



St. Vincent and the Grenadines National Emergency Management Plan

ANNEX 4

Draft St. Vincent and the Grenadines National Volcano Emergency Plan



October, 2014

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ACKNOWLEDGEMENTS

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The National Volcano Emergency Plan for St Vincent and the Grenadines is approved by:

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ACRONYMS

API	Agency for Public Information
CARICOM	Caribbean Community
CDEMA	Caribbean Disaster Emergency Management Agency
CWSA	Central Water and Sewerage Authority
NEC	National Emergency Council
NEEC	National Emergency Executive Committee
NEC	National Emergency Council
NEOC	National Emergency Operations Centre
NVEP	National Volcano Emergency Plan
OPM	Office of the Prime Minister
PAHO	Pan-American Health Organisation
RSS	Regional Security Service
RSVGPF	Royal St. Vincent and the Grenadines Police Force
SAR	Search and Rescue
SMU	Soufriere Monitoring Unit
SRC	Seismic Research Centre
SVGCC	St. Vincent and the Grenadines Christian Council
SVGRC	St. Vincent and the Grenadines Red Cross

TABLE OF CONTENTS

A.	INTRODUCTION.....	1
B.	HAZARDS AND THREATS	3
C.	AIM.....	6
D.	SPECIFIC OBJECTIVES	6E.
	Operational Situation	6
	Social Context	7
	Enforcement Policy	7
F.	MONITORING AND EVENT NOTIFICATION	8
G.	ROLES AND RESPONSIBILITIES OF RESPONSE AGENCIES	9
	i. Introduction.....	9
	Government Agencies.....	9
	Non-Government Organisations (NGOs) and Privates Sector	10
	Scientific Organisations	10
	ii. Functions and Responsibilities.....	10
	1. Pre-Eruption Planning	10
	2. Alert Stages.....	11
	3. Recovery and Rehabilitation.....	11
	Police Department	11
	Fire Department.....	12
	Ministry of Transport and Works	12
	Ministry of Health and the Environment.....	12
	Ministry of Agriculture	13
	Agency for Public Information	13
	Coast Guard.....	13
	Non-Government Organisations (NGOs) and Private Sector.....	14
H.	COMMAND, CONTROL AND COORDINATION	14
	1. Introduction.....	14
	I. Objectives	15

ASSUM

II. Operations	17
a. Context.....	17
b. Logistics	17
c. Emergency Communications	18
d. Public Education and Information	18
e. Evacuation	19
f. Search and Rescue	20
g. Mass Casualty	20
h. Emergency Transportation.....	20
i. Emergency Shelter	21
j. Welfare	21
A. Following a Notice of Volcanic Unrest (Yellow).....	23
B. Following a Volcano Advisory (Orange).....	24
C. Following a Volcano Alert (Red).....	25
I. CONCLUSION.....	26

APPENDICES:

