the following activities.

- 1.- Ensure that all the Disaster Committees meet regularly.
- 2.- Attend the Disaster Committees' meetings, take note of the agreements arrived at and be informed of the accomplishment of any tasks derived from the meetings.
- 3.- Ensure that all the organisations responsible for an emergency/recovery function of this plan revise the plan and the procedures they are responsible for at least once a year.
- 4.- Keep a master copy of the plan and its procedures.
- 5.- Make all changes needed to the plan according to the input provided by the organisations responsible for the emergency procedures.
- 6.- Prepare the yearly version of the plan and ensure that it is presented and approved by the Prime Minister.
- 7.- Keep records of every training course that trained personnel and organisations involved in the plan attend, and keep the information attached to the plan for future reference.
- 8.- Keep records (memoirs) of every simulation exercise that tests resources involved in the plan and keep the information attached to the plan for future reference.

- 9.- Keep records and information of the response to every real event and keep the information and evaluations attached to the plan for future reference.
- 10.- Ensure that the plan and/or its procedures are revised and updated after every simulation exercise and after every real event.
- 11.- Disseminate the plan.
- 12.- Execute the procedures he/she is responsible (primary and secondary) for in the case of a volcanic eruption in Saint Lucia.

10.2.- Responsibilities of NEMO's Deputy Director.

The Deputy Director of NEMO is responsible, within this plan, for:

- 1.- Assisting the Director in all the activities mentioned in Point 10.1 (activities 1-12).
- 2.- In the absence of the Director, conducting all the activities mentioned in Point 10.1 (activities 1-12).

The Deputy Director must be trained and capable of substituting for the Director at all times, not only regarding the planning activities, but also in the execution and co-ordination of the emergency response activities described in the emergency procedures in this Plan.

10.3.- Responsibilities of the Response Organisations.

Responsibilities for the governmental officials are stated in the Law and are the same activities they will have to execute during 'peace times'; *e.g.*, Ministry of Health has to take care of the health of the population before and after disasters, Ministry of Works has to take care of communications, damage of infrastructure and clearing roads before and after disasters. Police is in charge of security before and after disasters. In general, governmental officers have to execute the same activities but under different circumstances (peace and disaster times).

So, for the governmental organisations, the activities written in this plan do not represent additional responsibilities. What is, however, different is that they are done in emergency or disaster times, which means that the demands are more and response is needed sooner than in normal times; therefore, there is a need for planning (and training) for emergencies and disasters. Emergency and disaster management are parts of the overall management process.

Volunteers are organisations and persons who volunteer to be responsible for specific disaster management activities (members of a District Committee, chairpersons of some Disaster Committees, organisations members of Disaster Committees, etc.). Their desire to help their fellow citizens leads them to be part of the disaster management organisations at the national and/or local level that will protect the population and their property during and after the threat or impact of a hazard. Therefore, they become part of the disaster management process and particularly of the emergency planning process and part of the response during emergencies and disasters.

They are not paid for this; they do these activities beside their own personal and private activities and they do not demand anything in return. Their work in disaster management is to be highly commended.

11.- Organisation/Structure of the Response

11.1.- Warning and Phased Response.

The Seismic Research Unit based in Trinidad and Tobago has monitoring equipment to detect characteristic warning signs that precede an eruption. (See Section 14 of this Plan and page 31 of Appendix 1: “*Volcanic Hazard Assessment for Saint Lucia, Lesser Antilles*” by Jan Lindsay, Jerome David, John Shepherd and Judith Ephraim. Seismic Research Unit [SRU]. The University of the West Indies. St. Augustine, Trinidad and Tobago. September 2002.)

Once the warning conditions that precede a volcanic eruption are present and detected by the SRU, the SRU shall contact the NEMO and inform the Director about:

- 1.- The alert level. (green, yellow, orange, red)
- 2.- The conditions that have been detected that precede a volcanic eruption (symptoms)
- 3.- The possible type of eruption (1, 2, 3 or 4)
- 4.- The expected time for the eruption (months, days, hours)
- 5.- The area that is likely to be affected by the eruption (Hazard zones likely to be affected) and that may have to be evacuated.

The warning will be given to NEMO according to the levels from the following table (modified from table 2 of Appendix 1. Page 34.):

Alert Level	Symptoms	Action by scientists (SRU)
GREEN	Volcano is quiescent, seismic and fumarolic (steam vent) activity are at or below the historical level at this volcano. No other unusual activity has been observed.	Normal monitoring
YELLOW	Volcano is restless; seismicity or fumarolic activity or both are above the historical level at this volcano or other unusual activity has been observed (this activity will be specified at the time that the alert level is raised).	Monitoring system will be brought up to full capability. Civil authorities alerted. Communication system tested.

ORANGE	Highly elevated level of seismicity or fumarolic activity or both, or other highly unusual symptoms. Eruption may occur with less than 24 hours -notice.	Monitoring system continuously manned. Regular visual inspection of potential vent areas. Continuous ground deformation and hydrothermal monitoring. Daily assessment reports to civil authorities. Entry to the restricted-access zone will be permitted to scientists after an evaluation on a case-to-case basis.
RED	Eruption is in progress or may occur without further warning.	Measurements as permitted by safety conditions. Civil authorities advised continuously.

Table 11.1. Volcanic Alert Levels.

For volcanic eruptions in neighbouring countries or submarine volcanoes like Kick ‘em Jenny, we will add another Alert level: the blue alert level which will involve a blue level meeting; that is, a volcanic eruption is likely to occur or has occurred in a neighbouring island or at a submarine volcano that may have effects in Saint Lucia. The warning of a blue alert will not be given to the NEMO by the SRU, since the SRU only issues a change in an alert level status to the relevant government (*e.g.*, to the Government of Grenada if the activity is at Kick ‘em Jenny). NEMO will only receive information from the SRU in the form of a Scientific Advisory. The SRU does not have a blue alert level; so it is a decision of the NEMO to declare a blue alert level when there is volcanic activity in a neighbouring island. The ‘blue’ alert given by the NEMO with information from SRU and from the neighbouring country that is having volcanic activity shall include:

- 1.- Information about the conditions that precede a volcanic eruption (symptoms)
- 2.- Location of the volcanic activity.
- 3.- The possible type of eruption
- 4.- The expected time for the eruption (months, days, hours)
- 5.- The expected effects in Saint Lucia due to the volcanic eruption.
- 6.- Suggestions of actions to be taken.

Once the warning has been received, the Director of NEMO shall notify the NEMO members. Notification shall include (See format attached to VEP 050 Notification):

- 1.- The alert level. (blue)
- 2.- Information about the conditions that precede a volcanic eruption (symptoms)
- 3.- Location of the volcanic activity.
- 4.- The possible type of eruption
- 5.- The expected time for the eruption (months, days, hours)
- 6.- The expected effects in Saint Lucia due to the volcanic eruption.
- 7.- Actions to be taken by the NEMO. (Starting with an immediate blue meeting).

So, we would have the Blue Alert Level:

Alert level	Symptoms	Action by scientists (SRU)
BLUE	A volcanic eruption is about to occur or is occurring near Saint Lucia and is likely to have effects in Saint Lucia's territory. Alert given by the NEMO within Saint Lucia.	Warning. Providing NEMO with information about the location of the volcanic activity, the possible type of eruption, the expected time for the eruption (months, days, hours), the expected effects in Saint Lucia due to the volcanic eruption and give suggestions of actions to be taken.

11.2.- Volcanic Eruption Meetings

Once the warning and the alert level has been given to the Director of the National Emergency Management Office, the Director will notify all the members of the NEMO indicating:

- 1.- The alert level. (yellow, orange, red or green)
- 2.- The conditions that have been detected that may precede a volcanic eruption (symptoms)
- 3.- The possible type of eruption (1, 2, 3 or 4)
- 4.- The expected time for the eruption (months, days, hours). Note. This is included in the alert level.
- 5.- The area that is likely to be affected by the eruption (hazard zones likely to be affected)
- 6.- The actions to be taken.

Every time the Director receives a warning and a change of alert level, he/she shall notify all the members of the NEMO and call for a meeting as follows:

Alert Level	NEMO Meeting	Actions to be taken by NEMO members.
GREEN	Green meeting	Meeting is only necessary when coming down from yellow, orange or red level. Otherwise, activities will be: permanent public awareness campaigns; permanent planning for evacuation and execution of simulation exercises.
YELLOW	Yellow meeting	Increase population awareness measures and advisories through the media announcing the immediate need for preparations for evacuation of hazard zone (s) at risk. Revision and updating of emergency plans and preparations for evacuation. Execution of a simulation exercise if possible. When coming down from Orange or Red levels, analyse the

		possibility of letting the population go back to hazard zone (s) depending on the situation.
ORANGE	Orange meeting	EOC activated. Immediate evacuation of hazard zone (s) at risk as planned and as practiced through simulation exercises. Ensure it is completely evacuated.
RED	Red meeting	EOC activated. Analysis of the situation. Response/recovery activities depending on the magnitude and duration of the volcanic eruption.

It must be noted that conditions within one alert level could last months or years, so we are speaking here of an initial meeting immediately after the level has changed. Several more can be held after the initial one to assess the situation and to plan and evaluate response, relief, rehabilitation and/or reconstruction activities.

It would be important for the NEMO members to study what happened in the eruption of the Soufriere Hills Volcano in Montserrat. The recommendation from the SRU (Appendix 1, Page 37) to visit Montserrat and see first hand the effects of the volcanic eruption and to study the response given is considered of great importance for the revision and improvement of this Plan.

For the case of an eruption outside Saint Lucia with possible effects in its territory (blue level alert) we have:

Alert level	NEMO meeting	NEMO activities
Blue	Blue meeting.	Immediate meeting of NEMO members. Analysis of the situation and of the possible effects of the volcanic eruption. Alert all the country and key agencies if the eruption occurs, or if it has occurred, and implement activities for the protection of the population, infrastructure and the environment of Saint Lucia.

The activities will depend on the type of eruption and its effects in Saint Lucia; however, it is highly likely that the effects would be due to ashes and/or to tsunamis. Special attention must be given to airports, seaports, clean up activities and protection of human health and the environment.

11.3.- Structure of the Response.

The response will be co-ordinated from the EOC, going from the National level to the sectoral levels and to the local level (District level). Contact is maintained with regional and international organisations.

NEMO will receive the warning from the SRU and notify all the NEMO members. NEMO/EOC will be communicated to all Committees, all EOCs in the country, to neighbouring countries and to regional and international agencies involved.

In figure 11.1 below, the relation between the different organisations in the case of a response during an emergency/disaster is shown:

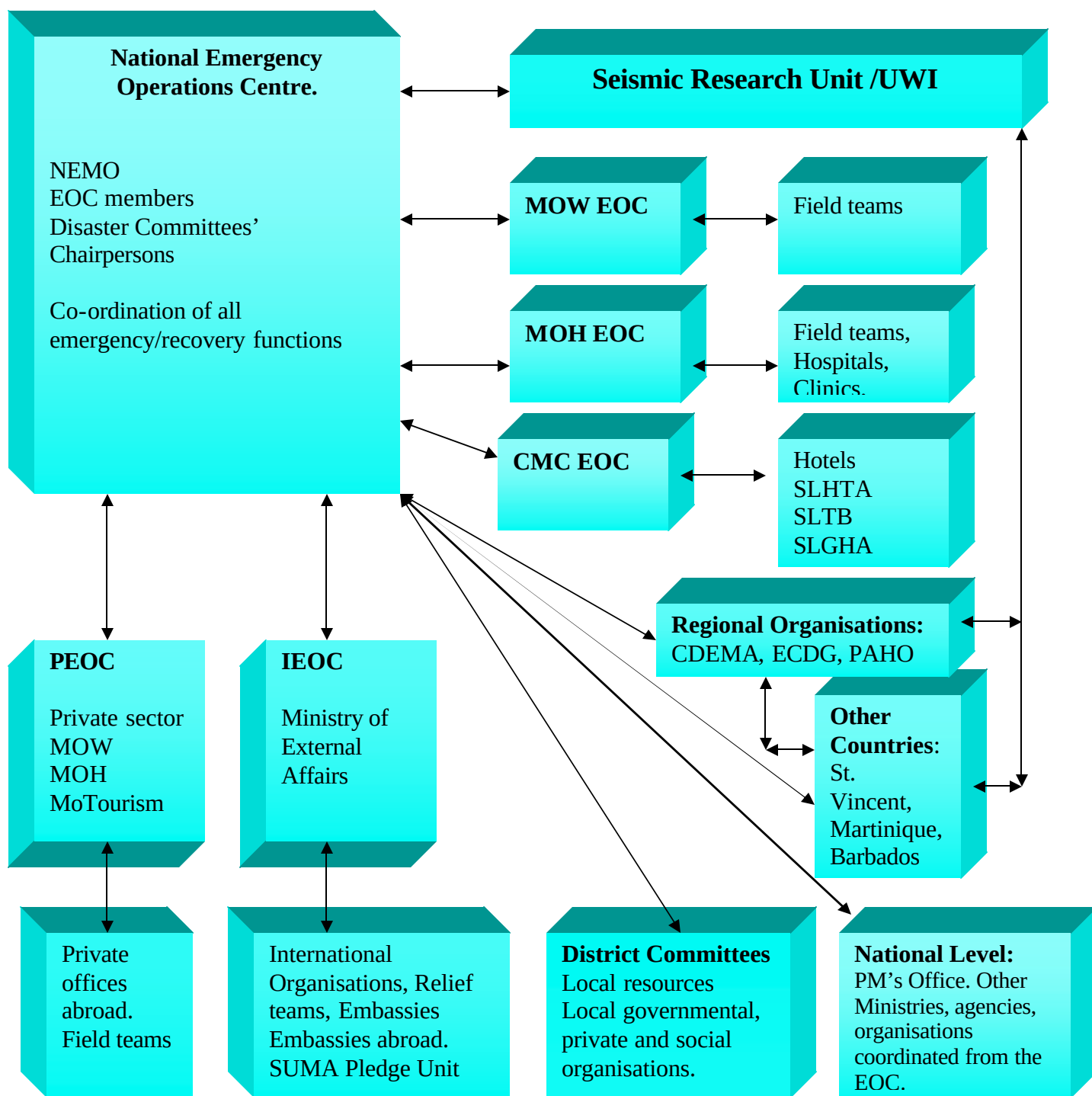


Figure 11.1 Structure of the Response and Co-ordination from the EOC.

12.- Relation with other Plans

The Saint Lucia National Volcanic Eruption Response Plan is a part of the Saint Lucia National Emergency Management Plan (Section 03-03).

The Saint Lucia National Volcanic Eruption Response Plan is related to other plans as follows:

12.1. National Plans

The Plan is related to other national plans insofar as some of its procedures are the same or similar to and applicable to other national plans such as the Saint Lucia National Hurricane Plan and the Saint Lucia National Earthquake Response Plan.

The similarity of procedures, its homogeneity and its insertion in different national plans ensure that the adequate response is given even in case two hazards are present at the same time.

12.2. Regional and International Plans

The National Volcanic Eruption Response Plan intends to organise and optimise the response of the organisations in the country in case of a threat and impact of a volcanic eruption.

Only in the event that the amount of damage caused by the volcanic eruption totally overwhelms the country's response capacity, will regional and international assistance be called for.

Regional and International plans should be made with the knowledge of NEMO. Those plans should consider the emergency response planned in the Volcanic Eruption Response Plan and its Procedures in order to respond accordingly and with respect to Saint Lucia's sovereignty.

Some of the Regional and International plans and mechanisms that consider sending personnel and resources to the Caribbean countries after an emergency and/or a disaster are the following:

a.- The Regional Response Mechanism activated by CDEMA . Reconnaissance mission. Damage Assessment and Needs Analysis teams, CDRU. Appeal to donors.

b.-Operation Orders of the Eastern Caribbean Donor Group.

c.- PAHO Guidelines for Assisting Caribbean Governments in the event of a Disaster. (CPC office Barbados.)

d.- Other response and relief mechanisms and plans considered by other agencies and organisations such as OFDA, Southcom or any other that intends to provide assistance to Saint Lucia in case of a disaster (OCHA, Red Cross, ADRA, etc.)

It has to be provided, however, that:

- 1.- The National Volcanic Eruption Response Plan is distributed to those regional and international organisations that are to provide assistance in case of a disaster. They all have to be acquainted with the Plan and its procedures.
- 2.- The plans, procedures and response mechanisms from the regional and international organisations have to be made with the knowledge of Saint Lucia. That is, the Government of Saint Lucia and NEMO has to know the emergency response/relief plans of the regional and international organisations beforehand. The regional and international organisations have to distribute their plans amongst the Saint Lucian authorities concerned (NEMO, External Affairs, MOH, etc.)
- 3.- The parties have to agree on the co-ordination mechanisms, plans and response/relief activities that are to be executed in case of a disaster within and outside the country. All the plans and mechanisms for foreign assistance have to be compatible with Saint Lucia's policies on these matters.
- 4.- The mechanisms for request and for providing international assistance have to be very clear and at all times have to be followed by foreign organisations according to agreed emergency procedures and always being respectful of the country's sovereignty and to the country's institutions.

12.3. Local Plans/Procedures

All Districts should have their District Disaster Plan according to the Model District Plan provided by NEMO. Besides the District Plan, the National Emergency Plans (Hurricane Plan, Earthquake Response Plan, Volcanic Eruption Plan and the Oil Spill Plan), consider a specific Emergency Procedure for the District Disaster Committees. These Emergency Procedures establish the specific response that has to be given at the local level by the District Disaster Committee per type of hazard and the support the local authorities have to provide to the national organisations; in the same way, they have to establish when and what kind of assistance is needed from the national level.

12.4. Plans from other Countries.

Plans from other countries are of importance insofar as they might consider assistance from, or to, Saint Lucia in the case of a disaster caused by a volcanic eruption. Plans have to be known by all the parties involved and have to be compatible. Saint Lucia should have the volcanic eruption plans at least from: Saint Vincent, Grenada, Martinique and Dominica. At the same time, Saint Lucia should send its National Volcanic Eruption Response Plan to the National Disaster Organisations in those countries.

Regional meetings to improve the level of warning and response should be held between these countries (and others if necessary) and organisations such as the SRU and CDEMA. Seminars and workshops should also be held to study the volcanic eruption in Montserrat, its effects (society, environment, economy, etc) and improve emergency planning and resources in Caribbean countries.

13.- Preparedness Activities for the Response.

13.1.- Evacuation

Perhaps the most important response activity during a volcanic eruption threat is evacuation. The conditions and characteristics of volcanic eruptions such as: lava, lahars, pyroclastic flows and falls make them particularly destructive and lethal. People who do not evacuate hazard zones are likely to die, be burned, or buried under tons of stones and mud. Therefore; if asked to by the EOC, all the population in a specific hazard zone must evacuate. This can be achieved by involving the population in the planning process and by increasing and improving public awareness campaigns. Otherwise any evacuation plan or procedure is useless and the only solution would be, then, forced evacuation. Disaster managers should not assume that the population will evacuate immediately when they tell them to do so. On the contrary, they should start from the assumption that the first reactions of the population when told that a hazard will strike would be disbelief and refusal to evacuate.

So, the best way to achieve an evacuation is to involve the people that live in areas at risk in the planning process. Here we suggest two main activities: public awareness and education campaigns, and simulation exercises.

Evacuation should be planned for the hazard zones determined in section 14: information about number of inhabitants, roads, and exact delimitation of the zones must be determined by the NEMO and its members.

It must be highlighted that because of the great damage that can be generated by a volcanic eruption not only to people and infrastructure, other vulnerable elements can be affected, such as historical and archaeological sites as well as archives and important information; therefore, evacuation must consider not only the population of a specific hazard zone, but also other key vulnerable elements in it. The identification of those elements and their inclusion in emergency evacuation planning must be done through the general emergency planning process.

13.2.- Public Awareness and Education.

Volcanic-eruption public awareness campaigns have been carried out in Saint Lucia and should be continued as much as possible, particularly in the areas most likely to be affected in the event of volcanic eruptions.

From Appendix 1, page 35 we have: "Public education is a very important part of hazard mitigation. Many governments avoid public education because they do not want to cause

unnecessarily panic among the population in times of no increased volcanic activity. Consequently, in times of crisis the public are not adequately prepared or educated about the risks of living on the flanks of a potentially active volcano. This can lead to misunderstandings, misinterpretations, confusion and panic during a crisis. The population of southern Saint Lucia should be educated about the risks of living near a potentially active volcano BEFORE an increase in volcanic activity occurs... The Seismic Research Unit is willing to help organize and sustain a public education program for Saint Lucia on volcanic and seismic hazards. One of the most effective ways of sustaining awareness is to introduce a volcanic and seismic hazards component into the school curriculum thus ensuring that the information is passed on from generation to generation.”

In general, the public must know:

- 1.- That there is a volcanic risk. A volcanic eruption can occur.
- 2.- The effects of a volcanic eruption if it occurs. How can they be affected?
- 3.- The response measures governmental agencies would execute if there is a threat of a volcanic eruption or if it has occurred.
- 4.- The measures they have to take to protect themselves, particularly regarding evacuation.
- 5.- How can they participate in the planning process and in preparation activities for an evacuation such as simulation exercises.

13.2.- Evacuation Simulation Exercises.

Simulation exercises are supposed to test the response and level of preparedness of response personnel and the status of plans and equipment. Simulation exercises are normally executed to test governmental, private and social organisations involved in the response. This is very good for most of emergency procedures that involve only response organisations; but what about emergency functions that involve the population, such as evacuation, for instance? In these cases, the population has to be involved as well, both in the planning and in the testing of planning (simulation exercises): evacuation exercises must involve the population at risk that is to be evacuated under a specific threat of a specific hazard, in our case, although these statements are valid also for hurricanes, we refer to evacuation in the case of volcanic eruptions. Not involving the population in simulation exercises, together with a deficient public awareness campaign, has, in several countries, caused problems with evacuation of the population at risk once the volcanic eruption threat is present.