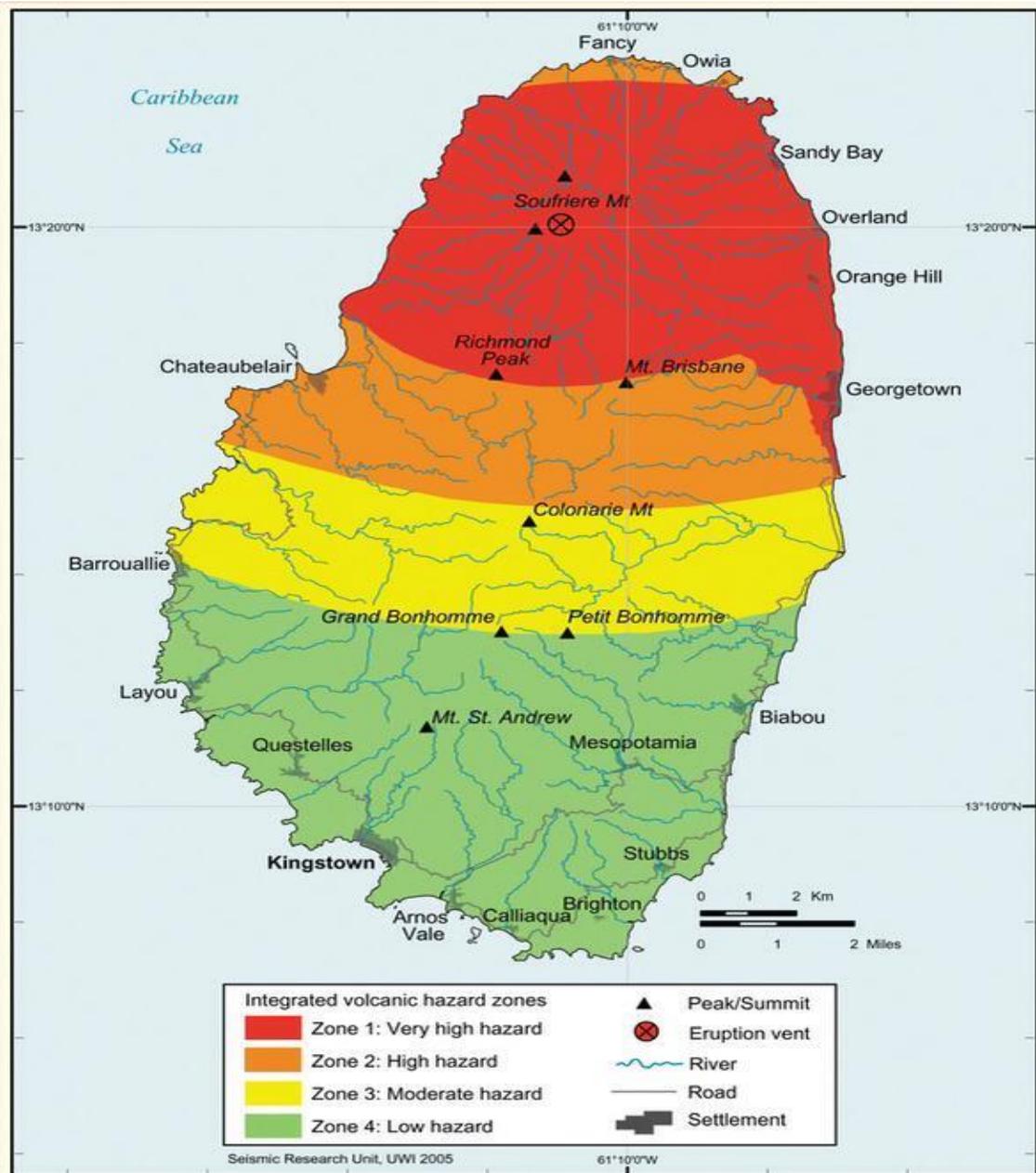
Appendix A: POPULATION IN HAZARD ZONES	27
Appendix B: VOLCANO HAZARD ALERT SCHEDULE	30
Appendix C: SURVEILLANCE AND ALERTING PROTOCOL.....	31
Appendix D: EVACUATION DECISION TREE	32
Appendix E: EVACUATION PROCEDURE.....	33
Appendix F: ALERT EMERGENCY PROCEDURE	36
Appendix G: EMERGENCY COMMUNICATIONS PROCEDURE	42
Appendix H: MEDIA PROCEDURE GUIDE	46
Appendix I: SURVIVABILITY GUIDE	48
Appendix J: SAR PROCEDURE GUIDE.....	51
Appendix K: EMERGENCY TRANSPORTATION PROCEDURE	57
Appendix L: NATIONAL EMERGENCY OPERATIONS PROCEDURE.....	62
Appendix M: DEFINITION OF VOLCANO HAZARDS	76

**DRAFT SAINT VINCENT AND GRENADINES NATIONAL
VOLCANO EMERGENCY PLAN**

A. INTRODUCTION

1. St. Vincent and the Grenadines is located in the southern section of a chain of volcanic islands which comprise the Lesser Antilles. The island is 30 km long and is made up of Pliocene to Recent basalts and andesitic basalts which originate from largely unknown and strongly dissected centres (Aspinal et. al., 1973).
2. The strongest volcanic centre is the La Soufriere Volcano. This volcano constitutes the north most third of the island and has a diameter of 11 km at the sea level. The Soufriere is a strata-volcano, 1220 meters high, with an open summit crater 1.6 km in diameter. (Aspinal et al 1973).
3. The Soufriere volcano has, in the past, demonstrated its ability to produce violent and destructive eruptions causing serious damage to life and property. It is one of the most active and dangerous volcanoes in the West Indies.
4. The hazards posed by the Soufriere volcano are all associated with its violent type of eruptions. In a typical explosive eruption, ash falls, mudflows and glowing avalanches are produced. In addition, a number of secondary threats can result from eruptions (such as floods, fires and tsunamis).
5. The Soufriere volcano is considered by scientists to be a relatively young volcano. It is still in the 'prime of life' and has a very high probability for eruptions in the future.
6. The Seismic Research Centre (SRC), in collaboration with the Soufriere Monitoring Unit (SMU) operate and maintain a twenty-four hour computer-assisted monitoring system, designed to give government sufficient warning so as to prepare for action in the event of an eruption.
7. Assessments of the state of the volcano and the hazards and risks associated with it are routinely carried out by the SRC with intensified monitoring when there are signals of elevated activity.
8. The major volcano hazard prone areas are those villages and communities north of the Rabacca and Wallibou Rivers, along the east and west coasts (North Windward and North Leeward) part of St. Vincent (Figure 1, Volcano Hazard Zones). The Government of St. Vincent and the Grenadines wants to ensure that future eruptions result in no loss of life, orderly evacuation (if required), adequate emergency shelter and victim care for the displaced.

FIGURE 1: SVG VOLCANO HAZARD ZONES MAP



9. This Volcano Emergency Plan is being developed to deal with evacuation of those communities in the North Leeward and Windward where lead time may be given before an evacuation decision.
10. This document provides an organizational framework as well as technical and scientific information, upon which actions to be taken during a volcanic emergency can be based.

B. HAZARDS AND THREATS

I. The primary volcanic hazards are:

- a) Pyroclastic flows and surges from dome collapses
- b) Pyroclastic flows and surges from the collapse of the crater walls
- c) Pyroclastic flows and surges from explosive column collapse
- d) Lateral Blasts Explosions with ash and rock fallout
- e) Mudflows or Lahars

See Table 1 below.

Table 1: LA SOUFRIERE VOLCANO IMPACT MATRIX

Hazard	Area Affected <i>(Radial distance from vent, km)</i>	Immediate Risk	Ongoing Risk	Anticipated Loss	Mitigation	Recovery Period following Cessation of Activity
Earthquake*	5-8km	Low	Low	Small	Not applicable	Not applicable
Lava flows and domes*	1-3km	High	Low	High	Moderate	Several months to years
Pyroclastic flows and surges*	5-7km	High	High	Extreme	None	Several weeks to several months
Mudflows*	5.10km	High	High	High	None	Several weeks to several months
Ballistic projectiles*	1-5km	Moderate	Moderate	Moderate	Minor	1 week to several months
Airfall Tephra*	1 to >10km	Moderate	Moderate	Low to Moderate	Moderate	1 week to several months
Volcanic gases	1-3km	Moderate	Moderate	Low	Minor to Moderate	Not applicable
Phreatic explosions	<4km	Moderate	Low	Low	None	Several weeks to several months
Landslides*	5-8km	Moderate	High	Moderate		Several weeks to several months
Laterally directed blasts and structural collapse	5-8km	Low	Low	High		Several weeks to several months
Lightning*	<7km	Low	Low	Low	None	Days to weeks
Tsunami	5 to >10km	Low	Low	Low	Moderate	Up to 1 – 2 days
*Events which are likely to be repeated over a period of time (days, weeks to months) following the initial event						

b. Death and injury can result from:

- i. Heat exposure from surges
- ii. Missile impact from airborne pyroclasts
- iii. Electrocution from lightning strike
- iv. Ash inhalation and ingestion
- v. Inhalation of noxious gases
- vi. Collapse of buildings from ash loads
- vii. Fires generated by airborne pyroclasts or lava flows

c. The threats to infrastructure, lifelines and property are:

- i) Total destruction
- ii) Partial damage
- iii) Route obstruction
- iv) Structural collapse
- v) Electrical malfunction
- vi) Pollution

II. Demography

There are thirty (30) villages in the **Red** and **Orange** Volcano Hazard Zones, eight (8) in the **Red** and twenty-four (24) in the **Orange** Zone. Approximately five thousand and sixty-two (5,062) persons live in the **Red** Zone and ten thousand, five hundred and seventy-seven (10,577) in **Orange**. The male-female ratio is approximately 51:49 (**Appendix A: Population in Hazard Zones**).