So, disaster management organisations must first define hazard zones and then estimate their population and determine the resources needed to conduct an adequate evacuation once a volcanic eruption threat is present. The population must be informed about these activities and be involved in the planning, organisation, execution and evaluation of evacuation simulation exercises. Yearly simulation exercises or, at least, one every two years will educate the population and make them accustomed to participating not only in simulations but also during a real event.

Therefore, NEMO and the agencies participating in evacuation must start, as soon as possible, designing a simulation exercise programme for evacuation in the case of volcanic eruptions for Saint Lucia.

More about simulation exercises is discussed in the relevant section of this plan.

13.3.- Evacuation Plans per Hazard Zone.

Specific evacuation plans for each hazard zone must be designed and tested by:

- NEMO
- Police
- Fire Service
- Transportation Committee
- Shelter Management Committee
- District Committees in Hazard zones

Other Committees and organisations may be invited.

The evacuation plans must be designed in order starting with hazard zone 1.

The plans must be tested by simulation exercises.

PART II - DISASTER SCENARIOS

14.- Hazard Description

14.1.-Volcanic Centres.

In Appendix, 1 pages 5-10, information about the volcanic centres in Saint Lucia can be found. From Appendix 1, then, we have that: “The Soufrière Volcanic Centre is the focus of the most recent volcanic activity in Saint Lucia. It comprises a series of different volcanic vents and a vigorous high-temperature geothermal field manifested at the Sulphur Springs area. It is located within the Qualibou depression, an arcuate structure that formed about 300 thousand years ago due to an extremely large gravity slide (Figure 14.1). The oldest dated rocks of the Soufrière Volcanic Centre are 5 – 6 million year old basaltic lava exposed near the coast at Jalousie and Malgretoute. This probably correlates with the basaltic activity of similar age further to the southeast. About 2 million years ago a major phase of volcanism led to the formation of Mt. Gimie and its neighbouring mountains. The spectacular Pitons are the remnants of two large dacitic lava domes that formed about 200 – 300 thousand years ago.

An intense and violent phase of volcanic activity occurred at the Soufrière Volcanic Centre between 40 and 20 thousand years ago when a series of major eruptions produced numerous dacitic pyroclastic flows and surges that flowed down all major valleys in the southern half of Saint Lucia and produced the deposits that now make up the southern slopes of the island. The deposits formed during these explosive eruptions have been divided into two main groups: the Choiseul and the Belfond pumice deposits (Wright *et al.* 1984). It has been proposed that these explosive eruptions occurred from within the Qualibou depression, and led to the formation of a semi-circular volcanic collapse feature known as the Qualibou caldera (Wohletz *et al.* 1986; see Figure 2). Other workers claim that the radial distribution of the numerous pyroclastic flow deposits in southern Saint Lucia suggests that they did not come from within the Qualibou depression at all, rather from small vents in the Central Highlands (e.g. Mt. Grand Magazine and Piton St. Esprit) (Roobol *et al.* 1983 and Wright *et al.* 1984). The nature of the Choiseul and Belfond pyroclastic flow deposits indicate a particular style of eruption. They were formed by explosive eruptions that generated a buoyant eruption column which subsequently collapsed to produce pyroclastic flows. Such eruptions are particularly devastating, because the pyroclastic flows that are generated can travel out from the vent in all directions.”

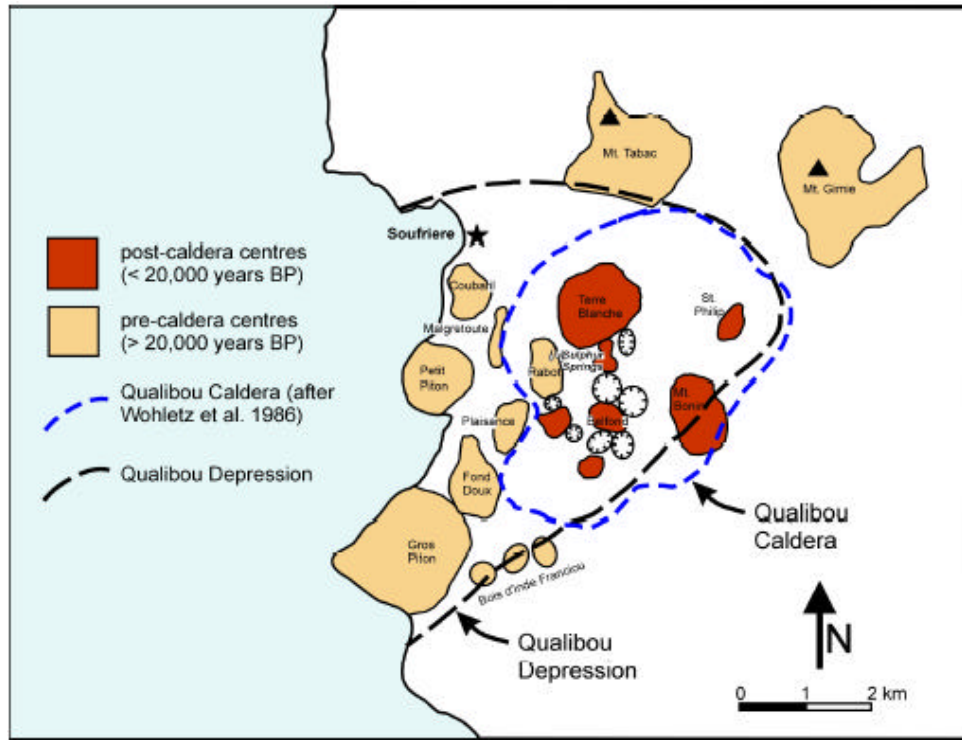


Figure 14.1 Soufriere Volcanic Centre¹

Volcanic activity could occur in the Qualibou Caldera or in the Central Highlands.

14.2.- Types of Eruptions.

From Appendix 1, page 3, we have: “The Soufrière Volcanic Centre is the most likely location for future eruptions in Saint Lucia. There are four different scenarios for future activity at this centre; in order of decreasing probability these are:

- 1) A phreatic (steam) or hydrothermal eruption from the Sulphur Springs area;
- 2) A small explosive magmatic eruption forming an explosion crater in the Belfond area;
- 3) An effusive magmatic dome-forming eruption within the Qualibou Caldera and
- 4) A large explosive magmatic eruption from either the Central Highlands or from within the Qualibou Caldera.”

¹ From “Volcanic Hazard Assessment of Saint Lucia, Lesser Antilles” by Jan Lindsay, Jerome David, John Shepherd and Judith Ephraim. SRU, UWI, September 2002.

14.3.- Volcano Monitoring.

See Appendix 1, pages 31-32. There we have that: “A future eruption on Saint Lucia should be preceded by characteristic warning signs, and monitoring of the volcanic features for these warning signs is extremely important. More detailed information regarding the monitoring programme is provided in the scientific supplement (*‘Scientific Supplement to the Volcanic Hazard Assessment for Saint Lucia, Lesser Antilles’* by Jan Lindsay, Jerome David, John Shepherd and Judith Ephraim, SRU-UWI, September 2002.)

“Volcanic eruptions are usually preceded by shallow earthquake swarms, and seismic monitoring is the single most useful monitoring technique at an active volcano. The Seismic Research Unit monitors earthquake activity in Saint Lucia via seismometers installed near the volcano. Recently, the seismic network in Saint Lucia was upgraded from 4 to 7 stations (Figure 14.2. below), and a base station installed at Moule-a-Chique.

“Prior to erupting at the surface, magma often causes updoming within the crust which is detectable using sophisticated equipment for measuring ground deformation. In January 2001 a base network for measurement of ground deformation was set up in southern Saint Lucia. This involved the installation of a number of metal pins whose precise location will be measured periodically using GPS equipment. This will allow scientists to check for minute displacements of the ground in volcanic areas that might indicate magma movement towards the surface. This is a powerful tool that will be used to identify precursor activity prior to the onset of a volcanic eruption and to identify any post-eruption activity.

“Sometimes changes in the chemistry, temperature, energy and location of fumaroles and hot-springs may precede a volcanic eruption. In the event of a future eruption from the Soufrière Volcanic Centre the fumaroles and hot springs of Sulphur Springs *may* show signs of increased activity in the months prior to the onset of an eruption. To date there have been many investigations into the potential geothermal energy resource at Sulphur Springs, but no programme of regular monitoring of geothermal activity. In April 2001 the Seismic Research Unit established a programme to regularly sample and analyse gas and water samples from Sulphur Springs. Any changes in fumarolic or hot/cold spring activity on Saint Lucia should be reported to the National Emergency Management Organisation (NEMO) and/or the Seismic Research Unit as soon as possible.”

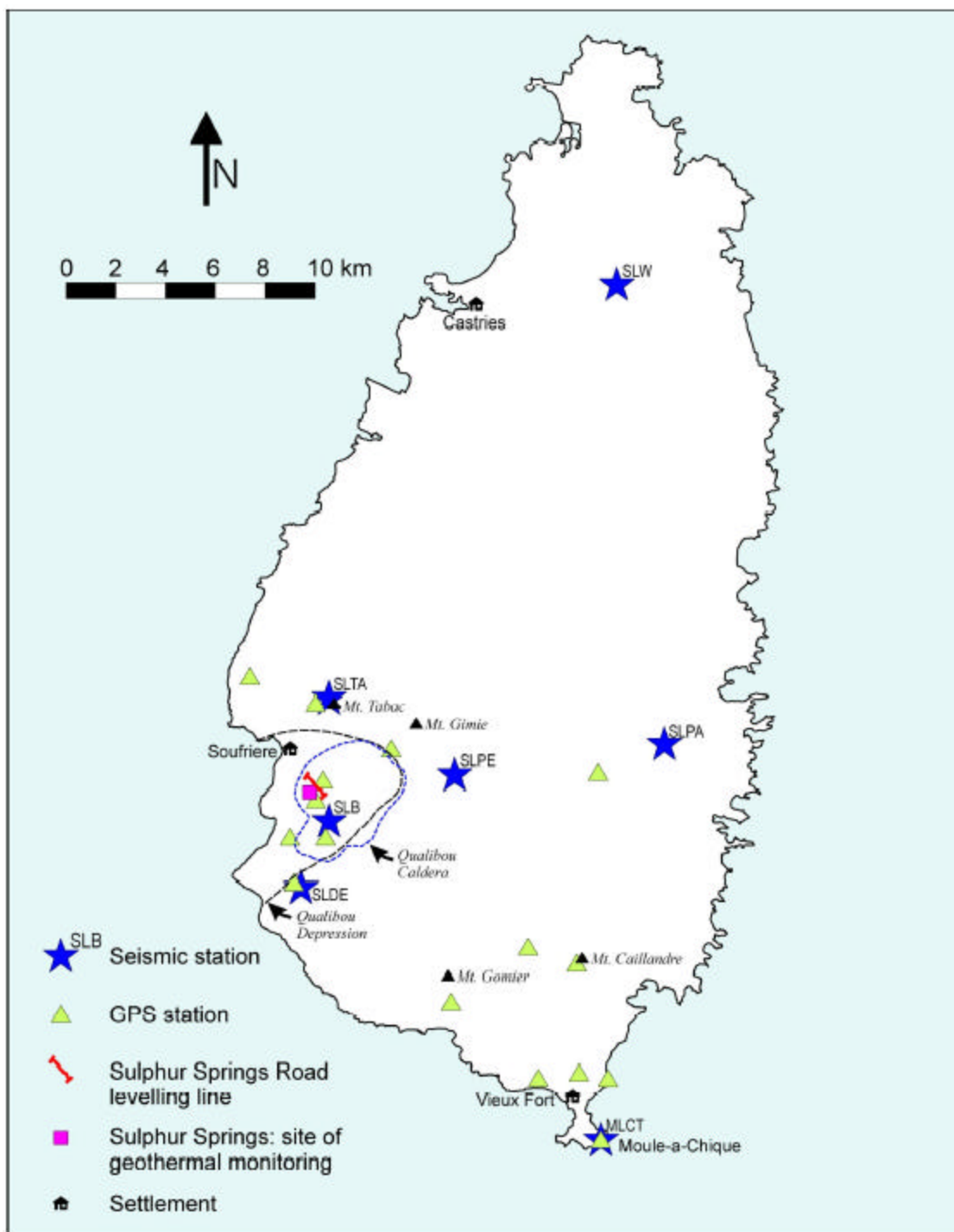


Figure 14.2. (From Appendix 1). Volcano monitoring network in Saint Lucia. The base stations for both seismic and GPS sub networks are located at Moule-a-Chique.

15.- Volcanic Activity in Saint Lucia.

15.1.- Historic Volcanic Activity.

Historical eruptions are described in Appendix 1, page 10: “Historical eruptions in the Caribbean are generally regarded as those that have occurred since European settlement and the introduction of written records of the region. In Saint Lucia European settlement began in the early 1600s but was intermittent for most of the 17th century, changing hands several times between the French and English. There have been no historical *magmatic* eruptions in Saint Lucia, i.e. eruptions involving the effusive or explosive ejection of magma at the surface of the Earth. There have, however, been several minor *phreatic* (steam) explosions from the Sulphur Springs area in historic times. The last one occurred in about 1766 and was described by Lefort de Latour (1787) as a ‘minor explosion..... which spread a thin layer of cinders far and wide’. These ‘cinders’ (ash) probably represented fragments of old rock blasted apart by expanding steam rather than fragments of new magma.”

15.2.- Future Volcanic Activity.

When and where exactly a volcanic eruption will occur cannot be determined: “For the last 20 thousand years, volcanic activity in Saint Lucia has taken the form of effusive lava dome-forming eruptions and minor explosive eruptions forming explosion craters within the Soufrière Volcanic Centre. The 1766 phreatic eruption together with the vigorous and changing nature of the Sulphur Springs geothermal field suggests that phreatic and hydrothermal eruptions have occurred regularly at Sulphur Springs in the past. This history indicates that the Soufrière Volcanic Centre is the most likely location for future eruptions in Saint Lucia.

“In order to determine when a future eruption may occur it is often useful to look at the past eruption frequency at a given volcano. Eruption frequency can be estimated from carbon dating charcoal found in pyroclastic deposits or by dating lava flows or domes. Analyses of both charcoal and lava samples of the Soufrière Volcanic Centre have yielded ages ranging from about 5 million years to 20 thousand years. The oldest ages were obtained from the basalts at Jalousie and Malgretoute, and the youngest ages from the Belfond pyroclastic flow deposit. There are, unfortunately, many gaps in the data. For example, we do not know the age of Mt. Tabac, the explosion craters within the caldera, or the domes of Bois d’inde Francou, Rabot, Fond Doux, Terre Blanche, Morne Bonin or Belfond. The best we can say is that Saint Lucia does not appear to have a long recent history of explosive eruptions, rather major explosive activity seems to have been concentrated in the time period between about 35 and 20 thousand years ago. Since then there have been several effusive lava-dome forming eruptions from a number of different centres, and minor explosive activity leading to the formation of small explosion craters. The only historic activity in the Soufrière Volcanic Centre has been minor phreatic eruptions from Sulphur Springs, the most recent in 1766. The lack of age data makes it impossible to develop an eruption frequency for Saint Lucia, and therefore difficult to determine when the next eruption might occur.

“It is important to note here that not all erupted products are preserved in the geologic record and only those pyroclastic deposits in which charcoal is found can be dated. Pyroclastic deposits are

unconsolidated and easily eroded. For example, the 1902 eruption of the Soufrière of St. Vincent killed ~1600 people but the deposits from this major eruption have been almost completely eroded away and there is very little geologic record of the eruption (R. Robertson, pers. comm.). It is therefore possible that more eruptions have occurred in Saint Lucia over the last 20 thousand years and that their products have not been preserved.” (Appendix 1, pages 19-20).

16.- Disaster Scenarios

16.1.- Four Disaster Scenarios.

There are four possible scenarios (types of eruptions). They are described thoroughly in Appendix 1, pages 21-28. They are:

- 1) A phreatic (steam) or hydrothermal eruption from the Sulphur Springs area;
- 2) A small explosive magmatic eruption forming an explosion crater in the Belfond area;
- 3) An effusive magmatic dome-forming eruption within the Qualibou Caldera and
- 4) A large explosive magmatic eruption from either the Central Highlands
or from within the Qualibou Caldera.

For scenario 3 we have the following figure:

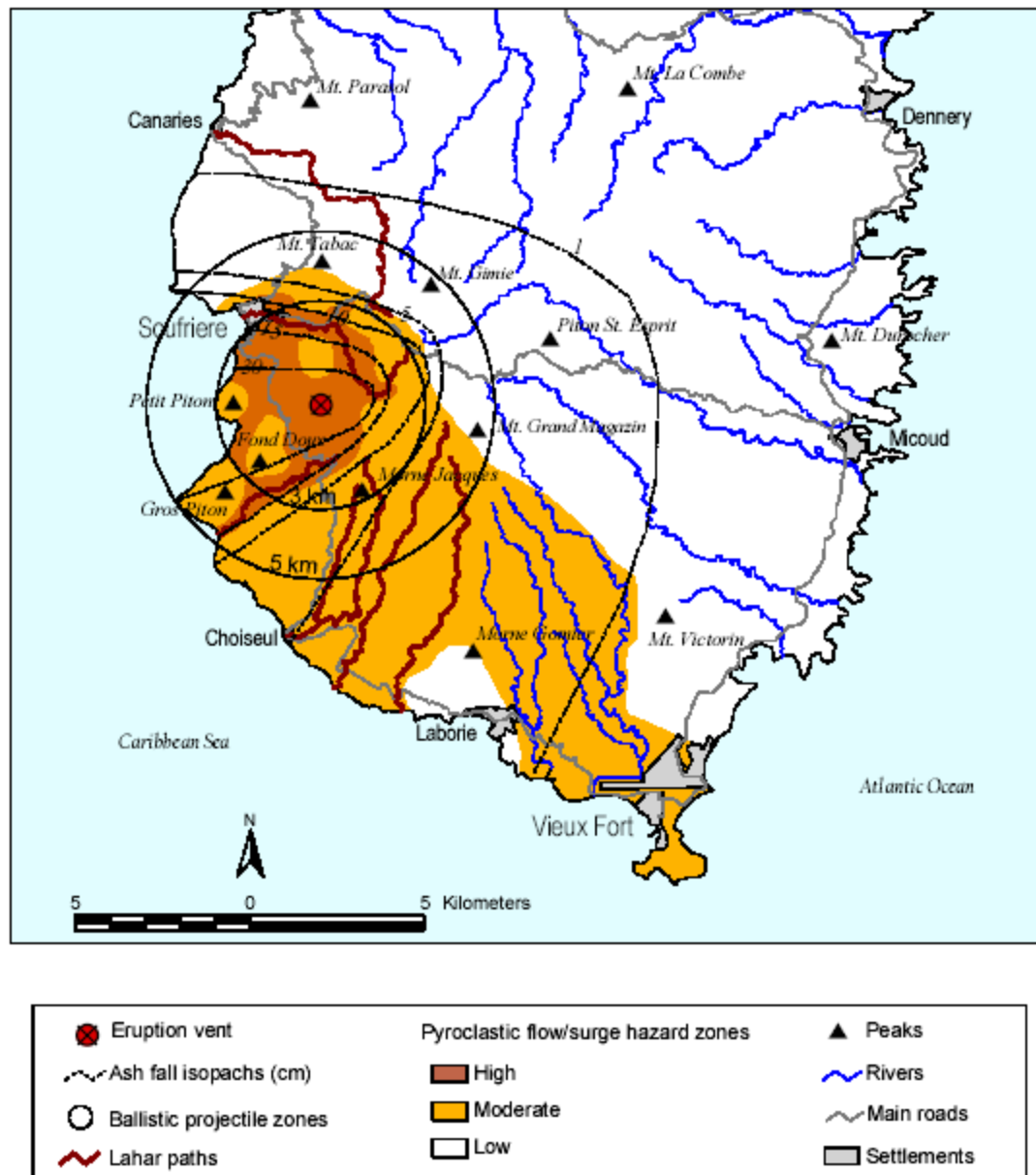


Figure 16.1 Volcanic Hazard map for Saint Lucia based on Scenario 3. A dome forming eruption from within the Soufriere Volcanic Centre. (From Appendix 1, page 25.)