The topography is very rugged, punctuated with valleys, generally narrow and winding coastal roads with limited options for motorized transportation.

The area is an intensive farming region for both crops and livestock.

C. AIM

The Volcano Emergency Plan seeks to provide for the safe evacuation of the population (and specified property) from the designated areas at risk in a phased or spontaneous operation in the event that La Soufriere volcano should threaten communities in these areas, and to provide for their accommodation in safe areas.

D. SPECIFIC OBJECTIVES

1. To evacuate the population of all communities located in areas north of the Rabacca and Wallibou Rivers in northern Saint Vincent, before an eruption takes place.
2. To evacuate all populations at risk from eruptions of the La Soufriere Volcano, in a phased manner, such that areas most vulnerable are evacuated first (**RED AREA**) followed by evacuation of areas of reduced risk (**ORANGE AREA** AND **YELLOW AREAS**) as this becomes necessary (**Figure 1**).

This plan is intended to guide relevant agencies in actions designed to:

- i. Protect lives
- ii. Prevent injury
- iii. Remove the population from danger
- iv. Provide emergency accommodation
- v. Provide emergency welfare support
- vi. Guide the emergency response agencies
- vii. Educate and inform the public

E. ASSUMPTIONS

a. Operational Situation:

1. The probability of a no-notice evacuation is highly unlikely.
2. The Functional Annexes of Search and Rescue, Healthcare, Public Information, Traffic Management and Shelter Management of the **National Disaster Management Plan (NDMP)** are available and up to date and Evacuation Routes and Assembly Areas are identified in the communities in the hazard zones.
3. The key response Agencies are familiar with their roles and responsibilities
4. The plans and procedures will be exercised

b. Social Context:

5. A database of the persons residing in the volcano Zones has been compiled by geographic location and persons with special needs have been identified.

c. Enforcement Policy:

6. If an evacuation of North Windward and North Leeward becomes necessary, the Prime Minister will declare the evacuated areas as Restricted Zones and it would therefore be an offence for unauthorized persons to remain there.
7. The members of the Royal St. Vincent and the Grenadines Police Force (RSVGPF), in particular, Fire Department will assist minors, the mentally challenged, the infirm and the aged to leave the area.
8. Those who remain in any area declared a “Restricted Zone” will be notified and made aware that they do so entirely at their own risk.
9. Should there be a sudden and rapid escalation in volcanic activity, which affects any area declared a “Restricted Zone”, the Emergency Response Teams will **NOT** be required to take any action which would endanger their own lives to assist those who remain in the area.

F. MONITORING AND EVENT NOTIFICATION

It is conceivable that residents may spontaneously evacuate if they determine that they are in danger.

Emergency managers will then be faced with the challenge of bringing the situation under control after such a spontaneous evacuation. However, the formal alert and warning system is based on the scenarios of an Event with Notice.

This scenario speaks to a situation where the activities at the La Soufriere Volcano present the authorities with the opportunity to provide a lead time for evacuation if such a decision is going to be taken. An alert and warning schedule has been established (**Appendix B: Volcano Alert Schedule**) and calls for the scientific input in defining the alert status resulting from the increased volcanic activity, enhanced seismicity and the imminence of an eruption (**Appendix C: Surveillance and Alerting Protocol**).