For Scenario 4 we have:

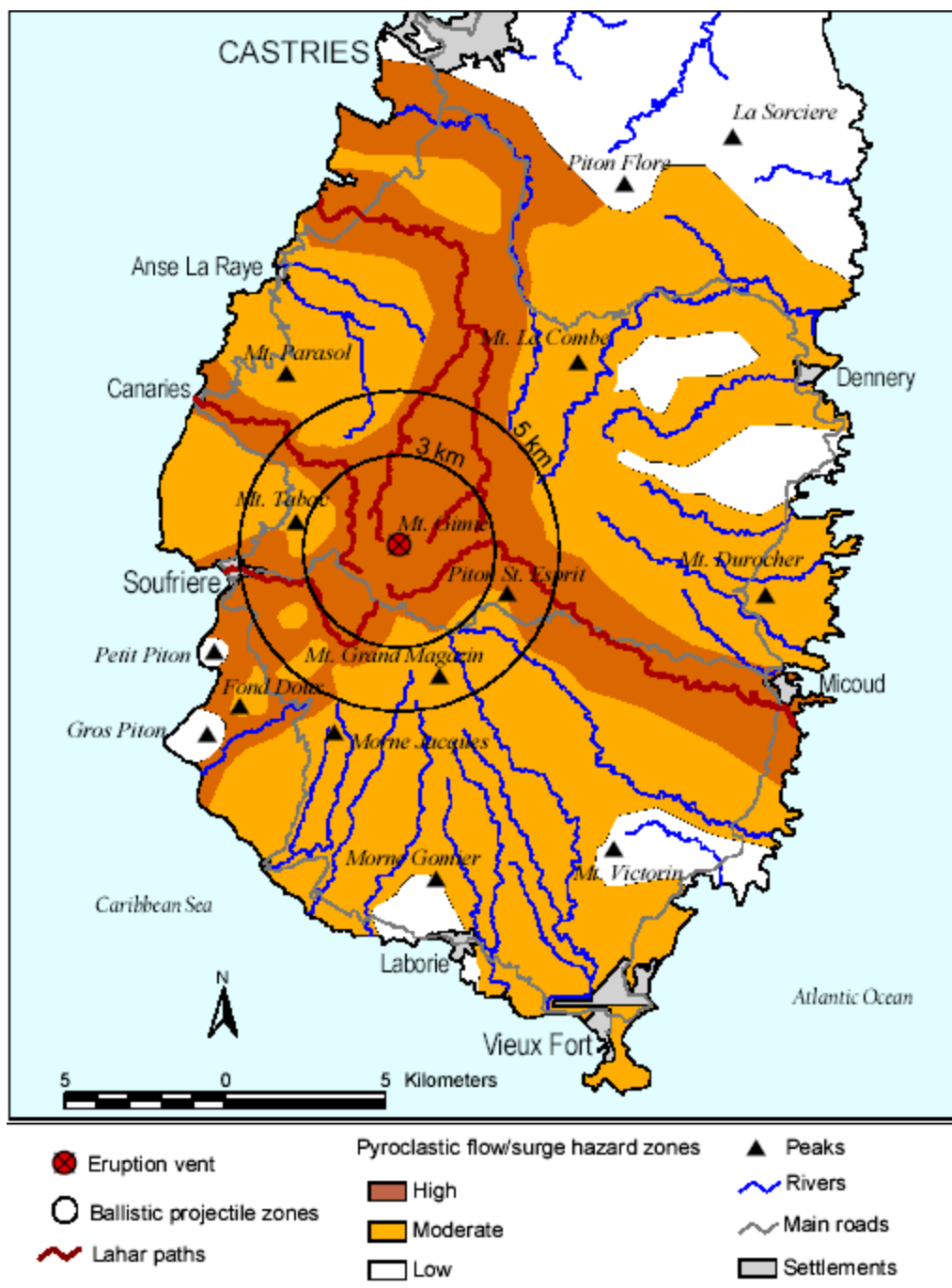


Figure 16.2 Volcanic hazard map for Saint Lucia based on scenario 4. An explosive magmatic eruption within the Soufriere Volcanic Centre or the Central Heights. (from Appendix 1: "Volcanic Hazard Assessment in Saint Lucia, Lesser Antilles" by Jan Lindsay, Jerome David, John Shepherd and Judith Ephraim, SRU-UWI, September 2002.)

So, in summary, we have that the scenarios are:

Minor Activity/ Most Likely	Major Activity/ Least Likely
Scenario 1: Phreatic or hydrothermal eruption from the Sulphur springs geothermal field.	Scenario 3: Moderate effusive dome-forming eruption within Qualibou Caldera
Scenario 2: Small explosive eruption forming an explosion crater in the Belfond area	Scenario 4: Large explosive eruption from either the Central Highlands or from within the Qualibou Caldera.

Table 16.1. Possible scenarios for future activity from the Soufriere Volcanic Centre. The scenarios decrease in likelihood from scenario 1 (most likely) to scenario 4 (least likely). Scenarios 2-4 are magmatic eruptions, i.e., involve effusive or explosive ejection of magma at the surface of the Earth. In scenario 1 there is no eruption of fresh magma at the surface.

17.- Hazard Zones.

17.1.- Four Hazard Zones.

Four hazard zones have been derived from the three most likely scenarios. The worst-case scenario has not been taken into consideration for these zones. The four zones, as Appendix 1 recommends, “should be used for planning evacuation scenarios and in-long-term land-use planning in Saint Lucia.”

Specific evacuation plans have to be written for these zones involving the population.

The hazard zones are shown in the following figure:

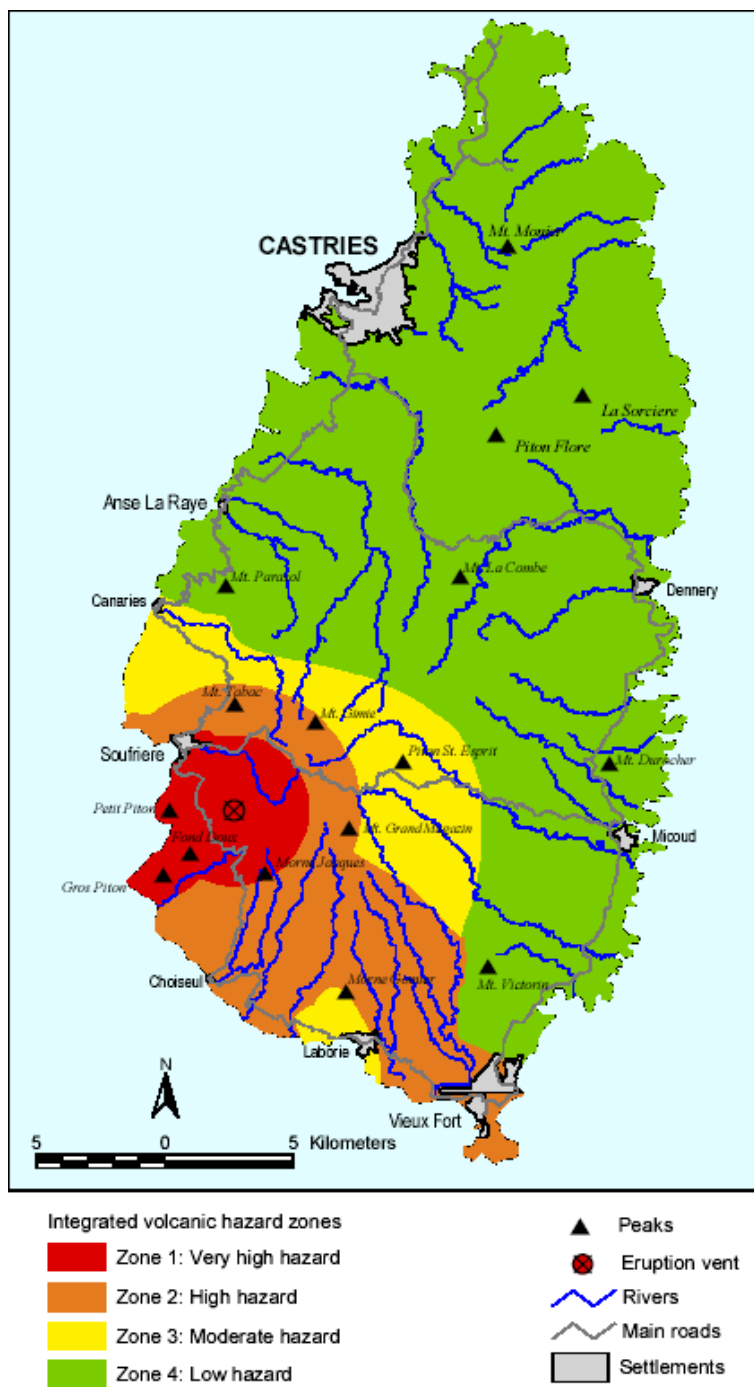


Figure 17.3.- Integrated Volcanic Hazard Zones for Saint Lucia based on a combination of the three most likely scenarios. (from Appendix 1. Page 30)

18.- Conclusions and Recommendations from Part II.

- 1.- There are active volcanic centres in Saint Lucia.
- 2.- Eruption can occur from within the Qualibou Caldera or from the Central Heights.
- 3.- Four different scenarios for future activity have been proposed.
- 4.- Although it is not possible to say exactly when a volcanic eruption can occur, the different scenarios can be grouped according to the likelihood of their occurrence.
- 5.- A map of integrated hazard zones has been defined based on the three more likely scenarios.
- 6.- Certain symptoms (seismic activity, gas emissions, ground deformation) can provide warning that a volcanic eruption is likely to occur.
- 7.- These symptoms (seismic activity, gases emissions, soil deformations) are monitored by the SRU.
- 8.- Since the symptoms can be detected, measured and monitored, the SRU can give a warning to the NEMO to initiate action according to the alert level.
- 9.- Since there is time, then, between the warning and the volcanic eruption, evacuation of hazard zones can be executed by the authorities with the collaboration of the population.
- 10.- In order to evacuate the hazard zones during an imminent volcanic eruption, previous and permanent work has to be done with the population and the communities regarding public awareness, public education and participation in evacuation simulation exercises.
- 11.- Further work has to be done by the NEMO jointly with the SRU and governmental organisations to exactly determine the quantitative parameters that determine going from one alert level to another; the exact delimitation of hazard zones, and the identification of key vulnerable elements per hazard zone.
- 12.- Emergency planning and evacuation planning should be focused on the most likely scenarios rather than the least likely scenarios.

PART III - EMERGENCY RESPONSE AND RELIEF

19.- Emergency Response and Recovery Activities.

19.1. 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 have to 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 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.

19.2. Response/Recovery Activities.

General emergency response and recovery activities for different kinds of hazards are presented in the following table, they are:

Table 19.1 General List of Functions and Sub-functions for Emergency Planning.

Hazard/ Function	Earthquakes /Floods	Earthquakes	Land-slides (rapid onset)	Volcanic eruption	Fire	Oil spills	Haz mat accidents	Accidents	Hazard i +1 ... Hazard n
1.Warning/ Monitoring	X			X					
2.Notification	X	X	X	X	X	X	X	X	
3.EOC	X	X		X		X			
4.ICS			X		X	X	X	X	
5.Comm- Unications	X	X	X	X	X	X	X	X	
6.- Transportation	X	X	X	X					
Hazard/ Function	Earthquakes /Floods	Earthquakes	Land-slides (rapid	Volcanic eruption	Fire	Oil spills	Haz mat acciden	Accidents	Hazard i +1 ...

			onset)				ts		Hazard n
7.Control of the hazard					X	X	X	X	
8.Evacuation	X	X	X	X	X	X	X	X	
9.Shelter management	X	X	X	X		X		X	
10.Search and Rescue	X	X	X	X	X			X	
11.Security	X	X	X	X	X	X	X	X	
12.Medical attention	X	X	X	X	X	X	X	X	
13.Environmental Health	X	X	X	X		X	X		
14.Damage assessment & needs analysis	X	X	X	X	X	X	X	X	
15.Foreign Assistance	X	X	X	X		X	X	X	
16.Supply management.	X	X	X	X					
17.Public Information	X	X	X	X	X	X	X	X	
18.Protection and Rehabilitation of Infrastructure	X	X	X	X	X	X	X	X	
19.Environmental restoration	X	X	X	X	X	X	X		
20.Reconstruction	X	X	X	X	X	X	X		

Table 19.1 Cont. General List of Functions and Sub-functions for Emergency Planning.

The functions below are general and can change and be modified depending on the specific hazard, vulnerable elements and emergency organisations considered in the emergency plan:

1. Warning & Monitoring
2. Notification
3. EOC
4. Incident command system
5. Communications
6. Transportation
7. Control of the hazard
8. Evacuation
9. Shelter management
10. Search and rescue
11. Security
12. Medical attention/counselling
13. Environmental health

14. Damage assessment and needs analysis
15. External assistance
16. Supply management
17. Public information
18. Protection and rehabilitation of Infrastructure
19. Environmental Protection and Rehabilitation
20. Reconstruction

Breaking them down we would have different sub-procedures or sub-activities that have to be considered in general procedures:

1. Warning & Monitoring (predicting the threat and impact of a hazard).
 - a. Earthquakes, floods and rainstorms
 - b. Volcanic eruptions
 - c. Landslides (slow onset.)
2. Notification (that a hazard has occurred)
 - a. Hurricanes
 - b. Earthquakes
 - c. Landslides (slow onset)
 - d. Accidents (boats, aircraft crashes, vehicles)
 - e. Hazmat accidents (oil spills, fires, others)
 - f. Any other hazard.
3. EOC
 - a. NEOC
 - b. Local EOCs
 - c. Sectoral EOCs
4. Incident Command System
 - a. Per type of event.
5. Communications
 - a. Localised event
 - b. Nation wide event
 - c. Region wide event
6. Transportation
 - a. Land
 - b. Water (sea, fluvial, other)
 - c. Air
7. Control of the hazard (not applicable for natural hazards)
 - a. For controllable chemical hazards (fires, spills, gas leaks, etc.)
 - b. For man-made hazards (bomb threats, terrorist attacks, bank robberies, etc).
8. Evacuation.
 - a. Evacuation in the case of predictable hazards (pre-impact)
 - b. Re-location in the case of unpredictable hazards (post-impact)
9. Shelter Management
 - a. Shelter Management for evacuees (predictable hazards)
 - b. Shelter Management and Emergency Housing for relocated people (non-predictable hazards or impact with long term effects on housing)

10. Search and Rescue (governmental, private and volunteer resources)
 - a. After a hurricane or boat accidents (maritime)
 - b. After an earthquake (under rubble)
 - c. Other cases (fire, landslides [mountain], etc.)
11. Medical attention (including governmental, private, social and volunteer organisations)
 - a. Trauma caused by accidents or collapse of buildings
 - b. Trauma caused by volcanic eruption, fires or hazardous substances
 - c. Mental health/Counselling
12. Security (securing places or areas, control of looting, riots, terrorism, etc.)
 - a. Nation wide event
 - b. Localised event
13. Environmental health
 - a. Surveillance
 - b. Adequate quality and quantity of water supply
 - c. Food safety
 - d. Adequate waste disposal
 - e. Vector and rodent control
 - f. Adequate disposal of dead bodies (people and animals)
14. Damage assessment and needs analysis
 - a. Damage Assessment and Needs Analysis (District and National levels)
15. Public Information
 - a. Before the impact in cases of predictable hazards.
 - b. In the Case of the Change of an Alert Level of hazards.
16. External Assistance
 - a. Request of External Assistance (other countries and international and regional organisations)
 - b. Receipt and storage of External Assistance
17. Supply management (by government, private and volunteer groups)
 - a. Adequate storage and distribution of supplies
 - b. Water supply
 - c. Food supply
 - d. Equipment
 - e. Others
18. Protection and Rehabilitation of Infrastructure
 - a. Electricity
 - b. Telecommunications (radios, telephone, radio, TV)
 - c. Water supply
 - d. Food supply
 - e. Medical attention
 - f. Communications
 - i. Terrestrial communications (road clean-up and rehabilitation)
 - ii. Aerial communications (airport runways clean-up and rehabilitation)
 - iii. Maritime communications (ports)
 - g. Garbage collection, transport and final disposal
 - h. Schools, colleges, universities, all teaching institutions.
 - i. All governmental organisations and buildings

- j. Private sector (tourism, banking, industrial, commerce, etc.). Business continuity.
- 19. Environmental Protection and Rehabilitation
 - a. Water (rivers, lakes, sea, underground water) and soil restoration (soil, sub-soil)
 - b. Flora and fauna (protection and reintroduction of affected and/or endangered species and their natural habitats).
 - c. Cultural Heritage. Archaeological sites.
- 20. Reconstruction (Long-term reconstruction of society according to damage)
 - a. Infrastructure
 - b. Services
 - c. Housing
 - d. Other economic sectors (agriculture, industry, etc.)
 - e. Finance and budget administration (loans, grants, donations, etc.)
 - f. Reconstruction programme.

For the purposes of this plan (Volcanic Eruption Response Plan) we will consider those functions presented in column 2 from table 17.1. This is:

1. Notification
2. EOC
3. Communications
4. Transportation
5. Evacuation
6. Shelter management
7. Search and rescue (Land)
8. Search and Rescue (Maritime)
9. Security
10. Medical attention
11. Environmental health
12. Damage assessment and needs analysis
13. External assistance
14. Supply management
15. Public information
16. Protection and rehabilitation of services
17. Environmental protection and rehabilitation
18. Reconstruction

For the purposes of establishing a procedure for the District Disaster Committees and defining their role in the response at the local level and their co-ordination with the national level, we will add another procedure:

19. District Disaster Committee General Response (Volcanic Eruption)

These functions will be the foundation for defining and writing specific emergency procedures for this plan.

20.- Emergency Responsibilities Assigned to the Organisations Involved in the Plan

Each of the functions (emergency/relief activities) has to be assigned to one organisation that has to be responsible for it. However, although only one organisation has to be responsible for one function, several others could assist the main responsible organisation as secondary responsible organisations for the function.

Here we make a brief analysis of main responsibilities for each function and secondary responsible organisations.

Table 20.1. Responsibilities Matrix for Emergency/Recovery Functions in the Case of an earthquake

Hazard/ Function	Main Responsible Organisation	Key Support Organisations (secondary)	Sectoral Plans
1.- Warning/ Monitoring	SRU	Other regional and international academic and research institutes as needed.	
2.Notification	NEMO	SRU, National Committees, District Committees. Government Ministries.	
3.EOC	NEMO	Disaster Committees, District Committees, Ministries, Private Sector	Sectoral EOCs, MOW, Plan, MOH Plan, CMU Plan, Private sector plan.
4.Communications	Telecommunications Committee	Private sector. Amateur radio operators.	MOW Plan. Private Sector Plan
5.- Transportation	Transportation Committee	MOW, volunteers. Private sector.	MOW plan. Crisis Management Plan
6.Evacuation	Royal Saint Lucia Police Force	District Committees, Transportation Committee. CMU.	Crisis Management Plan.
7.Shelter management	Shelter Management Committee.	Welfare Committee, Red Cross, District Committees, Social Organisations. MOH. Supply management Committee.	
8.Search and Rescue (land and marine)	Fire Service. (land) Marine Police (marine)	Transportation Committee, MOW.	
9.Security	Police		
10.Medical attention	Ministry of Health	Private sector. Transportation committee. Fire service, police. Welfare Committee	MOH Plan.
11.Environmental Health	Ministry of Health	Shelter Management Committee.	MOH Plan.
12.Damage	Damage Assessment	Ministry of Works	MOH Plan, MOW Plan,

Assessment & Needs Analysis	Committee		Private Sector Plan. Crisis Management Plan.
13.External Assistance	Ministry of External Affairs	NEMO or Office of the Prime Minister.	
Hazard/ Function	Main Responsible Organisation	Key Support Organisations (secondary)	Sectoral Plans
14.Supply Management.	Supply Management Committee	Governmental Ministries. Private sector. Transportation Committee	Private Sector Plan
15..Public Information	Information Committee (GIS)	NEMO, The Media, All Committees.	Crisis Management Plan.
16. Protection and Rehabilitation of Infrastructure	Works/Rehabilitation Committee	MOW, Private sector	MOW Plan, Private Sector Plan
17. Environmental Protection and Rehabilitation	Saint Lucia Solid Waste Management Authority	MOW. Transportation Committee.	
18.Reconstruction	Ministry of Planning	NEMO, MOW. All Ministries, Private Sector.	
19.- District Disaster Committee Response	District Disaster Committee	Organisations in the District. NEMO. EOC.	District Disaster Plan.

Table 20.1. Cont. Responsibilities Matrix for Emergency/Recovery Functions in the Case of a Volcanic Eruption.

21.- 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. Damage Assessment and Needs Analysis Committee Chairperson
3. Works and Rehabilitation Disaster Committee Chairperson
4. Ministry of Agriculture representative or SRU if on island
5. SLU-GIS representative (cameraman)

Group 2:

1. Police Commissioner.
2. Chief Medical Officer.
3. SLU-GIS representative (cameraman).
4. Crisis Management Unit.
5. Forestry Department.
6. Agriculture Department

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.

It is important to mention that the particular characteristics of a volcanic eruption may not allow any flights due to volcanic hazards (ashes, pyroclasts, etc); therefore, the initial damage assessment flight will only be made if the conditions are safe. NEMO will have to consult with the SRU and the Met Office to determine if the flight can be made or not, and when. Also, it must be highlighted that volcanic eruptions can cause total loss of every vulnerable system in the case of lava-dome collapse, pyroclastic flows, surges and/or lahars (there will probably be no lava flows in Saint Lucia); hence the need to assess vulnerability and identify vulnerable elements in the hazard zones before the eruption.

22.- Emergency Procedures

The Plan includes the following twenty emergency procedures:

- VEP- 001.- Warning
- VEP-050.- Notification
- VEP-100- Emergency Operation Centre (National)
- VEP-150.- Communications
- VEP-200.- Transportation
- VEP-250.- Evacuation
- VEP-350.- Shelter Management
- VEP-400.- Search and Rescue (Land)
- VEP 401.- Search and Rescue (Marine)
- VEP-450.- Security
- VEP-500.- Medical Attention
- VEP-550.- Environmental Health
- VEP-600.- Damage Assessment and Needs Analysis
- VEP-650.- External Assistance
- VEP-700.- Supply Management

VEP-750.- Public Information

VEP-800.- Protection and Rehabilitation of Infrastructure.

VEP-850.- Environmental Protection and Rehabilitation

VEP-900.- Reconstruction

VEP-950.- District Disaster Committee General Procedure (Volcanic Eruption)

Other procedures could be added as the plan evolves through time and as it is tested and evaluated. The reason of having specific numbers for the procedures is that one can recognise a procedure also for its number: from 001 to 99, procedures regarding notification; 700 to 749, procedures regarding emergency supplies, etc. Thus we could add, for instance, a notification procedure for the chairperson of the X Disaster Committee to all its members as VEP 002; another notification procedure for the Y Disaster Committee to all its members as VEP 003 and so forth. In this manner, the plan can grow as the number of its procedures grows, as the need for more emergency procedures is determined by annual revisions, simulation exercises and the results of response to real events.

These procedures are presented in Part V of this plan, they are part of the Volcanic Eruption Response Plan and they have to be executed by the organisations responsible for them as stated in the plan and in the procedures themselves.

PART IV - THE PLANNING PROCESS

23.-Revision and Updating of the Volcanic Eruption Response Plan

23.1 The Planning Process.

Planning is a process, not a product.

A written plan does not necessarily reflect the state of preparedness of an organisation or a country against specific hazards. Particularly if it is old, if it has not been updated and/or if it does not include real information about what is likely to happen and resources to respond against an emergency or a disastrous situation. Being a little bit strict, it could be said that a plan needs to be updated the minute after it has been written.

Resources change in time: personnel changes, organisations change, equipment and vehicles change too; consequently, plans must change also: if plans are not updated, they become useless, for activities and resources considered in them will not be real. Resources do not change every year or every two years. Sometimes they change more often or regularly.

Moreover, the possibilities of interaction and changes between the hazard characteristics, the vulnerable elements that can be affected by the hazards and the response capability of the disaster management organisations are almost infinite. This is why we should permanently try to identify problems and changes in our resources to improve our future response in the case of an event.

So emergency planning:

- Must be a continuous activity. This will allow to identify and to solve problems before any hazard strikes.
- Must involve those in charge of giving the emergency response. All personnel and organisations that have to participate in the response in the case of a threat and/or impact of a hazard must be involved in the planning process. They are the ones who will respond and they are the ones who know what resources they have to do it.
- Must reflect reality. An emergency plan must be based on the real characteristics of:
 - a. Hazards
 - b. Vulnerable elements
 - c. Existing resources to respond
 - d. Expected damage
 - e. The real and adequate response and recovery activities that have to be done in the case of the hazard threat, or impact, according to the possible damage that can occur.

So, the planning process must be done considering:

- A specific revision period. The period in which the written plan or its activities have to be revised and updated has to be defined: monthly, bimonthly, quarterly, yearly, or any other as needed.
- The participation of all the organisations involved in the response. Plans and procedures must be revised by ALL the organisations involved. If this does not happen, or if this happens partially, we will have a useless plan or an incomplete plan that could be useless as well. This includes the planning and response organisations from all sectors and at all levels (government, private, social and National, local and, if needed, international).
- The resources that can be used in the response. Only those resources that exist and/or that are in good working conditions should be considered in the written plan. Lists of personnel that do not exist and/or lists of equipment and vehicles that do not work should not be considered in the written plan. They will not be working or be used in a real response.
- The time and the sequence in which the activities have to be done. The plan and procedures must establish what activities have to be done and when; those that go first and those that have to be implemented after the previous ones. In other words, emergency activities (plans and procedures) are not just *a list* of activities but the description of *a sequence* of activities (through time).
- The definition of clear parameters whose occurrence involve (determine) the consequence of specific response/recovery activities. Quantitative parameters should be developed and clearly established in the plans in order to clearly determine when and under what conditions response/recovery actions have to be taken. Quantitative parameters and indicators have to be designed and developed to trigger the plan, initiate response, to initiate evacuation, to activate and deactivate shelters, to activate and deactivate EOCs, to start a mass casualty event response, to give an 'all clear' message, etc. These are actions based on facts, numbers and other conditions and not based on subjectivity or political decisions.
- The need of testing and evaluating the plans. Emergency planning must be tested through simulation exercises. The evaluation of simulation exercises and the evaluation of real events should take to an immediate revision of the plan and the information included in it.

23.2. Organisations Responsible for Revising the Plan

The general responsibility falls on NEMO as the Co-ordinating organisation of the whole disaster management process: However, all the organisations considered in this plan are responsible for the yearly revision and updating of the procedures they are responsible for and

for the revision and updating of the whole plan itself. All procedures written by the organisations involved in the plan should be sent to NEMO for approval and circulation.

23.3. Revision of the Plan and its Procedures.

It is important to define what is to be understood by revising a plan. So here are the elements that have to be considered in any plan's revision:

A.- General information that justifies the plan:

- Characteristics of the hazard the plan is for (origin, cause, predictability, magnitude, controllability, scope of impact, duration, destructive potential, etc.).
- Characteristics of the vulnerable elements (number, type and location of people at risk, facilities, equipment, information, crops, livestock, infrastructure and services).
- Disaster scenario: What is likely to happen if the hazard strikes a specific vulnerable area (Number, type and location of: casualties, evacuees, homeless, houses, infrastructure and services affected, information lost, environmental impact, etc)
- Functions needed (according to the type of hazard and vulnerable elements): warning, notification, communications, evacuation, shelter activation, search and rescue, medical attention, security, rehabilitation of services, etc.)
- Identification of organisations and assignment of responsibilities: MOH for medical attention, environmental health; Police for security, evacuation; Met office for monitoring and warning, etc.
- Writing down the activities to be implemented: writing the plan and procedures: notification, search and rescue, etc.) See point B below.

B.- The written plan and its contents:

- General information about hazards and response needed (point A above).
- General information about aim, purpose, objectives, legal framework and organisations involved in the plan.
- Conditions (quantitative) that trigger the plan (if applicable [predictable hazards])
- Conditions that activate the response (non-predictable hazards)
- Written description of activities (procedures: main responsibilities, activities through time per responsible per function).
- List of resources to be used in an emergency (see point D below).
- Other information (Maps, charts, etc.)
- Training programme.
- Simulation exercise programme.
- Procedure for revision and updating the plan.

C.- The planning process:

- Date of revision and number of version.
- Organisations involved in the response/recovery.
- Organisation(s) responsible for revising and updating the plan.

- Organisation(s) that revised and updated the plan
- Involvement in the writing of the plan and procedures of all the organisations involved in the response/recovery.
- Evaluation of the training programme
- Results and evaluation of simulation exercises
- Evaluation of real events

D.- Resources.

- Checking the existence (visual/physical/tangible/operational), availability, veracity, level of preparedness, training, and/or working conditions of:
 - Personnel and their training (knowledge of procedures, use of equipment, etc)
 - List of personnel.
 - Directories.
 - Inventories
 - Equipment (communications, heavy equipment, others)
 - Transportation (vehicles, boats, planes, etc)
 - Medicines and medical equipment
- Maps.
- Information (any item quantified or mentioned in the plan: population, # of houses, location and type of shelters, etc.)

As it can be seen, revising an emergency response plan does not only involve reading the document. It has to be done according to a specific model and by a specific approach in order to avoid subjectivity of the plan reviewer(s). This approach will be used in the further revision of the National Emergency Management Plan and its components.

23.4. Responsibilities of the Planning Organisations.

In general all the organisations involved in this plan should:

- 1.- Revise the plan and its procedures according to the previous points (23.1-23.3)
- 2.- Meet at least yearly (Committees and Organisations responsible for all the functions)
- 3.- Revise and update the plan and its procedures at least once a year and every time after a simulation exercise and after real events.
- 4.- Update directories, inventories and other information every year.

For specific responsibilities of NEMO's Director and NEMO's Deputy Director see points 10.1 and 10.2 of this plan.

24.- Dissemination of the Plan

The plan and its procedures have to be disseminated; they are not a secret.

The plan has to be distributed to:

- 1.- All the organisations involved in the planning process and in the response.
 - Governmental
 - Private
 - Social
- 2.- The Media.
- 3.- Regional and international disaster management organisations.
- 4.- Donors.
- 5.- CDEMA Participating States and other interested countries.
- 6.- Academic and Research Institutes.

The dissemination of the plan must be done by NEMO. Copies of the plan could be numbered if considered necessary. Record of all the copies and their possessors could be kept by NEMO if it is NEMO's decision.

25.- Training

It has to be ensured that every training course delivered pertaining to this plan considers the following aspects:

- a.- The need for the training course. The training course is needed to train response personnel considered in the plan.
- b.- The adequate objectives that justify the training course delivery.
- c.- The adequate participants (target audience): personnel/organisations that have to be trained in a specific activity.
- d.- The adequate number of participants: all personnel involved in a specific disaster management activity must be trained.
- e.- The adequate trainers: trainers with knowledge on the subject and with training skills.
- f.- The adequate contents of the training course: participants must be trained to conduct efficiently the disaster management activity they are responsible for; the course must be adapted to a specific hazard and to the specific country's characteristics (geography, topography, population, vulnerability, economic and even religious aspects). Training courses have to be evaluated, improved and updated.
- g.- The adequate duration of the training course, depending on the disaster management activity and the course contents. Short and concise training courses are preferred.
- h.- The adequate number of courses: depending on the number of personnel that has to be trained.
- i.- The adequate frequency/timing of the training courses: this is the right number of times in a specific period that the training course has to be delivered and the right specific time of year when it has to be delivered.
- j.- The adequate outcome: this is, what do we want to have after the training course: i.e., not just trained personnel, but a revised plan, the establishment of an organisation/team or an EOC, the writing of a specific procedure, etc.
- k.- The adequate evaluation and follow-up: training courses must be evaluated and improved permanently. A close follow-up of the outcome must be given: changes in personnel/organisations, revision of procedures, change in number of shelters, etc.

In this section, then, all the information about training concerning this plan has to be recorded. The following information has to be included in Attachment 1:

1.-National Disaster Management Training Programme (or in the NEMP if so is decided)

2.- National Earthquake Training Programme

3.- Per training course delivered

Objectives

Date and venue

List of participants

Trainer(s) and qualifications

Contents of the training course (agenda)

Manuals

Description of Outcome achieved with the training course

Evaluation of the participants

Evaluation of the course by the participants

Follow-up information

Checking personnel, plans, training needs, etc.

The main responsible for training is NEMO as the coordinating organisation of the whole disaster management process; however, each organisation responsible for each function is responsible to have their personnel adequately trained to efficiently execute their own tasks as stated in the Plan and its Procedures.

26.- Simulation Exercises

Simulation exercises are exercises by which the organisations, institutions, personnel and equipment involved in a specific emergency response plan and/or emergency procedures are tested under the imaginary impact of a hazard.

Simulation exercises are one of the last steps of the disaster management process; *i.e.*, they can only be executed after having done all the previous disaster management activities: risk assessment, scenario design, planning, training, etc.

Simulation exercises consist of:

- An emergency plan and procedures for a specific hazard that are to be tested.
- Personnel of the institutions involved in response whose performance is going to be tested.
- Equipment and materials whose location, availability and working conditions are to be tested
- A particular disaster scenario. That is, what is supposedly happening.
- Logistics. All equipment and personnel needed for the adequate execution of the exercise must be in the right place at the right time, in the right order, for the right purposes.
- A theatre of operations. The place where the exercise is going to be executed (the place that is supposedly affected by the hypothetical hazard)

- Personnel to conduct and evaluate the exercise: Observers, controllers and evaluators
- A Directive. A simulation exercise directive is a document with the following information:
 - o The objectives of the exercise
 - o Place and time of the exercise
 - o The hypothetical disaster scenario
 - o The emergency plan and/or procedures that are to be tested
 - o The equipment that is going to be used
 - o The task forces/response personnel involved
 - o Names of controllers, observers and evaluators
- Simulation exercise memoir. A simulation exercise memoir is a document that contains:
 - o The simulation exercise directive
 - o The exercise evaluation. A simulation exercise is useless without an evaluation. Plan, procedures, personnel, vehicles and equipment performance must be evaluated comparing the ideal response (planning) to the one given in the exercise. Recommendations must be given in order to improve the plan and procedures; get more personnel, train better the task forces and acquire or improve the equipment.
 - o The recommendations given
 - o The description of the modifications/additions/improvement of planning and resources.

The simulation exercise memoir must be kept by the Disaster Management Organisation as a document to be studied and used for further exercises and as a historic resemblance of all simulation exercises performed and their results.

Simulation exercises can be planned and organised through time according to priorities in a National Simulation Exercise Programme that includes all the planned simulation exercises needed in a specific period.

In Attachment 2 to this plan (Simulation Exercises) all the information about simulation exercises concerning this plan has to be recorded. The National Simulation Exercise Programme and all simulation exercise memoirs must be kept there.

The main responsibility for the co-ordination and evaluation of simulation exercises lies on NEMO as the co-ordinating organisation of the whole disaster management process; however, each organisation responsible for each function is responsible for testing their own personnel, equipment, vehicles, materials and planning according to the Plan and its Procedures; *i.e.*, All organisations responsible for specific response and relief activities considered in this plan have to test their own personnel, emergency procedures, material resources and vehicles through simulation exercises they have to plan and execute.

As mentioned in Section 13 of this plan, the population at risk has to be involved in the planning, organisation, execution and evaluation of evacuation simulation exercises.

27.- Record of Real Events

The true test of an emergency plan is a real event. Personnel, other resources and planning are tested under real emergency and disaster circumstances; then, we can know if what we plan was right, if our resources were enough and the right resources, if our personnel was adequately trained, etc. Therefore, all real events have to be evaluated to see what happened and what went right and what went wrong. This is done with the purpose of improving the plan and its resources, so in the next real events the response would continuously improve. If we do not improve our planning after every real event, our planning is useless and any 'lessons learned' become only a list of errors that will certainly occur repeatedly in every real event.

In Attachment 3 the information about real events has to be recorded. At least the following information has to be included:

- Hazard characteristics
- Effects/damage/consequences
- Response given
- Evaluation of the response
- Recommendations
- Amendments to the plan/improvement of resources.

The main responsibility for keeping the records of these events lies on NEMO as the Coordinating Organisation of the whole disaster management process; however, each organisation responsible for each function is responsible for keeping their own records about real events, response given, results and lessons learned in order to improve their own procedures and the Plan.

In the case of volcanic eruptions, some of them can be just threats or small volcanic eruptions; others can be very destructive and last for years. In any case and whatever the type of volcanic eruption, disaster management organisations must keep records with the information described above. These records must be shared with other countries in the region for them to know what the lessons learned were and to improve their own plans and response if a volcanic eruption occurs.

PART V - EMERGENCY PROCEDURES

28.- Emergency Procedures

As stated in previous sections here in Part V, the emergency procedures are presented as follows:

Emergency Procedure

1. VEP-001.- Warning
2. VEP-050.- Notification
3. VEP-100.- Emergency Operations Centre (National)
4. VEP-150.- Telecommunications
5. VEP-200.- Transportation
6. VEP-250.- Evacuation
7. VEP-350.- Shelter Management
8. VEP-400.- Search and Rescue (Land)
9. VEP-401.- Search and Rescue (Marine)
10. VEP-450.- Security
11. VEP-500.- Medical Attention
12. VEP-550.- Environmental Health
13. VEP-600.- Damage Assessment and Needs Analysis
14. VEP-650.- External Assistance
15. VEP-700.- Supply Management
16. VEP-750.- Public Information
17. VEP-800.- Protection and Rehabilitation of Infrastructure
18. VEP-850.- Environmental Protection and Rehabilitation
19. VEP-900.- Reconstruction
20. VEP-950.- District Disaster Committee General Procedure (Volcanic Eruption)

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-001. Warning

Version:

Version 1. December 11th, 2002.

Objectives

To notify to all the members of the NEMO involved in the National Volcanic Eruption Response Plan about the conditions that would indicate the change in volcanic activity in the volcanic centres in Saint Lucia that would determine the activation or deactivation of this plan.

Responsible for the Procedure:

Main:

The Director of the Seismic Research Unit of the University of the West Indies.

Steps of the Procedure.

A.- The Director of the SRU shall:

Permanent:

- 1.- Conduct volcanic hazard assessment in Saint Lucia.
- 2.- Conduct continuous monitoring of volcanic activity in Saint Lucia.
- 3.- Establish mechanisms with other countries/organisations in Saint Lucia and in other countries for sharing information about volcanic activity before and during a volcanic eruption that could affect Saint Lucia.
- 4.- Work jointly with the NEMO to establish the quantitative conditions that would determine the declaration of every alert level.

In the case of the change of an alert level:

5.- Inform the NEMO immediately by phone, email and fax or any other means of communication that the conditions for a change in an alert level are present and indicate:

- i. The alert level. (green, yellow, orange, red)
- ii. The conditions that have been detected that may precede a volcanic eruption (symptoms)
- iii. The possible type of eruption (1, 2, 3 or 4)

- iv. The expected time for the eruption (months, days, hours)
- v. The area that is likely to be affected by the eruption (Hazard zones likely to be affected) that has to be evacuated.

7.- Continue monitoring volcanic activity and make recommendations to the NEMO.

8.- Provide the NEMO with information about the current and expected volcanic activity for decision-making.

Attachments:

Attachment 1: Levels of Alert.

END OF PROCEDURE.

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-050. Notification

Version:

Version 1. December 11th, 2002.

Objectives

To notify to all the members of the NEMO involved in the National Volcanic Eruption Response Plan about the threat and/or presence of a volcanic eruption and about the response measures needed to be taken.

Responsible for the Procedure:

Main:

The Director of the National Emergency Management Office.

Secondary:

- The Seismic Research Unit. UWI.
- The Cabinet Secretary.
- The Deputy Director, NEMO.
- NEMO's secretary.
- The Chairpersons of the National Disaster Committees.

Steps of the Procedure.

A.- The Director of NEMO shall:

Permanent:

- 1.- Ensure that the directories of the persons involved in the plan and in this procedure that 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 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 SRU regarding volcanic activity and possible hazards..

5.- Coordinate with the Seismic Research Unit (SRU) to establish mechanisms and means of communication of information immediately in the case of the change of an alert level.

In the case of the change of an alert level:

6.- Request/receive information from the Seismic Research Unit about the volcanic activity: Telephone: 868 662 4659; Fax 868 663 9293; e-mail uwiseismic@uwiseismic.com

7.- Notify all persons/organisations listed in Directory A attached to this procedure.

8.- Notify the members of the NEMO of the change in the alert levels and convene an immediate meeting.

9.- Request and receive initial reports about the situation.

10.- Evaluate the need to activate the EOC and consult with the Cabinet Secretary.

11.- If the EOC is to be activated, the Director will notify Teams # 1 and # 2 (Directory D) and request the attendance of the members of Team #1 to the EOC immediately.

12.- Evaluate the need for evacuation and, if necessary, start evacuating the hazard zone (s) at risk immediately.

13.- Co-ordinate the situation until change of alert level or until back to normal.

B.- The Seismic Research Unit of the University of the West Indies shall:

Permanent:

1.- Maintain contact with NEMO to provide information about volcanic activity and hazards.

2.- Conduct the monitoring of volcanic activity in Saint Lucia.

3.- Ensure that the means and mechanisms for communication with the NEMO are adequate and working correctly.

In the Case of the Change of an Alert Level:

4.- Inform the Director of NEMO according to Emergency Procedure VEP.- 001.

C.- The Cabinet Secretary shall:

Permanent:

1.- Keep an updated directory of the Permanent Secretaries of the Government Ministries (Directory B) at the office and keep one copy at home.

In the Case of the Change of an Alert Level:

- 2.- Notify the Prime Minister and the Permanent Secretaries about the volcanic activity, damage and/or response measures needed.
- 3.- 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.

D.- The Deputy Director of NEMO shall:

Permanent:

- 1.- Assist the Director to ensure that the directories of the persons involved in the plan that have to be notified are updated regularly and that a copy is kept at NEMO.
- 2.- Keep one copy of the updated directories at the office and one at home.
- 3.- Assist the Director to ensure that the members of the EOC update the directories of the personnel and organisations they have to notify at least once a year.
- 4.- Assist the Director to revise and update this procedure at least once a year and always after a simulation exercise in which it is tested and after a real event.

In the Case of the Change of an Alert Level:

- 5.- Assist the Director with the notification of information about the volcanic activity and response measures needed.
- 6.- If the EOC is activated, assist the Director to notify teams #1 and #2.
- 7.- Assist the Director to update this procedure after a real event has happened.
- 8.- If the EOC is activated, go to the EOC.

E.- NEMO's Secretary shall:

Permanent:

- 1.- Keep the directories of this procedure updated.
- 2.- Keep a copy of the directories at the office and one at home.
- 3.- Write to the entire organisations annually (March) requesting confirmation or edits to contact-persons and info.

In the Case of the Change of an Alert Level:

3.- Assist the Director and the Deputy Director to notify all the agencies and organisations mentioned in this procedure about the volcanic activity, damage and/or response measures needed.

4.- If the EOC is activated, assist the Director to notify Team # 1 and Team # 2.

5.- Make suggestions to the Director and Deputy Director of NEMO for the improvement of Directories and this procedure.

F.- The Chairpersons of all Disaster Committees shall:

Permanent:

1.- Keep an updated directory of their members at the office and one copy home.

2.- Establish roles and responsibilities for each of the Committee members

In the Case of the Change of an Alert Level:

3.- After contacting NEMO or if notified by NEMO, notify the members of the Committee (Directory C) about the situation.

4.- After receiving NEMO's notification that the EOC has to be activated due to the volcanic activity, inform the members of the Committee and go to the respective EOC.

Attachment 1: Directories

- Directory A: Persons/agencies to be notified by NEMO Director.
- Directory B: Persons to be notified by Cabinet Secretary Office.
- Directory C: Persons/organisations to be notified by Chairpersons of the National Disaster Committees.
- Directory D: Team # 1 and Team # 2. To be notified by NEMO's Deputy Director when the EOC is activated.

Attachment 2: Alert levels.

Attachment 3. Format for Notification.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-100 Emergency Operations Centre (National)

Version:

Version 1. December 11th, 2002.

Objectives

To activate, operate and deactivate the National Emergency Operations Centre (EOC), located in NEMO Headquarters Red Cross Building, Vigie, in the case of volcanic activity in Saint Lucia.

Responsible for the Procedure:

Main:

The Director of NEMO

Secondary:

- The Deputy Director of NEMO
- The Cabinet Secretary
- The Members of the EOC
- NEMO's Secretary
- The Message Receiver
- The Situation Reporter (s) per sector
- The Damage Assessment Logger

Steps of the Procedure.

A.- The Director of NEMO 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

Stationery

Maps
Situation report forms
Message forms
Emergency plan
Emergency procedures
Flip chart
Computers
Files
Directories
Food

In the Case of the Change of an Alert Level:

- 4.- Receive from the Seismic Research Unit Information about the volcanic activity.
- 5.- Request and receive initial reports about the volcanic activity and analyse the situation to determine if the EOC is to be activated.
- 6.- Consult with the Cabinet Secretary and other EOC members as necessary, about the activation of the EOC based on the reports about volcanic activity, damage and response measures needed.
- 7.- If the situation does not demand the activation of the EOC, co-ordinate the response from NEMO's office as needed.
- 8.- If the situation demands the activation of the EOC, proceed with the notification to the EOC members Team # 1 as described in the Notification Procedure (VEP-050)
- 9.- Request from the Police 4 policemen to be sent immediately to the EOC to provide security.
- 10.- Request from the Telecommunications Disaster Committee Chairperson one Amateur Radio Operator to be sent immediately to the EOC.
- 11.- Set up the EOC with the assistance of the Police members and the Radio Operator and the EOC members as they arrive.
- 12.- Receive and brief all EOC members at their arrival
- 13.- Ensure that EOC members finally set up the EOC.
- 14.- 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.
- 15.- Ensure, immediately after the EOC is activated, that the Transportation Committee provides aerial transportation for the initial damage assessment flight if needed.

16.- Receive information from the EOC members after the initial damage assessment flight.

17.- Start to receive incoming messages from the runner.

18.- Analyse and prioritise incoming messages. Give priority to those that demand a response within a specific timeframe or to those that pose an immediate danger to life and property.

19.- Revise if the messages were given to the right persons by the runner, make corrections, if necessary, and demand action from other EOC members. Always contact and inform the main responsible for the response.

21.- Read aloud all incoming messages when first read.

22.- Request information from EOC members responsible for action to be taken

23.- Be informed verbally by the organisation responsible for the response for each message.

24.- Revise continuously the incoming messages to give an adequate follow up and updating of information about actions taken.

25.- 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.

26.- After 12 hours of operation request a report from all members of the EOC once both EOC teams are present.

27.- After 12 hours of activation of the EOC hand responsibilities over the Deputy Director NEMO after briefing him.

28.- After 24 hours of EOC activation return to the EOC and be briefed by the Deputy Director.

29.- After 24 hours of EOC activation request a report from all members of the EOC once both EOC teams are present.

30.- After 24 hours, request reports from all EOC members every 12 hours with the presence of both two teams.

31.- After 24 hours of activation of the EOC, 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.

32.- 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 'Task Force' chaired by the Ministry of Planning, based in NEMO headquarters, to conduct the rehabilitation and reconstruction issues that have to be dealt with.

33.- If there is the need, participate in the creation of a Reconstruction Committee.

B.- The Deputy Director of NEMO shall:

Permanent:

1.- Be always prepared to assist the Director of NEMO in the case of a disaster and activation of the EOC

2.- Be trained to substitute for the Director of NEMO in the EOC during his/her absence.

3.- Participate in EOC simulation exercises in which his/her performance in the EOC is tested.

In the Case of the Change of an Alert Level:

4.- After the EOC has been activated, contact NEMO Director to decide whether to stay home or to go to the EOC.

5.- After every 12 hours of activation of the EOC, substitute for the Director of NEMO.

6.- Once arriving at the EOC, be briefed by NEMO's Director on the situation and pending issues.

7.- After 12 hours of being in the EOC, be substituted by NEMO Director in the EOC.

8.- Before leaving the EOC, brief NEMO's Director on the situation and pending issues.

9.- Repeat steps 5 to 8 until deactivation of EOC.

10.- Revise and update this procedure after every real event.

C.- The Cabinet Secretary shall:

Permanent:

1.- Know the National Volcanic Eruption Response Plan and its Emergency Procedures

2.- Participate in simulation exercises that test the EOC and be informed of their evaluation.

In the Case of the Change of an Alert Level:

3.- Receive information from NEMO's Director about the situation.

4.- Be consulted by the Director of NEMO about the decision of activating the EOC

5.- After the decision of activating the EOC has been taken, go to the EOC.

- 6.- When arriving at the EOC, be briefed by the EOC Director.
- 7.- Decide, depending on the situation, whether to stay in the EOC or come back 12 hours later to substitute for the Director of NEMO.
- 8.- In the EOC assist and advise the EOC chairperson in the co-ordination of the EOC.
- 9.- During NEMO's Director absence from the EOC, act as chairperson of the EOC and co-ordinate all activities therein.
- 10.- Remain in the EOC and advise the Director of NEMO in any situation that demands his/her opinion/decision or the Prime Minister's.
- 11.- Contact and consult the Prime Minister as he/she thinks fit regarding any message and situation that demands the Prime Minister's decision.
- 12.- After 24 hours of activation in the EOC return to the EOC and assist the Director of NEMO in the decision of the deactivation of the EOC.

D.- The Members of the EOC shall:

Permanent:

- 1.- Know the Saint Lucia Volcanic Eruption Response Plan and its procedures and participate in the planning process by revising and updating them regularly under NEMO's Director co-ordination.
2. - Know their role in the EOC and determine their own needs regarding equipment, materials, stationery, information and others.
- 3.- Meet regularly with the Committee members in order to improve the plan and its procedures, identify roles and assign to the Committee members responsibilities regarding preparedness and response.
- 4.- Jointly with the Committee members 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 the case of its activation.
 - Information
 - Plan and procedures
 - Formats
 - Forms

- Maps
- Stationery
- Communications equipment
- Directories
- Inventories

In the Case of the Change of an Alert Level:

6.- After the decision to activate the EOC has been taken, go to the EOC.

7.- 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.

8.- Arrive at the EOC with everything that they would need for operation:

- Information
- Plan and procedures
- Formats
- Forms
- Maps
- Stationery
- Communications equipment
- Directories
- Inventories

9.- Report to the Director of NEMO when arriving at the EOC

10.- Be briefed on the situation and pending issues

11.- Take the seat or place destined for him/her in the EOC

12.- Prepare dips (special, with boxes or with folders) for his/her incoming, pending and outgoing messages.

13.- Respond to every message that demands their attention

14.- Communicate with other members in the EOC for joint actions that have to be taken or for gathering of information.

15.- Write down in the bg sheet the action taken and return it to the chairperson only when the action is finished.

16.- Establish permanent communication with the members of their Committee/Ministry/Organisation that are taking action in sectoral EOC's, in the Ministries, in the field or in their offices.

17.- Beside returning the messages with the written action taken, read the message and the action taken aloud so the chairperson and the rest of the EOC would know about it.

18.- Present a status on the situation every 12 hours to the chairperson and to the whole EOC.

19.- In the case of a visit of the Prime Minister to the EOC, or whenever a report is requested by the Prime Minister or by the EOC chairperson, present a full situation report concerning the responsibilities of his/her Committee /Ministry/ Organisation, including, damage assessment, actions taken and results.

20.- Brief his/her substitute every time before leaving the EOC in the change of shifts.

21.- Be briefed every time arriving at the EOC.

22.- At all times, provide information and resources to the EOC members.

23.- Provide information and opinion for the decision, when needed, about the deactivation of the EOC.

24.- After the deactivation of the EOC, notify the members of his/her organisation/ Ministry/ about it.

25.- Participate as a member of the 'Task Force' if it is needed.

E.- NEMO's Secretary shall:

Permanent:

1.- Assist the Director and the Deputy Director to ensure that the EOC is kept in good condition.

2.- Assist the Director and the Deputy Director of NEMO to ensure that the EOC has all equipment, information and materials needed for its operations if it has to be activated in the case of the change of an alert level:

- Communications
- Stationery
- Maps
- Situation report forms
- Message forms
- The National Volcanic Eruption Response Plan
- VEP Emergency procedures
- Flip chart
- Computers
- Files
- Directories
- Food

In the Case of the Change of an Alert Level:

- 3- If the EOC is activated, go to the EOC.
- 4- Report in the EOC to the Director of NEMO.
- 5- Be in charge of the management of internal EOC supplies: food, stationery, photocopies, etc., and others needed by the EOC.
- 6- Provide the EOC chairperson with information needed from NEMO for the operations of the EOC: directories, files, etc.
- 7- Assist the Message Receiver (Runner) with the copying and distribution of messages to the EOC members.
- 8- Assist the EOC members with turning over the log sheets to the EOC chairperson.
- 9.- Assist the Director and Deputy Director in any other need.
- 10.- Assist the Director and the Deputy Director in the deactivation of the EOC.
- 11.- After 12 hours leave EOC and return 12 hours later.
- 12.- Co-ordinate the administrative staff when in the EOC.

F.- The Message Receiver (Runner) shall:

Permanent:

- 1.- Revise and improve this procedure and the log sheet.
- 2.- Participate in simulation exercises.

In the Case of the Change of an Alert Level:

- 3.- If the EOC has been activated, go to the EOC.
- 4.- Ensure that enough copies of the log sheet are available.
- 5.- Once in the EOC report to the Director.
- 6.- Contact the Radio Operator
- 7.- Find out about any messages that have been received in the EOC and their status.

- 8.- Be informed about every message that is received in the EOC
- 9.- Log every message received in the EOC in the log sheet form
- 10.- Give copies of the log sheet for action to be taken to:
 - Chairperson
 - Members of the EOC
 - Main EOC member responsible for action
 - Secondary EOC members responsible for action
 - Other EOC members, for their information.
 - Situation Reporter (s).
- 11.- If the message involves information about damage, always give a copy to the damage assessment chairperson and one to the damage logger.
- 12.- Shout: 'Incoming!' every time that he/she delivers a message to the EOC chairperson or to any EOC member.
- 13.- Assist the EOC chairperson to have a sequential record of all log sheets including incoming messages and action taken by EOC members.
- 14.- After the EOC is deactivated, revise the log sheets and deliver them to the chairperson.

G.- The Situation Reporter (s) shall:

Permanent:

- 1.- Revise and improve the situation report sheets for their sectors.
- 2.- Participate in simulation exercises.

In the Case of the Change of an Alert Level:

- 3.- If the EOC is activated go to the EOC.
- 4.- Once in the EOC report to the EOC chairperson.
- 5.- Ensure that the EOC has enough situation report sheets to operate.
- 6.- Assist in the EOC set up and ensure that situation report sheets are hung on the wall so everybody can see them and follow the events and actions taken.
- 7.- Prepare dips (with boxes or with folders) for incoming, pending and outgoing (or logged) messages.

8.- Ask the EOC Chairperson or a specific member of the EOC about any doubts regarding any message and/or action taken.

9.- Prepare interim reports at least every six hours or as needed by NEMO Director according to the situation.

10.- After 12 hours in the EOC leave after briefing the substitute.

11.- Return to the EOC twelve hours later.

12.- Prepare a final report and give a copy to NEMO.

H.- The Damage Assessment Logger shall:

Permanent:

1.- Revise and improve the situation report sheets.

2.- Participate in simulation exercises.

In the Case of the Change of an Alert Level:

3.- If the EOC is activated go to the EOC.

4.- Once in the EOC report to the EOC chairperson.

5.- Ensure that enough damage assessment report sheets are in the EOC.

6.- Assist in the EOC set up and ensure that damage report sheets are hung on the wall so everybody can see them and follow the events and actions taken.

7.- Prepare dips (with boxes or with folders) for incoming, pending and outgoing (or logged) messages.

8.- Work closely with the Situation Reporter and share log sheets.

9.- Ask the EOC Chairperson or a specific member of the EOC about any doubts regarding any message and/or action taken.

10.- After 12 hours in the EOC leave after briefing the substitute.

11.- Return to the EOC twelve hours later.

Attachments:

1.- Log sheet (messages)

2.- Situation report sheet (not shown)

3.- Damage assessment sheet (not shown)

END OF PROCEDURE

ATTACHMENT 1:**LOG SHEET** _____ **NUMBER** _____**INCIDENT NO.** _____**SUMMARY OF INCIDENT:** _____

NORMAL _____ **URGENT** _____ **DEADLINE** _____**RESPONSE_GIVEN** _____

TIME RECEIVED (EOC) _____**TIME OF ACTION (EOC MEMBER)** _____**COMPLETION TIME (RETURNED TO EOC CHAIRPERSON)** _____**Distribution List**

EOC Member	Primary Action	Secondary Action	Only for Information	Other
Cabinet Secretary				
EOC Chairperson (NEMO)				
Situation Reporter				
Damage Assessment Logger				
NEMO Secretary				
Radio operator				
Telecommunications Committee				
Transportation Committee				
Chief Medical Officer				
Welfare Committee				
Damage Assessment and Needs Analysis Committee.				
Supply Management Committee				
Works and Rehabilitation Committee				
Shelter Management Committee				
OPAC				
Ministry of Tourism/CMU				
Ministry of External Affairs				
Royal Saint Lucia Police Force				
Saint Lucia Fire Service				
Government Information Systems GIS				
SLASPA				
Comptroller of Customs				

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-150 Telecommunications

Version

Version 1. December 11th, 2002.

Objectives

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

Responsible for the Procedure:

Main:

The Chairperson of the Telecommunications Committee.

Secondary:

- Committee Members:
 - Police
 - Fire Service
 - Cable and Wireless
 - Amateur Radio
 - Ministry of Works
 - Citizen's Band
 - Radio Operator Emergency Response Group
- EOC members

Steps of the Procedure.

A.- The Chairperson of the Telecommunications Committee shall:

Permanent:

1.- Develop a telecommunications plan to ensure that an adequate communications system 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.- Nominate a radio operator-training officer and monitor his/her performance.
- 6.- Develop and implement a radio operator-training programme in association with the radio operator-training officer through the facilities of NEMO.
- 7.- Make annual review and revision of the radio operator-training programme.
- 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.

In the Case of the Change of an Alert Level:

- 11.- If the EOC is activated, go to the EOC.
- 12.- Be in charge of telecommunications to and from the EOC.
- 13.- Manage all emergency telecommunications.
- 14.- Liaise with the rest of the Disaster Committees and EOC members in order to respond to their needs.
- 15.- 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.
- 16.- 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).
- 17.- Assist the EOC in the rehabilitation of the telecommunications network.
- 18.- After the EOC is deactivated, prepare a report with recommendations regarding telecommunications: equipment, personnel, planning, etc.
- 19.- Revise and update this procedure.

20.- Revise and update the telecommunications plan.

B.- The Members of the Telecommunications Committee shall:

Permanent:

- 1.- Assist the Chairperson in providing material and human resources for the design and implementation of the Telecommunications Plan.
- 2.- Assist the Chairperson in providing material and human resources for training emergency responders at the national and local level in telecommunications issues.
- 3.- Assist the Chairperson in providing material and human resources for the planning, organisation and execution of the annual telecommunications exercise.

In the Case of the Change of an Alert Level:

- 4.- Provide telecommunication resources to the EOC and the NEMO for the better operation of the Plan island-wide.
- 5.- After the EOC is deactivated, prepare a final report and send it to NEMO.
- 6.- Continue providing telecommunications assistance until back to normal.

C.- The EOC Members shall:

Permanent:

- 1.- Identify their telecommunications resources.
- 2.- Identify the EOC, the NEMO and the Saint Lucia National Volcanic Eruption Response 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 Telecommunications Committee Chairperson 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.

In the Case of the Change of an Alert Level:

8.- If the EOC is activated, go 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.

9.- Offer their own telecommunications resources to the EOC and the NEMO as needed.

10.- Include in their final report recommendations for the improvement of communications and the Telecommunications Plan.

Attachments:

1.- Telecommunications Plan (Not shown. Still to be revised and updated by the Telecommunications Committee Chairperson and members)

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-200 Transportation

Version

Version 1. December 11th 2002.

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:

Chairperson of the Transportation Disaster Committee

Secondary:

- Committee members:
 - Deputy Chairperson-Air Transport
 - Representative-Ground Transport
 - Representative-Shipping
 - Coast Guard Commander or nominee
 - Chief Pilot, SLASPA
 - Representative of the Tourism Sector.

- EOC members

Steps of the Procedure.

A.- The Chairperson of the 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 District Disaster Committees and District Transportation Sub-Committees.
- 4.- Update the list of transportation resources every year.
- 5.- Submit the list of transportation resources every year to NEMO.
- 6.- Estimate the transportation resources needed for evacuation of hazard zones considering the number of people at risk.

In the Case of the Change of an Alert Level:

- 7.- If the EOC is activated, go to the EOC.
- 8.- Liaise with other EOC members in order to respond to their transportation needs.
- 9.- As soon as arriving at the EOC co-ordinate with NEMO Director in order to provide transportation to EOC members if needed.
- 10.- Provide aerial/sea transport for the initial aerial damage assessment if requested by the NEMO and if it is possible to conduct it due to the situation. Transport should be provided for 4 - 8 persons as follows in order of priority:

Group 1:

1. Prime Minister.
2. Damage Assessment and Needs Analysis Committee Chairperson.
3. Works and Rehabilitation Disaster Committee Chairperson.
4. Ministry of Agriculture representative or SRU if on island.
5. SLU-GIS representative (cameraman).

Group 2:

1. Police Commissioner.
2. Chief Medical Officer.
3. SLU-GIS representative (cameraman).
4. Crisis Management Unit.
5. Forestry Department.
6. Agriculture Department

- 11.- Ensure that a panel van and an open back van are assigned to NEMO for transportation in the case of the change of an alert level.
- 12.- Co-ordinate with NEMO and other EOC members to provide transportation of relief workers as needed.
- 13.- Coordinate with SLASPA and the Supply Management and the Shelter Management Disaster Committees Chairpersons to provide transportation for relief and rehabilitation supplies from the docks and airport to storage areas, warehouses and shelters.

- 14.- Co-ordinate with Police and the Shelter Management Committee Chairperson to provide transportation for land and sea evacuation.
- 15.- Co-ordinate with SLASPA, Police and Ministry of Tourism (CMT) to provide transportation for air/ sea evacuation out of the country if needed.
- 16.- Co-ordinate with NEMO and other EOC members for transportation of fuel to service points if needed.
- 17.- Co-ordinate with the Health and Welfare Disaster Committees' Chairpersons for the transportation of injured inside or outside the island if needed.
- 18.- Co-ordinate with the Police and the Health and the Welfare Disaster Committees' Chairpersons and funeral homes for the transportation of dead people to Hospitals according to the 'Saint Lucia Policies and Guidelines for the Adequate Management and Disposal of Dead Bodies in Disasters' (Attachment 3 to this procedure).
- 19.- Co-ordinate with the Health and the Welfare Disaster Committees' Chairpersons and with the Ministry of Agriculture to provide transportation for dead animals.
- 20.- Co-ordinate with the Works and Rehabilitation Disaster Committee Chairperson to provide transportation to assist in road clearing.
- 21.- Co-ordinate with the Chairpersons of the Disaster Committees of Works and Rehabilitation, Shelter Management and Damage Assessment and Needs Analysis and, if needed, with the Saint Lucia Solid Waste Management Authority to provide transportation for debris, and garbage collection in roads and shelters, and from collapsed buildings.
- 22.- After 12 hours in the EOC be substituted by the Deputy Chairperson. Come back to the EOC 12 hours later.
- 23.- Always brief and be briefed by the Deputy Chairperson when arriving and leaving the EOC.
- 24.- After the EOC is deactivated, prepare a report that includes situations faced, activities executed, results and recommendations and send it to NEMO.
- 25.- Provide transportation resources as needed until the situation is back to normal.
- 26.- Revise and update this procedure.

B.- The Members of the Transportation Committee shall:

Permanent:

- 1.- Assist the Chairperson in the elaboration and yearly update of the transport list by providing the number, type, capacity and location of their transport and of their available human resources (drivers, operators, pilots, etc.)
- 2.- Make a commitment to provide transportation to the Transportation Committee, the EOC and NEMO in the case of an emergency and/or a disaster, if necessary through Memoranda of Understanding always specifying the conditions under which the transportation is provided.

In the Case of the Change of an Alert Level:

- 3.- Provide transportation resources to the chairperson as requested from the EOC as needed.
- 4.- Make recommendations for the future improvement of transportation resources and mechanisms under emergencies and disasters.

C.- The EOC Members shall:

Permanent:

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

In the Case of the Change of an Alert Level:

- 3.- Provide transportation resources to the EOC, to the NEMO and to the Transportation Disaster Committee Chairperson as needed.

Attachments (Not shown)

Attachment 1.- List of transport available

Land
Sea
Air

Attachment 2.- Directory

Land transport
Sea transport
Air transport

Attachment 3.- Policies and Guidelines for the Adequate Management of Dead Bodies in Disasters in Saint Lucia.

Attachment 4.- Estimation of Transportation needed per Hazard Zone.

Attachment 5.- Evacuation Plan Hazard Zone 1

Attachment 6: Evacuation Plan Hazard Zone 2

Attachment 7: Evacuation Plan Hazard Zone 3

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-250 Evacuation

Version

Version 1. December 11th, 2002.

Objectives

To ensure that in the case of volcanic activity, the hazard zone (s) at risk are evacuated.

Responsible for the Procedure:

Main:

Commissioner of Police. Royal Saint Lucia Police Force.

Secondary:

Chief Fire Officer.

Steps of the Procedure.

A.- The Commissioner of Police shall:

Permanent:

- 1.- Establish co-ordination with NEMO and, at the local level, with the District Disaster Committees to establish and permanently improve evacuation mechanisms.
- 2.- Establish co-ordination with National Disaster Committees to ensure their assistance in the case of evacuation particularly with the Transportation Committee.
- 3.- Be provided by NEMO and the Shelter Management Committee Chairperson with the updated list of shelters every year.
- 4.- Participate with the NEMO in the design of specific evacuation plans per hazard zone (attachments 3,4 and 5 to these procedures).
- 5.-Meet with the Hospitality Industry Crisis Management Unit to agree on the mechanisms for the evacuation of visitors as considered in the Hospitality Industry Crisis Management Plan.

In the Case of the Change of an Alert Level:

- 6.- Attend the meeting called by NEMO and inform about evacuation issues.
- 7.- If the EOC is activated, go to the EOC.
- 8.- Report to the EOC Chairperson.
- 9.- Be informed by the NEMO of the need to start evacuation of specific hazard zones See attachments 3,4 and 5 to this procedure).
- 10.- Deploy police personnel and, in co-ordination with the Transportation Disaster Committee, vehicles (or boats) to co-ordinate evacuation activities.
- 11.- Request assistance from District Disaster Committees as needed in the case of evacuation.
- 12.- Request assistance from the Chairperson of the Transportation Disaster Committee to request transportation resources as needed, and as planned, to conduct the evacuation process.
- 13.- Request information and assistance from the Chairperson of the Works/Rehabilitation Committee and from SLASPA representative in the EOC regarding roads cleared and airports, seaports open.
- 14.- Request information from the Shelter Management Committee regarding shelters.
- 15.- Assist in the evacuation of specific buildings as needed: hospitals, governmental buildings and any other that is in danger due to the volcanic activity.
- 16.- In the case of evacuation of tourists/foreigners from the island, request/offer information and assistance from the Ministry of Tourism and its Crisis Management Centre and from the Ministry of External Affairs.
- 17.- After 12 hours be substituted by the Deputy Commissioner of Police.
- 18.- Return after 12 hours.
- 18.- After the EOC is deactivated, prepare a final report of the Police Force activities and send it to NEMO.
- 19.- Participate in evacuation activities until return to normalcy.
- 20.- If the conditions allow it and if it is decided by the NEMO (with information from SRU), conduct the process of returning evacuees to their homes in the hazard zones.

B- The Chief Fire Officer shall:

Permanent:

- 1.- Work jointly with the Police in the tasks regarding this procedure and the National Volcanic Eruption Response Plan.
- 2.- Know the Volcanic Eruption Response Plan, its procedures and his role in it and during an emergency or disaster, particularly his activities regarding evacuation.
- 3.- Participate in simulation exercises that test this procedure within the National Volcanic Eruption Response Plan.

In the Case of the Change of an Alert Level:

- 4.- Attend the meeting called by NEMO and inform about their resources' preparedness in the case of evacuation.
- 5.- If the EOC is activated, go to the EOC and maintain communication with the Police and work together in any evacuation issues as needed.

Attachments (Not shown)

Attachment 1.- Directory of Police and Fire Stations and resources.

Attachment 2.- Inventory of Police and Fire Service means of communications

Attachment 3.- Evacuation Plan. Hazard Zone 1

Attachment 4.- Evacuation Plan Hazard Zone 2

Attachment 5: Evacuation Plan Hazard Zone 3

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-350 Shelter Management

Version

Version 1. December 11th, 2002.

Objectives

To activate, operate and deactivate shelters in Saint Lucia in the case of evacuation and/or a disaster caused by volcanic activity.

Responsible for the Procedure:

Main:

Chairperson of the Shelter Management Disaster Committee: Chief Education Officer. Ministry of Education.

Secondary:

Deputy Chairperson. Education Officer. Ministry of Education.

Members of the Committee:

- Chairman- Chief Education Officer.
- Principals Schools
- Religions led Churches
- Managers Community Centres
- Owners Private Buildings

Steps of the Procedure.

A.- The Chairperson of the Shelter Management 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.- Ensure, jointly with NEMO, that the list of shelters is published in the Gazette annually.
- 4.- Promote and ensure that schools and other buildings designated as shelters are retrofitted when needed in order to remain secure and considered as shelters.
- 5.- 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.
- 6.- Design, and or revise and update, a map of Saint Lucia showing location of shelters all over the country to be used permanently for planning purposes and to be used in the EOC.
- 7.- Ensure that the personnel responsible for shelter activation and operations is trained in shelter management.
- 8.- Maintain permanent contact with NEMO, Police and with District Committee Chairpersons to plan the operations of shelters, particularly regarding activation after evacuation, security and deactivation.
- 9.- Maintain permanent contact with the Health, the Welfare, the Damage Assessment and Needs Analysis and the Supply Management Committees to plan the operations of shelters, particularly regarding 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 the members of the Committee 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.- Participate in the works for the revision and updating of the Emergency Housing Policy for Saint Lucia.
- 13.- Participate in the elaboration of evacuation plans for specific hazard zones particularly regarding shelters and shelter management after an evacuation and/or a disaster.

In the Case of the Change of an Alert Level:

- 14.- Attend the meeting called by NEMO and inform about shelter management issues.
- 15.- If the EOC is activated, inform all the members of the Committee.
- 16.- Prepare all the information to be brought to the EOC if it is activated (maps, forms, inventories, directories, list of shelters and personnel responsible for their activation and operations, etc.)

- 17.- Go to the EOC.
- 18.- Report to the EOC Chairperson.
- 19.- Assist in setting up the EOC
- 20.- Ensure, along with the Ministry of Works, that within 48 hours in the case of the change of an alert level of volcanic activity, all shelters in safe areas are re-certified as fit for use and submit revised list to NEMO.
- 21.- Ensure that the EOC is briefed about shelter management matters if a member of the Committee or of the Ministry of Education participated in the aerial damage assessment.
- 22.- In case evacuation of endangered/damaged areas is needed, assist the EOC by informing about shelters' availability and capacity.
- 23.- Notify immediately, directly or through the Ministry of Education, the personnel responsible for activating the shelters that they have to be activated immediately to receive population from evacuated areas.
- 24.- Co-ordinate with NEMO and the Chairperson of the Information Disaster Committee, to ensure that the District Disaster Committees 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.
- 25.- Ensure, under NEMO's co-ordination, that the Emergency Shelter Management Policy and the Emergency Housing Policy are used and implemented according to the situation. (see attachments 5 and 6 to this procedure).
- 26.- Co-ordinate with the Health and Welfare and the Supply Management Committees' Chairpersons regarding any needs in the activated shelters.
- 27.- Always inform the Damage Assessment and Needs Analysis Committee Chairperson about damage and needs in shelters.
- 28.- Co-ordinate with the Police for any security problems that may arise in the shelters.
- 29.- Co-ordinate with the Damage Assessment and Needs Analysis and the Transportation Committees' Chairpersons, the Police and NEMO in the case where already-activated shelters are in danger and have to be evacuated. Indicate possible alternate shelters and their capacity, so evacuation can be planned and conducted.
- 30.- Prepare reports at least every 12 hours and when needed in the EOC about the operation of the shelters.

- 31.- Deactivate (and activate) shelters only when it is decided with NEMO and the rest of the EOC members involved.
- 32.- After 12 hours of activation of the EOC, leave the EOC and be substituted by the Deputy Chairperson of the Shelter Committee.
- 33.- Return 12 hours later to the EOC and substitute for the Deputy Chairperson.
- 34.- Always brief and be briefed by the Deputy Chairperson of the Shelter Management Committee when arriving or leaving the EOC.
- 35.- After the EOC is deactivated, prepare a final report and send it to NEMO; participate in the 'Task Force' if needed.
- 36.- Continue co-ordinating shelter management activities until the return to normality.
- 37.- Participate, as needed, in the reconstruction process to ensure that mitigation measures are included in buildings that are considered as shelters.
- 38.- Revise and update this procedure.

B.- The Deputy Chairperson of the Shelter Management Committee shall:

Permanent:

- 1.- Assist the Chairperson in his/her tasks regarding this procedure and the National Earthquake Plan.
- 2.- Know the Volcanic Eruption Response Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his/her activities regarding shelter management.
- 3.- Participate in simulation exercises that test this procedure.

In the Case of the Change of an Alert Level:

- 4.- Attend the meeting called by NEMO and assist the main responsible for this procedure as needed.
- 5.- If the EOC is activated, maintain communication with the Chairperson and assist him/her in any shelter management matters as needed.
- 6.- Substitute for the Chairperson in the EOC every 12 hours after the EOC activation.
- 7.- Assist the Chairperson in the preparation of the Committee's reports.

Attachments (Not shown).

Attachment 1.- Directory of personnel responsible to activate and run shelters.

Attachment 2.- List of shelters including phone number, address and capacity.

Attachment 3.- Saint Lucia map showing location of shelters and capacity of each shelter.

Attachment 4.- Format for Shelter Managers.

Attachment 5.- Shelter Management Policy.

Attachment 6.- Emergency Housing Policy.

Attachment 7.- Evacuation Plan Hazard Zone 1.

Attachment 8.- Evacuation Plan Hazard Zone 2.

Attachment 9.- Evacuation Plan Hazard Zone 3.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-400 Land Search and Rescue

Version.

Version 1. December 11th , 2002.

Objectives.

To search for, and rescue, personnel and their belongings, missing, lost or affected in land due to volcanic activity.

Responsible for the Procedure.

Main:

Chief Fire Officer. Saint Lucia Fire Service.

Secondary:

Police Force Deputy Commissioner or Nominee by the Commissioner of Police.

Steps of the Procedure.

A.- The Chief Fire Officer shall:

Permanent:

1.- Formulate comprehensive search and rescue plans, training programmes and simulations to cope with:

Search and rescue of trapped persons to include:

Vehicle extraction

Rescue from collapsed buildings

High angle rescue

Rescue under toxic conditions

First aid treatment for disaster victims

Triage and hospital evacuation of victims

Incident Command System

In the Case of the Change of an Alert Level:

- 2.- Attend the meeting called by the NEMO and inform about search and rescue capacity and needs.
- 3.- If the EOC is activated, ensure that all vehicles and equipment that would be used in search and rescue operations are in good condition and ready to be used as needed.
- 4.- Go to the EOC.
- 5- Report to the EOC Chairperson.
- 6.- Be informed of the need of land search and rescue in specific areas or buildings.
- 7.- Deploy fire service personnel, equipment and vehicles to co-ordinate and execute search and rescue activities where needed.
- 8.- Provide the on-scene commander for search and rescue, and fire fighting, operations.
- 9.- Request assistance from the Chairperson of the Transportation and the Chairperson of the Works and Rehabilitation Committee when transportation, heavy equipment and/or drivers are needed to conduct the search and rescue operations.
- 10.- Co-ordinate with the Police Force and the Health and the Welfare Committees Chairpersons in search and rescue operations.
- 11.- Provide assistance, if needed, to the Police in the case of maritime search and rescue.
- 12- After 12 hours be substituted by the Deputy Chief Fire Officer.
- 13.- Return after 12 hours.
- 14.- After the EOC is deactivated, prepare a final report of the Fire Service activities and send it to NEMO.
- 15.- Continue co-ordinating land search and rescue activities as needed till the return to normality.

B.- The Deputy Commissioner of Police or Nominee by the Commissioner of Police shall:

Permanent:

- 1.- Assist the Chief Fire Officer in his tasks regarding this procedure and the National Volcanic Eruption Response Plan.

2.- Know the Volcanic Eruption Response Plan, its procedures and his role in it and during an emergency or disaster, particularly his activities and responsibilities regarding search and rescue.

3.- Participate in simulation exercises that test this procedure and/or Police Force within the National Volcanic Eruption Response 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.

In the Case of the Change of an Alert Level:

5.- Attend the meeting called by NEMO.

6.- If the EOC is activated, establish communication, directly or indirectly through the Police Commissioner in the EOC, with the Chief Fire Officer and assist him with Police resources in land search and rescue matters as needed.

Attachments. (Not shown).

Attachment 1.- Land Search and Rescue Plan.

Attachment 2.- Directory of trained personnel for land search and rescue.

Attachment 3.- Inventory of search and rescue equipment.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Plan

Emergency Procedure VEP-401 Maritime Search and Rescue

Version

Version 1. December 11th, 2002.

Objectives

To search and rescue personnel and their belongings, boats and other crafts in the sea, lost or in danger due to volcanic activity.

Responsible for the Procedure:

Main:

The Commissioner of Police. Royal Saint Lucia Police Force

Secondary:

The Commander of the Marine Police, Saint Lucia Police Force.

Steps of the Procedure.

A.- The Commissioner of Police. Royal Saint Lucia Police Force shall:

Permanent:

1.- Formulate comprehensive marine search and rescue plans, training programmes and simulations to cope with maritime search and rescue.

In the Case of the Change of Alert Level.

2.- Attend the meeting called by NEMO and discuss any maritime search and rescue matters that may arise.

3.- Alert the Police Maritime Unit and instruct them to report for duty immediately.

4.- Alert the Maritime Unit and instruct them to check all boats, vehicles and equipment that would be used in maritime search and rescue operations and ensure they are in a safe location and will be ready to be used, if needed.

- 5.- Be informed of the need of maritime search and rescue in specific areas.
- 6.- Deploy the Maritime Unit personnel, equipment and boats to co-ordinate and execute maritime search and rescue activities where needed; always request information from NEMO about the situation and the risks associated.
- 7.- Provide the on-scene commander for maritime search and rescue operations.
- 8.- Request assistance from the Chairperson of the Transportation when maritime, aerial or land transportation is needed to conduct maritime search and rescue operations.
- 9.- Co-ordinate with the Fire Service, the Chief Medical Officer and the Welfare Committee Chairperson for assistance needed during and/or after maritime search and rescue operations.
- 10.- Provide assistance, if needed, to the Fire Service in the case of land search and rescue.
- 11.- After 12 hours be substituted by the Deputy Police Commissioner.
- 12.- Return after 12 hours.
- 13.- After the EOC is deactivated, prepare a final report of the Maritime Unit search and rescue activities and send it to NEMO Director.
- 14.- Continue co-ordinating all the maritime search and rescue activities as needed until the return to normality.

B.- The Commander of the Marine Police or Nominee by the Commissioner of Police shall:

Permanent:

- 1.- Assist the Police Commissioner in his tasks regarding this procedure and the National Volcanic Eruption Response Plan.
- 2.- Know the Volcanic Eruption Response Plan, its procedures and his role in it and during an emergency or disaster, particularly his activities regarding maritime search and rescue.
- 3.- Participate in the formulation of comprehensive marine search and rescue plans, training programmes and simulations to cope with maritime search and rescue.
- 4.- Participate in simulation exercises that test this procedure and/or Police Force Maritime Unit within the National Volcanic Eruption Response Plan.

In the Case of the Change of Alert Level.

- 5.- Assist the Commissioner of Police in his duties related to this procedure.

- 6.- Alert the Maritime Unit and its resources to be ready to respond when and where needed.
- 7.- Request additional resources, if needed, from the EOC.
- 8.- After the search and rescue operations have finished, prepare a report of activities.

Attachments (Not shown)

- 1.- Directory of Police Maritime Unit and maritime search and rescue personnel
- 2.- Inventory of maritime search and rescue boats and equipment.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-450 Security

Version

Version 1. December 11th, 2002.

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 volcanic activity.

Responsible for the Procedure:

Main:

Commissioner of Police. Royal Saint Lucia Police Force

Secondary:

Deputy Commissioner of Police. Royal Saint Lucia Police Force

Steps of the Procedure.

A.- The Commissioner of Police. Of the Royal Saint Lucia Police Force shall:

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:

- EOCs
- Key governmental buildings
- Hospitals
- Affected and/or evacuated areas
- Shelters
- Airports and seaports
- Prisons

2.- Participate in the works to design specific evacuation plans for hazard zones, particularly in matters regarding security. (Attachments 2, 3 and 4 of this procedure).

In the Case of the Change of an Alert Level:

- 3.- Attend the meeting called by NEMO and discuss any matters regarding security that may arise.
- 4.- If the EOC is activated, go to the EOC with equipment and information needed.
- 5.- Report to the EOC Chairperson.
- 6.- Send four policemen, or as many as needed, to the EOC for security purposes. Change the policemen every 12 hours until the EOC is deactivated.
- 7.- Be briefed by the security personnel every 12 hours in the EOC.
- 8.- Change the security personnel in the EOC every 12 hours until the EOC deactivation.
- 9.- Be informed of the need of security in specific areas or buildings.
- 10.- Deploy police personnel and vehicles (or boats) to co-ordinate security activities.
- 11.- Deploy personnel to control traffic in critical areas where traffic is causing trouble due to the evacuation or other activities related or caused by the threat of volcanic activity.
- 12.- Request assistance from the Chairperson of the Transportation Disaster Committee when transportation and/or drivers are needed to conduct the evacuation process.
- 13.- Provide security in Shelters as needed and in co-ordination with district committees and the shelter management committee.
- 14.- Provide security in specific buildings as needed: hospitals, governmental buildings and any other that had been affected and/or whose assets are endangered.
- 15.- Provide security in airports and seaports particularly in the case of damage, evacuation and/reception of goods and supplies from overseas.
- 16.- After evacuation is done, ensure that the population is not allowed to go back to endangered or affected areas unless approved by the NEMO by advice of the SRU.
- 17.- Deploy police personnel for crowd control if needed.
- 18.- Deploy police personnel to prevent and avoid looting in specific areas as needed.

19.- 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 Transportation Committee for subsequent actions.

20.- Establish co-ordination with the CDRU, the RSS or any other military forces that arrive in the country.

21.- Deploy SSU personnel as needed, when needed for specific cases that demand the SSU attention.

22.- After 12 hours be substituted by the Deputy Commissioner of Police.

23.- Return after 12 hours.

24.- After the EOC is deactivated, prepare a report of the Police Force activities and send it to NEMO.

25.- Continue co-ordinating security activities until the return to normality.

B.- The Deputy Commissioner of the Royal Saint Lucia Police Force shall:

Permanent:

1.- Assist the Police Commissioner in his tasks regarding this procedure and the National Volcanic Eruption Response Plan.

2.- Know the Volcanic Eruption Response Plan, its procedures and his role in it and during an emergency or disaster, particularly his activities regarding security.

3.- Participate in simulation exercises that test this procedure and/or Police Force within the National Volcanic Eruption Response Plan.

In the Case of the Change of an Alert Level:

4.- If the EOC is activated, maintain communication with the Police Commissioner and assist him in any security matters as needed.

5.- Substitute for the Police Commissioner in the EOC every 12 hours after the EOC activation.

Attachments (not shown)

Attachment 1.- List of key buildings/locations likely to need security in the case of the change of an alert level.

Attachment 2.- Evacuation Plan Hazard Zone 1.

Attachment 3.- Evacuation Plan Hazard Zone 2.

Attachment 4: Evacuation Plan Hazard Zone 3.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-500 Medical Attention

Version

Version 1. December 11th, 2002.

Objectives

To provide medical services and attention for the affected population in the case of volcanic activity.

Responsible for the Procedure:

Main:

The Chief Medical Officer. Ministry of Health.

Secondary:

Medical Officer appointed by the Chief Medical Officer.

Steps of the Procedure.

A.- 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 Response Plan and this procedure and improve mechanisms for medical attention of injured personnel in disasters, particularly for volcanic eruptions.
- 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 permanent contact with NEMO, the National Disaster Committees and District Committees to strengthen co-ordination mechanisms for health emergency preparedness, emergency response and disaster relief.

10.- Identify hospitals in neighbouring countries that can provide medical assistance for injured by volcanic eruptions (e.g., burned) and establish mechanisms with the Transportation Committee to transport the injured to those other countries if needed.

In the Case of the Change of an Alert Level:

11.- Attend the meeting called by NEMO and discuss any medical attention matters that may arise.

12.- If the EOC is activated, prepare all the information needed to be brought to the EOC (the MOH Response Plan, maps, forms, inventories, directories, etc.)

13.- Go to the EOC.

14.- Report to the EOC Chairperson.

15.- Assist in setting up the EOC.

16.- Participate, if necessary, and if it is safe due to the situation, 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.

17.- Brief the EOC after the Rapid Aerial Damage Assessment if it was necessary for the CMO to fly in the reconnaissance helicopter flight.

18.- Establish contact and receive information from the MOH and hospitals and clinics to determine the damage to the health sector.

19.- Based on information provided by the MOH, hospitals and clinics, inform the Damage Assessment and Needs Analysis Committee Chairperson about the damage and needs for the Health Sector.

20.- Ensure that proper medical attention, physical and mental, is given to all the population traumatised by the impact of the volcanic eruption.

21.- 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.

22.- In the case of a mass casualty event, establish, as stated in the mass casualty plans, a mass casualty system with the participation of the Police, the Fire Service and other EOC Committees as needed.

23.- Co-ordinate with the Police for any security problems that may arise in medical facilities.

24.- In the case of international assistance needed, always inform NEMO, MOH, the Ministry of External Affairs representative in the EOC and the Chairpersons of the Committees of Damage Assessment and Needs Analysis and Supply Management.

25.- If PAHO or any other international organisations are contacted, and assistance is provided, ensure that the Ministry of External Affairs, the MOH and NEMO are always informed and contacted about PAHO assistance and the entrance into the country.

26.- Co-ordinate the activities regarding the adequate management of dead bodies according to the current Policies and Guidelines in Saint Lucia. (See attachment 5 to this procedure).

27.- After 12 hours in the EOC leave the EOC and be substituted by the Medical Officer designated.

28.- Return 12 hours later to the EOC and substitute for the Medical Officer.

29.- Always brief and be briefed by the Medical Officer when arriving and leaving the EOC after every twelve-hour shift.

30.- After the EOC is deactivated, prepare a report and send it to NEMO and participate, if needed, in the 'Task Force' that would remain in NEMO Headquarters.

31.- Continue co-ordinating medical attention activities (due to the effects of volcanic activity) until the return to normality.

32.- Revise and update this procedure.

B.- The Medical Officer appointed by the Chief Medical Officer shall:

Permanent:

1.- Assist the CMO in his/her tasks regarding this procedure and the National Volcanic Eruption Response Plan.

2.- Know the Volcanic Eruption Response Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding shelter management.

3.- Participate in simulation exercises that test this procedure.

4.- Be always a liaison between the Committee and the MOH in order to improve planning and response mechanisms and the optimisation of resources.

In the Case of the Change of an Alert Level:

5.- If the EOC is activated, maintain communication with the CMO and assist him/her in any medical attention matters and with the co-ordination of resources from the Health Sector.

6.- Substitute for the CMO in the EOC every 12 hours after the EOC is activated.

7.- Assist the Chairperson in the preparation of reports and in the revision of this procedure.

Attachments. (Not Shown)

Attachment 1.- The Ministry of Health Response Plan.

Attachment 2.- Directory of hospitals and clinics in Saint Lucia.

Attachment 3.- List of human resources in the country for medical attention (physical and mental health).

Attachment 4.- List and directory of medical attention resources in neighbouring countries that could assist in the case of injured due to volcanic eruptions.

Attachment 5.- Policies and Guidelines for the Adequate Management and Disposal of Dead Bodies in Disasters Saint Lucia .

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-550 Environmental Health

Version

Version 1. December 11th, 2002.

Objectives

To implement environmental health activities in the case of volcanic activity in Saint Lucia.

Responsible for the Procedure:

Main:

The Chief Medical Officer. Ministry of Health.

Secondary:

The Chief Environmental Health Officer. Ministry of Health.

Steps of the Procedure.

A.- 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 environmental health inspectors
- 3.- Keep an updated inventory of equipment and materials that would be used for environmental health activities in the case of volcanic activity.
- 4.- Meet regularly with the Committee members 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 volcanic activity such as: adequate quality and quantity water supply, food safety, vector control, epidemiological survey and adequate disposal of the dead (for management and disposal of dead bodies, see attachment 3 to this procedure).

6.- Maintain contact with regional and international organisations to get assistance for training on environmental health issues during and after volcanic eruptions.

7.- Maintain permanent contact with NEMO, other National Disaster Committees and District Committees to strengthen co-ordination mechanisms for the implementation of environmental health activities during and after volcanic eruptions.

8.- Prepare all the information to be brought to the EOC if it is activated (maps, forms, inventories, directories, etc.)

In the Case of the Change of an Alert Level:

9.- Attend the meeting called by NEMO and discuss any environmental health matters that may arise.

10.- If 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.

11.- Go to the EOC.

12.- Report to the EOC Chairperson.

13.- Assist in setting up the EOC

14.- Participate, if necessary, if it is safe due to the situation, and if there is enough available aerial transportation resources, in the aerial damage assessment and gather information about damage to areas where environmental health measures could be needed.

15.- Brief the EOC after the Rapid Aerial Damage Assessment.

16.- Establish contact and provide to, and receive information from the Chairperson of the Damage Assessment and Needs Analysis Committee, MOH and hospitals and clinics and from the Chief Environmental Health Officer to determine the damage and needs to the health sector and to critical infrastructure that would determine environmental health intervention (water supply, food safety, waste disposal).

17.- Maintain contact and co-ordination with NEMO, the Health Sector, the District Committees and the rest of the EOC members to determine areas where environmental health action has to be taken.

18.- Ensure the adequate quality and quantity of water supply is provided to the population. Co-ordinate with the Members of the EOC and PEOC as needed.

- 19.- 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 PEOC as needed.
- 20.- Ensure that the garbage and debris collection and disposal is not interrupted by the authorities (Saint Lucia Solid Waste Management Authority) and that it is increased and focused on critical areas: shelters, roads, ports of entry, etc). Co-ordinate with the rest of the members of the EOC, the PEOC and others as needed.
- 21.- Ensure that vector control activities (mosquitoes, rodents and others) is done in areas where needed. Co-ordinate with the rest of the members of the EOC and the PEOC as needed.
- 22.- Establish/increase epidemiological surveillance activities, particularly in shelters and other places with large concentrations of displaced population. Co-ordinate with the rest of the members of the EOC and the PEOC as needed.
- 23.- Co-ordinate with the rest of the members of the EOC and the PEOC as needed, particularly with Police, Transportation Committee and Information Committee for the adequate handling (sanitary) of dead bodies (collection, storage, transportation, identification, delivery to next of kin and final disposal) according to the Policies and Guidelines for the Adequate Management of Dead Bodies in Saint Lucia (See attachment 3 to this procedure).
- 24.- Co-ordinate with the NEMO and the Information Committee to ensure that adequate and veracious information regarding dead bodies is disseminated in order to avoid false rumours about epidemics.
- 25.- Co-ordinate with the NEMO and the Information Committee to ensure that adequate and veracious information regarding protection to health due to the inhalation of ashes and gases emitted by the volcanic activity.
- 26.- At all times consult with the Chief Environmental Health Officer MOH as needed.
- 27.- In the case of international assistance needed, always inform NEMO, MOH, the Ministry of External Affairs representative in the EOC and the Chairpersons of the Committees of Damage Assessment and Needs Analysis and Supply Management.
- 28.- If PAHO or any other international organisations are contacted, and assistance is provided, ensure that the Ministry for External Affairs, the MOH and NEMO are always contacted and informed about PAHO 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.)
- 29.- After 12 hours in the EOC leave the EOC and be substituted by the Medical Officer designated.
- 30.- Return 12 hours later to the EOC and substitute the designated Medical Officer in the EOC.

31.- Always brief and be briefed by the Medical Officer designated when arriving or leaving the EOC after every twelve-hour shift.

32.- After the EOC is deactivated, prepare a final report and send it to NEMO and participate, if needed, in the 'Task Force'.

33.- Continue to co-ordinate emergency/disaster environmental health activities until the situation is back to normal.

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

35.- Revise and update this procedure.

B.- The Chief Environmental Health Officer shall:

Permanent:

1.- Assist the CMO in his tasks regarding this procedure and the National Volcanic Eruption Response Plan.

2.- Know the Volcanic Eruption Response Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding environmental health.

3.- Participate in simulation exercises that test this procedure.

4.- Ensure that training is provided to environmental health officers and that materials and equipment are in good working condition.

In the Case of the Change of an Alert Level:

5.- Attend the meeting called by NEMO.

6.- If the EOC is activated, maintain communication with the CMO and assist him/her in any environmental health.

7.- Co-ordinate the environmental health flow of information, and the response, from the Health Sector always in co-ordination with the CMO in the EOC.

8.- Request information or resources to the CMO in the EOC as needed for the better implementation of environmental health measures during and after a volcanic eruption.

9.- Prepare reports as needed from the EOC including a final report with recommendations to follow even if the EOC is deactivated.

Attachments (Not shown)

- 1.- Directory of environmental health inspectors/officers.
- 2.- Inventory of resources for environmental health activities in Saint Lucia.
- 3.- Policies and Guidelines for the Adequate Management of Dead Bodies in Disasters in Saint Lucia.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-600 Damage Assessment and Needs Analysis

Version

Version 1. December 11th, 2002.

Objectives

To assess damage in Saint Lucia in the case of volcanic activity in Saint Lucia 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:

Chairperson of the Damage Assessment and Needs Analysis Disaster Committee.

Secondary:

Deputy Chairperson Damage Assessment and Needs Analysis Disaster Committee.

Steps of the Procedure.

A.- The Chairperson of 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 damage assessment teams' members.

3.- Meet regularly with the Committee members to improve this procedure and improve mechanisms for damage assessment:

- Rep. Department of Statistics
- Rep Banana companies/WIBDECO
- Chamber of Commerce.
- Ministry of Works.
- Ministry of Health.
- Ministry of Education.

Cable and Wireless, Digicel, AT & T.
WASCO.
LUCELEC.
Construction and Engineering Associations, Architects and Quantity Surveyors.
Rep Agriculture Department.
Rep Forestry Department.
Rep Fisheries Department.
Saint Lucia National Trust.
Folk Research Centre.
National Archives.
Saint Lucia Red Cross Society.

4.- Maintain permanent contact with NEMO, other National Disaster Committees and District Committees to strengthen co-ordination mechanisms for damage assessment.

5.- Identify key vulnerable elements that could be damaged in the case of volcanic activity.

In the Case of the Change of an Alert Level:

6- Attend the meeting called by NEMO and discuss any damage assessment issues that may arise.

7.- If the EOC is activated, inform all the members of the Committee and prepare all the information to be brought to the EOC (maps, damage assessment evaluation forms, directories, etc.)

8.- Go to the EOC.

9.- Report to the EOC Chairperson.

10.- Assist in setting up the EOC.

11.- Participate, if it is needed and if it is safe, in the Initial Aerial Damage Assessment to gather information about area damages due to the volcanic activity.

12.- Brief the EOC after the Initial Aerial Damage Assessment in order to know the situation and establish priorities.

13.- Dispatch damage assessment teams to assess specific damage in priority areas if it is necessary and if it is safe.

14.- Request information from the private sector (LUCELEC, WASCO and Cable and Wireless), via PEOC, about damage to utilities: water supply (intakes, pipes, tanks) and sewage systems, Roseau dam, telephone poles and lines.

- 15.- Request information from the Works/Rehabilitation Disaster Committee Chairperson about damage to roads and bridges.
- 16.- Request information from the Ministry of Agriculture about damage to crops, fisheries and livestock.
- 17.- Request information from the Health and Welfare Disaster Committees' Chairpersons about damage to the health sector (hospitals, clinics, equipment, medicines) and needs for medical attention, environmental health and mental health.
- 18.- Request information from SLASPA about damage assessment to air and seaports.
- 19.- Request information from the Tourism Sector about damage to buildings and infrastructure and from the cultural sector (Saint Lucia National Trust, Archaeological and Historic Society, Folk Research Centre, National Archives), and Ministry of the Environment when protocols are in place.
- 20.- Request from the rest of the EOC members and the District Disaster Committees information about damage and needs assessment.
- 21.- Prepare a damage assessment report every 12 hours or earlier if needed for the EOC or the Prime Minister.
- 22.- Assist the Chairperson of the Supply Management Disaster Committee, the EOC Chairperson and NEMO in writing the needs list for Saint Lucia.
- 23.- After 12 hours in the EOC leave the EOC and be substituted by the Deputy Chairperson of the Committee.
- 24.- Return 12 hours later to the EOC and substitute for the Deputy Chairperson.
- 25.- Always brief and be briefed by the Deputy Chairperson when arriving or leaving the EOC in every 12-hour shift.
- 26.- After the EOC is deactivated, prepare a report and send it to NEMO and participate, if needed, in the rehabilitation/reconstruction 'Task Force' that would remain in NEMO Headquarters.
- 27.- Continue co-ordinating damage and needs analysis activities until the situation is back to normal.
- 28.- Participate, as needed, in the reconstruction process.
- 29.- Revise and update this procedure.

B.- The Deputy Chairperson of the Committee shall:

Permanent:

- 1.- Assist the Chairperson in his tasks regarding this procedure and the National Volcanic Eruption Response Plan.
- 2.- Know the Volcanic Eruption Response Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding damage assessment.
- 3.- Participate in simulation exercises that test this procedure.

In the Case of the Change of an Alert Level:

- 4.- If the EOC is activated, maintain communication with the Chairperson and assist him/her in any medical attention matters.
- 5.- After 12 hours of activation of the EOC substitute for the Chairperson in the EOC.
- 6.- Be substituted every 12 hours by the Chairperson.
- 7.- Assist the Chairperson in the preparation of the final damage assessment report.

Attachments (Not shown).

Attachment 1.- Directory of damage assessment teams.

Attachment 2.- Damage assessment evaluation forms.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-650 External Assistance

Version

Version 1. December 11th, 2002.

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 an emergency or a disaster in the country caused by volcanic activity.

Responsible for the Procedure:

Main:

Permanent Secretary. Ministry for External Affairs.

Secondary:

Deputy Permanent Secretary. Ministry for External Affairs.

Steps of the Procedure.

A.- The Permanent Secretary of 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 External Ministries 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 permanent contact with NEMO, other National Disaster Committees and District Disaster Committees to strengthen co-ordination mechanisms for international assistance.

6.- Define with NEMO and the Disaster Committees' Chairpersons of Damage Assessment and Needs Analysis, Supply Management and Information, the mechanisms for information to the 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 NEOC members know that the Ministry for 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 due to a volcanic eruption.

9.- Ensure that all the NEOC members know that they have to inform the Ministry for External Affairs in the NEOC about any issue or communications regarding the offer, request and receipt of external assistance.

10.- Determine the chairperson, members, location, means of communications and other equipment and materials for the International Emergency Operations Centre in Saint Lucia (IEOC), that will be in charge of the attention of all representatives and members of external regional, sub-regional and international organisations that are, or arrive in the country for the purposes of offering or bringing international assistance in the case of an emergency or a disaster in Saint Lucia due to volcanic eruptions.

11.- Designate and inform NEMO of the liaison to the NEOC

In the Case of the Change of an Alert Level:

12.- Attend the meeting called by NEMO and discuss any External Affairs issues that may arise.

13.- If the NEOC is activated, determine, jointly with NEMO and with the rest of the NEOC members, if the IEOC has to be activated.

14.- If the IEOC is activated ensure it contacts the External Embassies and regional, sub-regional and international organisations in the country to inform them about the situation and to remind them about the measures for the protection of their personnel and their property and the mechanisms for the offer, request and receipt of international assistance. They have to be informed as well that the Ministry for External Affairs is the Ministry that will deal with them regarding information about the disaster and about foreign citizens in the country in a disaster after a volcanic eruption.

15.- If the NEOC is activated, go to the NEOC.

16.- Report to the NEOC Chairperson. Inform him/her about the activation of the IEOC

17.- Assist in setting up the NEOC. Ensure that there is communication between the NEOC and the IEOC.

18.- Assist the NEOC Chairperson and members in any issue that involves external issues.

19.- When applicable under the recommendations of the NEMO, follow PAHO's draft document "Role of Foreign Affairs in Disasters". (See attachment 4 to this procedure)

20.- In the case of death of foreign citizens, follow the Policies and Guidelines for the Adequate Management of Dead Bodies in Disasters in Saint Lucia" (See attachment 5 to this procedure).

21.- For Donations and Importation of Relief Supplies, follow the "Policy for Donations and Importations of Relief Supplies" (Attachment 6 to this procedure).

22.- Maintain contact with the Chairperson of the Damage Assessment and Needs Analysis Committee to be informed about the damage assessment situation.

23.- Jointly with NEMO, the Chairpersons of the Committees of Damage Assessment and Needs Analysis and Supply Management and other NEOC 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.

24.- Jointly with NEMO, the Chairperson of the Information Committee and other NEOC 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.

25.- 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.

26.- Maintain permanent contact with the IEOC and ensure that any international organisations arriving go and stay in the IEOC. Be informed about their purpose and inform the NEOC.

27.- Be informed by the Supply Management Committee Chairperson and by the IEOC about any international assistance that arrives in the country. Always inform the NEOC Chairperson and the NEOC members.

28.- Ensure, along with NEMO and the Supply Management Committee Chairperson, that a follow up is given to the needs list and to the official request for international assistance.

29.- Ensure, along with NEMO, the Comptroller of Customs, the Supply Management Committee Chairperson, the Police and SLASPA, that no un-requested supplies are received and accepted into the country. Ensure that they are not received and taken back by the country or organisation that intended to bring them into the country.

30.- After 12 hours in the NEOC leave the NEOC and be substituted by the Deputy Chairperson of the Committee.

31.- Return 12 hours later to the NEOC and substitute the Deputy Chairperson.

32.- Always brief and be briefed by the Deputy Chairperson when arriving or leaving the NEOC in every 12-hour shift.

33.- Ensure that the IEOC has 12-hour shifts for its chairpersons and members.

34.- Always brief and be briefed by the chairperson in the IEOC before each shift.

35.- After the NEOC is deactivated, prepare a report including activities of the IEOC and send it to NEMO and participate, if needed, in the rehabilitation/reconstruction 'Task Force' that would remain in NEMO Headquarters.

36.- Continue co-ordinating external affairs activities until the situation is back to normal.

37.- 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.

38.- Revise and update this procedure.

B.- The Deputy Permanent Secretary of the Ministry of External Affairs shall:

Permanent:

1.- Assist the Chairperson in his tasks regarding this procedure and the National Volcanic Eruption Response Plan.

2.- Know the Volcanic Eruption Response 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.

In the Case of the Change of an Alert Level:

4.- if the NEOC is activated, maintain communication with the Chairperson and assist him/her in any matters related to external affairs.

5.- After 12 hours of activation of the NEOC substitute for the Chairperson in the NEOC.

6.- Be substituted every 12 hours by the Chairperson.

7.- Assist the Chairperson in the preparation of reports.

Attachments (Not shown)

Attachment 1.- Directory of sub-regional, regional and international organisations and agencies, involved in disaster response and relief.

Attachment 2.- Directory of Embassies and regional, sub-regional and international organisations and companies that have foreign personnel working and living in Saint Lucia.

Attachment 3.- Description, location, means of communications and other equipment and materials, names of chairperson and members of the International Emergency Operations Centre in Saint Lucia (IEOC.)

Attachment 4.- Draft “Role of Foreign Affairs in Disasters” PAHO.

Attachment 5.- Policies and Guidelines for the Adequate Management and Disposal of Dead Bodies in Disasters in Saint Lucia.

Attachment 6.- Policy for Donations and Importation of Relief Supplies in Saint Lucia in the case of a Disaster.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-700 Supply Management

Version

Version 1. December 11th, 2002.

Objectives

To manage (receipt, storage, sort, transport and distribution) relief supplies (national and foreign) during and after an emergency and/or a disaster caused by volcanic eruptions in Saint Lucia (Food, clothes, building materials, etc)

Responsible for the Procedure:

Main:

Chairperson of the Supply Management Disaster Committee.

Secondary:

- Deputy Chairperson: Representative of Social Groups
- Committee Members:
 - Deputy Chairperson: Representative of Social Groups
 - Saint Lucia Rotary Clubs
 - Saint Lucia Red Cross
 - Kiwanis Club
 - Toast Masters Club
 - Lion's Club
 - Adventist Development and Relief Agency
 - CARITAS Antilles
 - Salvation Army
 - Saint Lucia Boys Scouts
 - Saint Lucia Girl Guides
 - Saint Lucia Cadet Corps
 - Supplies Officer, Ministry of Trade
 - Customs and Excise Department
 - WASCO
 - Rep- Ministry of Local Government
 - Chamber of Commerce
 - Tourism Sector
 - Rotarak Club
 - Leo Clubs
 - Food companies

- NEOC members

Steps of the Procedure.

A.- The Chairperson of the Committee shall:

Permanent:

- 1.- Meet regularly with all the members to:
 - Assign roles and responsibilities and identify activities regarding supplies and supply management.
 - Identify possible needs for the population after a disaster.
 - Identify sources of supplies and suppliers (national [governmental and private for food and water], regional [CDEMA, ECDG] and international [PAHO, Red Cross, ADRA, etc.]
 - 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 Damage Assessment and Needs Analysis Committee to establish mechanisms for the determination of needs in the case of a disaster.
- 3.- Co-ordinate with NEMO and the Ministry for 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/RSTS 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 the members of the committee, 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 with a copy of the directory every year.
- 7.- To conduct an annual audit of the District Committee resources and to provide a written report to the Director of NEMO by May 31st each year.
- 8.- Ensure the Red Cross maintains the mechanisms for the relief supply for the first 72 hours after the disaster.

In the Case of the Change of an Alert Level:

- 9.- Attend the meeting called by NEMO and discuss any supply management issues that may arise.

- 10.- If the NEOC is activated, go to the NEOC.
- 11.- Assist in setting up the NEOC.
- 12.- Maintain contact with the Committee members and with the Private Sector NEOC.
- 13.- Establish permanent communication with the Chairperson of the Damage Assessment Committee to determine the needs of the country based on the assessment of damage to identify specific needs in specific areas.
- 14.- Establish permanent communication with the Chairperson of the Shelter Management Committee to identify needs in shelters and with District Committees to find out their needs.
- 15.- 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.
- 16.- In contact with the National Committees' members the District Committees and with the NEOC members, manage the distribution of supplies where they are needed.
- 17.- If transportation is required for the management of supplies, request the assistance of the Transportation Committee Chairperson.
- 18.- Consult with the NEOC Chairperson and with the rest of the NEOC members about the needs list and prepare the final version to be distributed to NEMO Director, the Permanent Secretary of the Prime Minister's Office, the Prime Minister and the Ministry for Foreign Affairs
- 19.- Depending on the needs that are to be requested and received from regional and international sources, decide, after consultation with the NEOC, if the SUMA team is to be activated or if a SUMA team would be needed from PAHO.
- 20.- After the first 72 hours after the disaster relieve the Red Cross and ensure that disaster relief continues being provided by the Committee.
- 21.- Regarding donations and importation of relief supplies, always follow the Saint Lucia Policy on Donations and Importations of Relief Supplies (see attachment 3 to this procedure).
- 22.- Prepare a report after the NEOC has been deactivated.
- 23.- Continue co-ordinating supply management activities until the situation is back to normal.

B.- The Deputy Chairperson of the Committee shall:

Permanent:

- 1.- Assist the Chairperson in all his/her tasks before, during and after volcanic eruptions in Saint Lucia.

2.- Participate in the Committee meetings.

3.- Assist the Chairperson with the follow up of the members' activities for the identification and implementation of mechanisms for the management of supplies during disasters particularly in the case of volcanic eruptions.

4.- Assist the Chairperson in all Committee activities.

In the Case of the Change of an Alert Level:

5.- Attend the meeting called by NEMO.

6.- Assist the Chairperson in the co-ordination of the members of the committee in the management of supplies after a disaster.

7.- Assist the Chairperson in the preparation of the final report regarding supply management.

C.- Members of the Committee.

Permanent:

1.- Meet regularly within the Committee to:

- Assign roles and responsibilities and identify activities regarding supplies and supply management.
- Identify possible needs for the population after a disaster, particularly in the case of volcanic eruptions.
- Identify sources of supplies and suppliers (national [governmental and private for food and water], regional [CDEMA, ECDG] and international [PAHO, Red Cross, CARITAS, ADRA, etc.]
- Establish and agree on communications and co-ordination mechanisms for supply management and donations in the case of a disaster caused by volcanic eruptions.
- Offer the Committee and the Chairperson their own resources in the case of a disaster caused by a volcanic eruption (manpower, food, water, etc.)
- Sign MOUs with ship-owners (Food, gas, etc.)

In the Case of the Change of an Alert Level:

2.- If the NEOC and the PEOC are activated, send representative, when applicable, to the PEOC.

3.- Maintain communications with the PEOC and from it to the National NEOC.

4.-Provide supplies wherever they are needed and as requested from the PEOC and the NEOC.

5.- Inform the PEOC and the NEOC about any problems needed for the delivery of supplies (transportation, drivers, personnel, roads blocked, etc.) so they can be solved by the PEOC and/or the NEOC.

C.- NEOC Members.

After the Impact:

1.- Provide information to the Chairperson of the Supply Management Committee regarding needs. At all times indicate type of supplies, location where needed and amount needed.

Attachments (Not shown).

Attachment 1.- Directory of Committee Members and List of Resources Committed by Members

Attachment 2.- Directory of Regional and International Organisations and type of assistance they provide in disasters.

Attachment 3.- Donations and Importation of Relief Supplies Policy.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-750 Public Information

Version

Version 1. December 11th, 2002.

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 PM or any other governmental official authorised to do so, to report about volcanic eruptions 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:

The Director of Information Services. The Government Information Service.

Secondary:

The Principal Information Officer. The Government Information Service.

Steps of the Procedure.

A.- The Director of Information Services 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 volcanic eruptions 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 permanently, with NEMO and the Media, mechanisms for the dissemination of governmental information in the case of emergency and disasters caused by volcanic eruptions.

In the Case of the Change of an Alert Level:

5.- Attend the meeting called by NEMO and discuss any public information matters that may arise.

6.-If the EOC is activated, go to the EOC.

7.- Report to the EOC Chairperson.

8.- Assist in setting up the EOC.

9.- Ensure that there is communication between the EOC and the Media. Check the emergency broadcast system: check the emergency telephone hotlines.

10.- Ensure that the re-certified shelters list is given blanket coverage in the media.

11.- Prepare an immediate report about the situation with information provided by the SRU to NEMO and the initial damage reports as well as information to the public to avoid rumours and protect their lives and property.

12.- Immediately after the initial assessment team (NEMO, Damage Assessment and Works Committees) 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.

13.- With information from NEMO, the Damage Assessment Committee, the Supply Management Committee and the rest of the EOC members as needed, prepare and update a report every 6 hours after the initial report for the media.

14.- Maintain permanent contact with the members of the media. Request updated information from the EOC Chairperson, NEMO and the rest of the EOC members as needed.

15.- Request specific information from the Police regarding evacuation and security.

16.- Request specific information from the CMO regarding measures for the population to protect health in the case of emissions of gases, ashes and in the case of water contamination.

17.- Request specific information from the Shelter Management Committee regarding shelters activated and their operation.

18.- Get the approval and consensus of the EOC before the broadcast of every six-hour report and before sending the PM's address to the Nation.

- 19.- Prepare the text of the Prime Minister's Address to the Nation when requested by the EOC.
- 20.- Inform the EOC about any special request of information from the media or the PM.
- 21.- After 12 hours in the EOC leave the EOC and be substituted by the Deputy Chairperson of the Information Committee.
- 22.- Return 12 hours later to the EOC and substitute for the Deputy Chairperson.
- 23.- Consult on press releases of the Ministry for External Affairs/IEOC and the Ministry of Tourism/CMC.
- 24.- Always brief and be briefed by the Deputy Chairperson when arriving or leaving the EOC in every 12-hour shift.
- 25.- After the EOC is deactivated, prepare a report to be disseminated. Send a copy to NEMO to be included in the Plan.
- 26.- Continue the co-ordination of public information activities until the situation is back to normal.
- 27.- Revise and update this procedure.

B.- The Principal Information Officer shall:

Permanent:

- 1.- Assist the Chairperson in his tasks regarding this procedure and the National Volcanic Eruption Response Plan.
- 2.- Know the Volcanic Eruption Response 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.

In the Case of the Change of an Alert Level

- 4.- If the EOC is activated, assist the Chairperson in any public information matters.
- 5.- After 12 hours of activation of the EOC substitute for the Chairperson in the EOC.
- 6.- Be substituted every 12 hours by the Chairperson.
- 7.- Assist the Chairperson in the preparation of the reports.

Attachments (Not shown.)

Attachment 1.- Directory of Radio Stations, TV stations and Newspapers; contact persons, phone numbers, addresses and emergency numbers in Saint Lucia.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

**Emergency Procedure VEP-800 Protection and Rehabilitation of
Infrastructure**

Version

Version 1. December 11th, 2002.

Objectives

To assess and repair damage to terrestrial communications and public utilities in the case of volcanic eruptions in Saint Lucia.

Responsible for the Procedure:

Main:

The Permanent Secretary of the Ministry of Works.

Secondary:

- Committee Members:
 - Permanent Secretary Planning
 - Local Council-Clerks
 - Planning Officer Ministry of Health
 - Director Community Services and Local Government
 - Executive Director Saint Lucia Hotel & Tourism Association
 - Private sector
 - WASCO
 - LUCELEC
 - Telecom Companies.
- EOC members

Steps of the Procedure.

A.- The Permanent Secretary of 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 WASCO, LUCELEC, Telecom 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 Damage Assessment and Needs Analysis Disaster Committee for the preparation of information about damage assessment to roads and bridges and forward to the NEOC for the damage assessment and needs analysis.

In the Case of the Change of an Alert Level:

- 9.- Attend the meeting called by NEMO and discuss any matters regarding rehabilitation of services and public utilities that may arise.
- 10.- Hold a meeting with the Ministry personnel (including damage assessment teams) that would be in the MOW-EOC and the personnel who would be in the PEOC. Brief them about the situation and ask them to be ready to respond once the order to activate the MOW-EOC and the PEOC is given.
- 11.- Depending on the situation, make the decision to activate the MOW-EOC.
- 12.- Depending on the situation and if the PSEOC is activated, send liaison to the PEOC.
- 13.- If the NEOC is activated, send liaison to the NEOC.
- 14.- Once in the NEOC, test the communications equipment from NEOC to MOW-EOC and to PEOC.
- 15.- Assist in setting up the NEOC.
- 16.- Conduct a re-certification of the shelters and jointly with the Shelter Management Committee ensure that the re-certified list is given to NEMO for dissemination through the media in 48 hours after the change in alert level.
- 17.- Participate, if necessary and if it is safe, in the initial aerial damage assessment and gather information about damage to roads and bridges and to public utilities.
- 18.- Brief the NEOC after the initial aerial damage assessment.

- 19.- Establish co-ordination with the Chairperson of the Damage Assessment and Needs Analysis Disaster Committee for the assessment of damage.
- 20.- Establish co-ordination with the Chairperson of the Transportation Disaster Committee for the deployment of heavy equipment when needed.
- 21.- Establish co-ordination with the SLASPA representative in the NEOC for the assessment and prompt rehabilitation of air and seaports.
- 22.- Inform the MOW-EOC about the initial assessment.
- 23.- Inform the PEOC about the initial assessment.
- 24.- Ensure the prompt reopening of main roads and airports, giving special attention to damage and accumulation of ashes.
- 25.- Ensure the prompt restoration of main public utilities.
- 26.- Assist District Committees in their emergency work.
- 27.- Gather information from the MOW EOC, the PEOC and the field teams and prepare reports at least every 12 hours and when needed in the NEOC.
- 28.- At all times, provide information to the Damage Assessment and Needs Analysis Disaster Committee Chairperson.
- 29.- After the NEOC is deactivated, prepare a report and send it to NEMO and participate, as needed, in the rehabilitation/reconstruction 'Task Force' that would remain in NEMO Headquarters.
- 30.- Co-ordinate the rehabilitation of services and public utilities until the situation is back to normal.
- 31.- Participate in the Reconstruction Committee until final reconstruction of overall damage.
- 32.- Ensure that mitigation measures are included in the rehabilitation/reconstruction process

B.- The Members of the Committee shall:

Permanent:

- 1.- Assist the Chairperson in the preparation of inventories, directories, memoranda of understanding, assessment teams and NEOC information.

In the Case of the Change of an Alert Level:

2.- If the MOW-EOC and the PEOC are activated, go to the MOW-EOC or to the PEOC according to the Ministry of Works Plan.

3.- Assist the Chairperson at the EOCs (NEOC, PEOC and MOW-EOC) at all times by providing information about the status of terrestrial communications, ports and public utilities.

4.- Prepare reports once the NEOC and MOW-EOC are deactivated and send it to the Chairperson of the Committee.

C.- The EOC Members shall:

In the Case of the Change of an Alert Level:

1.- If the NEOC is activated, establish communication and coordination with the Chairperson, request/provide information to the chairperson as needed about air and seaports, roads and bridges as needed.

Attachments (Not shown).

Attachment 1.- Inventory of light and heavy equipment.

Attachment 2.- List of damage assessment teams.

Attachment 3.- Directories
MOW EOC
PEOC

Attachment 4: Emergency Housing Policy.

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-850 Environmental Protection and Rehabilitation

Version

Version 1. December 11th, 2002.

Objectives

To protect the environment and archaeological and historical sites in the case of volcanic activity Saint Lucia and to rehabilitate the environment damaged or altered by the volcanic eruption.

Responsible for the Procedure:

Main:

The Permanent Secretary, Ministry of the Environment.

Secondary:

Deputy Chairperson (to be nominated by the PS Ministry of Physical Development).

Saint Lucia Solid Waste Management Authority.

Rep-OECS / Environment and Sustainable Development Unit.

The Caribbean Environmental Health Institute (CEHI).

Rep- Department of Agriculture.

Rep- Department of Fisheries.

Rep- Department of Forestry.

Rep- Department of Sustainable Development.

Rep- The National Trust.

Rep- The National Conservation Authority.

Rep- Centre for Environmental Health Institute.

Rep Archaeological and Historical Society.

Steps of the Procedure.

A.- The Permanent Secretary, Ministry of the 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 National Committees to identify environmental impacts after disasters, possible solutions and resources needed for mitigation and restoration measures.

3.- Maintain regular contact with NEMO and with the Public Information Disaster Committee in order to determine and recommend environmental protection measures in the case of volcanic activity 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 in the case of volcanic activity 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. particularly in the hazard zones.

5.- Meet with the Damage and Needs Analysis Disaster Committee to establish mechanisms for the flow of information about the assessment of damage to the environment in order to inform the Chairperson of the Committee within 44 hours.

In the Case of the Change of an Alert Level:

6.- Attend the meeting called by NEMO and discuss any environmental protection issues that may arise.

7.- If the EOC is activated, go to the EOC.

8.-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.

9.- Ensure that garbage and debris generated by the volcanic eruption, particularly ashes, are collected from roads, ports, shelters, and other key locations and from buildings according to priorities set by the EOC and according to resources available.

10.- Submit a report of damage to the NEOC (to be provided to the DANA Disaster Committee) before 44 hours after the change of alert level.

11.- Always request assistance and/or action to the EOC when needed.

12.- After the EOC is deactivated prepare a report and send a copy to NEMO

13.- Participate in the 'Task Force' and Reconstruction Committee as needed.

14- Co-ordinate the activities for environmental rehabilitation until the situation is back to normal.

15- Revise and update this procedure after the event.

B.- The Nominee of the Permanent Secretary from the Ministry of the Environment shall:

Permanent:

1.- Assist the PS, Ministry of the Environment in his/her tasks regarding this procedure and the National Volcanic Eruption Response Plan.

2.- Know the Volcanic Eruption Response Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his/her activities regarding the protection and/or restoration of the environment during and after a volcanic eruption.

3.- Participate in simulation exercises that test this procedure.

In the Case of the Change of an Alert Level:

4.- If the EOC is activated, maintain communication with the PS of the Ministry of the Environment and assist him/her in any environmental protection and restoration matters.

5- Assist the PS of the Ministry of the Environment in environmental damage assessment and in identifying environmental protection activities and agencies responsible for them and in implementing activities and deploying resources when applicable and when needed.

6.- Assist in the co-ordination of agencies related to environmental protection for the protection and rehabilitation of the environment.

7- Substitute for the PS of the Ministry of the Environment in the EOC every 12 hours.

8.- Assist the PS of the Ministry of the Environment in the preparation of the reports regarding the environmental impact and protection and remediation activities.

9.- Participate, if needed, in the 'Task Force' or in the Reconstruction Committee, to ensure that any environment damage is mitigated.

Attachments: (Not shown)

Attachment 1: Draft OECS Rapid Damage Assessment and Needs Analysis Methodology

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

Emergency Procedure VEP-900 Reconstruction

Version

Version 1. December 11th, 2002.

Objectives

To reconstruct infrastructure and the environment to recover from the impact of a volcanic eruption 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:

The Prime Minister of Saint Lucia.

Secondary:

Deputy Prime Minister or Nominee.

Steps of the Procedure:

A.- The Prime Minister of Saint Lucia shall:

Permanent

1.- Establish a contingency fund should it be 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.

In the Case of the Change of an Alert Level:

2.- Establish a 'Task Force' after the EOC is deactivated for the purposes of the continuation of the rehabilitation of services and the commencement of the reconstruction process.

3.- Based on the final damage assessment report establish priorities and identify sources of financing of projects.

4.- If necessary, establish and chair a Reconstruction Committee with the following members and any other as necessary.

- Ministry of Physical Development
- Ministry of Finance
- Ministry for External Affairs
- Ministry of Works
- Ministry of Agriculture
- Ministry of Housing
- NEMO
- Private Sector (utility companies and others)
- Other governmental, private and social organisations as needed.

5.- Invite as permanent members of the Reconstruction Committee all those Ministries or agencies involved in the reconstruction process according to the existing damage and the priorities set.

6.- Jointly with the Ministry of Physical Development, the Ministry of Finance, The Ministry for External Affairs, the Ministry of Works and any other Ministry or Disaster Committee as needed, establish contact with donors in order to get funds for reconstruction projects according to the donors' funding mechanisms and Saint Lucia internal financial mechanisms.

7.- Jointly with the Ministry of Physical Development, the Ministry of Finance, The Ministry of External Affairs, the Ministry of Works and any other Ministry or Disaster Committee as needed, establish a 'Saint Lucia Reconstruction Programme' considering, at least:

- Number and Type of Projects
- Amount (Funds)
- Source of financing
- Responsible for the supervision of the project
- Activities
- Programme

8.- Always revise, supervise and approve the Terms of Reference of every project within the Reconstruction Programme.

9.- Supervise and be informed by the Reconstruction Committee about the progress of every project within the Reconstruction Programme until every project and the Programme is finished.

10.- Regarding Emergency Housing, follow the Emergency Housing Policy for Saint Lucia. (See attachment 1 to this procedure).

B.- The Deputy Prime Minister or Nominee shall:

In the Case of the Change of an Alert Level:

- 1.- Assist the Prime Minister in all his/her activities regarding reconstruction after a disaster in Saint Lucia.
- 2.- Assist the Prime Minister in the co-ordination of 'Task Force' and the Reconstruction Committee until all their works and projects are finished and reconstruction considered finished.

Attachments (Not shown.)

Attachment 1.- Emergency Housing Policy

END OF PROCEDURE

Saint Lucia National Emergency Management Plan
Saint Lucia National Volcanic Eruption Response Plan

**Emergency Procedure VEP-950 District Disaster Committee General
Procedure (Volcanic Eruption).**

Version

Version 1 December 11th, 2002.

Objectives

To identify vulnerability and risks, respond and provide relief for the case of a volcanic eruption.

Responsible for the Procedure:

Main:

District Disaster Committee Chairperson.

Secondary:

Deputy Chairperson of the Committee.

Steps of the Procedure.

A.- The District Disaster Committee Chairperson 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 District Disaster Committee has amongst its members:

- Principals of schools
- All service clubs
- Churches
- Red Cross
- Development Committee
- Fishermen's cooperative
- Radio amateurs/citizen band
- Farmer groups
- Youth organisations
- Mothers and fathers groups

Minibus, taxi associations
Markets/supermarkets/commerce
Police representative
Fire service representative
Representative of the District Health Team (Chairperson or nominee)
Private companies (vehicles, light and heavy equipment, materials, etc)

3.- Ensure that the District Committee is organised and working permanently; assign responsibilities and permanent tasks to committee members at least for:

vulnerability assessment
telecommunications
transportation
evacuation
public information
shelter management
health and welfare
supply management

4.- Inform all Committee members and NEMO about the location of the District EOC and discuss their functions during a disaster.

5.-Identify means of communication between the District Committee EOC and the District committee members.

6.- If the District is in any of the hazard zones, participate in the design of the hazard zone evacuation plan.

In the Case of the Change of an Alert Level:

7.- If requested by NEMO, attend the meeting called by NEMO and discuss any disaster management issues that may arise, particularly regarding evacuation and protection of the population.

8.- If the National EOC is activated, activate the District EOC and remain there.

7.- Notify the rest of the District Committee members that the District EOC has been activated.

8.- Contact NEMO and ask for instructions.

9.- If the District is in a hazard zone that has to be evacuated, deactivate EOC (if activated) and assist the NEMO in the evacuation of the whole District. Go to END OF PROCEDURE.

10.- If the District is not in a hazard zone that has to be evacuated follow the next points of this procedure.

11.- Ensure that re-certified shelter list is received and circulated within 48 hours or before.

- 12- Contact neighbouring District Committees.
- 13- Make an initial assessment of the situation.
- 14- Inform NEMO about the situation and ask for instructions.
- 15- Solve any problems in the District due to the volcanic activity by asking the Committee members to take immediate action according to their responsibilities.
- 16- Keep permanent and uninterrupted contact with the National EOC and inform them about the situation, actions taken and results.
- 17- Activate shelters only when requested and agreed, according to the needs, by NEMO and the EOC. Call shelter managers to activate them immediately.
- 18- Manage the District resources to solve any situations due to the volcanic activity.
- 19- Request and offer assistance and resources to and from neighbouring District Committees as needed.
- 20- If the situation overwhelms all the resources of the District, its members and organisations, request assistance to the National EOC.
- 21- Every twelve hours after the District EOC (DEOC) activation change personnel through shifts.
- 22.- Prepare reports of the situation every six hours and send all reports to the NEOC and NEMO. (Situation report every six hours and final report.)
- 24.- Continue co-ordinating the disaster management activities in the District till the situation is back to normal.
- 25.- Revise and update this procedure after the event.

B.- The Deputy Chairperson of the Committee shall:

Permanent:

- 1.- Assist the Chairperson in his tasks regarding this procedure and the National Volcanic Eruption Response Plan.
- 2.- Know the Volcanic Eruption Response Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding the District Disaster Committee preparedness and response.

3.- Assist the District Disaster Committee Chairperson in ensuring the members of the Committee prepare their directories and inventories of resources and give them to the Chairperson.

4.- Participate in simulation exercises that test this procedure.

In the Case of the Change of an Alert Level:

5.- If the District has to be evacuated, assist the District Chairperson and the NEMO in the evacuation. GO TO END OF PROCEDURE.

6.- If the District EOC is activated, maintain communication with the Chairperson and assist him/her in any attention matters.

7.- Assist the Chairperson in chairing the DEOC and with the follow up of every action taken by the committee members

8.- Assist the Chairperson in the preparation of the final report.

Attachments (Not shown.)

Attachment 1.- Directory of Committee members: names, responsibilities, address, phone numbers

Attachment 2.- Inventory of telecommunications in the District. Type, location and responsible for them.

Attachment 3.- Map of high vulnerability areas in the District

Attachment 4.- List of shelters in the District

Attachment 5.- Directory of shelter managers of the District shelters: name, telephone numbers, fax, and address.

Attachment 6.- Inventory of resources committed by the District Committee.

Attachment 7. Evacuation Plan Zone (1, 2 or 3)

END OF PROCEDURE

PART VI - ATTACHMENTS AND APPENDICES.

Appendix 1: Volcanic Assessment

“Volcanic Hazard Assessment for Saint Lucia, Lesser Antilles” by Jan Lindsay, Jerome David, John Shepherd and Judith Ephraim. Seismic Research Unit (SRU). The University of the West Indies. St. Augustine, Trinidad and Tobago. September 2002.

Appendix 2: Reports

Earthquake Event Reports are stand alone documents produced by the Seismic Research Unit (SRU) and are available from the NEMO Secretariat.

Appendix 3: Evacuation Plans

Evacuation Plans for Hazard Zones 1, 2 and 3.

The Saint Lucia Evacuation Plan is a collection of Documents as listed below.

The evacuation procedures are supported by the Saint Lucia National Emergency Plans, Policies, Legislation and Standard Operating Procedures.

Volume

1. Concept of Operations
2. Emergency Shelters [Annual List]
3. Special Needs Evacuation Plan
4. Animal Evacuation and Recovery Plan
5. Traffic Management Plan
6. Community Evacuation Plans

Appendix 4: Format for Notification
(By the Director of NEMO)

Date and hour of information received by SRC _____

Hour of Information Transmittal _____

Information transmitted to _____

Date and our of transmittal by NEMO _____

Alert level. (green, blue, yellow, orange, red) _____

Conditions that determine the notification (volcanic activity)

Possible type and location of eruption (1, 2, 3 or 4) _____

Expected time for the eruption (months, days, hours) _____

Area that is likely to be affected by the eruption (hazard zones likely to be affected) _____

Meeting to be held (colour of meeting, time and place) _____

Other actions to be taken _____