The established Alert Level scheduled also serves to inform public awareness, education and operations planning. It is based on a four (4) color scheme where **GREEN** is the normal state; **Yellow** indicates observed restlessness of the volcano; **ORANGE** indicates high levels of seismicity or fumarolic activity or both; **RED** indicates eruption in progress or likely without warning (**Appendix B**). The protocol informs a decision making process as the actions to be taken including activation of the NEOC and evacuation (**Appendix D: Evacuation Decision Tree**). Once the SRC/SMU has notified of increased seismic activity at La Soufriere Volcano:

- i) The Prime Minister will convene the National Emergency Council (NEC), if necessary, to discuss the situation and decide further action, which might be to maintain or increase the state of readiness, activate the Evacuation Plan or stand down.
- ii) If the decision is taken to evacuate then the procedure relating to a phased evacuation will be followed (**Appendix E: Evacuation Procedure**). Additionally, established warning procedures will be activated and appropriate messages broadcast on the National Broadcasting Corporation. The NEOC Information Coordinator will pass relevant information appropriate to the situation to Hitz FM, WE FM, Star FM, Nice Radio, Cross Country Radio, Hot FM, Praise FM and other media houses to broadcast to the public.
- iii) If the decision is to maintain the existing state of readiness (i.e. key personnel only alerted), the Prime Minister, through the Director of NEMO, will instruct key personnel to remain easily contactable until the situation is clarified.
- iv) If the decision is to increase the state of readiness, the Chairperson of the National Emergency Executive Committee (NEEC) will bring the emergency response agencies to standby. The response agencies and District Committees will undertake preparations required as per their respective agency plans (e.g. pre-positioning of assets).
- v) If the decision is taken to deactivate, key emergency response personnel will return to their normal duties.
- vi) An Alert Procedure to guide this process is provided at **Appendix F**.

A decision to evacuate will be prompted by one or a combination of the following:

- 1) Scientific advice that a major volcanic event is imminent or likely
- 2) An initial event which suggests further sustained high levels of activity
- 3) A major destructive event.

- 4) Deteriorating conditions making life in the affected areas untenable

G. ROLES AND RESPONSIBILITIES OF RESPONSE AGENCIES

I. INTRODUCTION

Managing a volcano emergency will require a whole of government and stakeholder effort.

The agencies and entities assigned responsibility for the implementation of volcanic evacuation plans are:-

a. **Government Entities**

- The Office of the Director (Director)
- The National Emergency Council (NEC)
- National Emergency Operations Centre (NEOC)
- Police Department
- Fire Department
- Ministry of Transport and Works
- Ministry of Education, etc.
- Ministry of Health and the Environment
- Ministry of Housing, etc.
- Ministry of Agriculture, etc.
- Agency for Public Information (API)

b. **Non-government Organisations(NGO's) and Privates Sector**

- | | |
|-----------------------|-------------------------------------|
| • Chamber of Commerce | • LIME |
| • Lions | • Digicel |
| • District Committees | • Brigades |
| • Red Cross Society | • Youth Council |
| • Rotarians | • 4 H Clubs |
| • Christian Council | • Jaycees |
| • Boy Scouts | • Flow SVG Ltd. |
| • Amateur Radio Club | • SVG Hotel and Tourism Association |
| • Girl Guides | |
| • C.B. Radio Club | |
| • Cadets | |

c. **Scientific Organizations**

- Seismic Research Centre
- Soufriere Monitoring Unit
- Meteorology Service

II. FUNCTIONS AND RESPONSIBILITIES

The functions and responsibilities of the key agencies and entities involved in volcanic emergencies, (The NEC, NEEC, Director of NEMO, NEOC, District Committees and Sub-Committees) are:

1. PRE-ERUPTION PLANNING

- a) Monitor of government departments, agencies and other entities to ensure that emergency plans are developed within a specific time frame;
- b) Develop and disseminate operating procedures;
- c) Prepare inventory lists of essential resources, identify shortfall and develop contingency plans;
- d) Identify voluntary services personnel and establish procedures for their mobilization;
- e) Establish clear lines of communication for the transmission of scientific data from the Seismic Research Unit (Trinidad) and the Soufriere Monitoring Unit (St. Vincent);
- f) Identify suitable buildings, in SAFE AREAS, for use as Volcanic Emergency Shelters. Assign staff to shelters;
- g) Ensure the development of an inventories of vehicles, boats, motors, heavy equipment and operators, both governmental and private, for use in an evacuation;
- h) Review and update, with the input of the Legal Department, of legislation governing the acquisition of privately owned vehicles and equipment, for emergency purposes;
- i) Train all persons involved in volcanic evacuation in their areas of specialization.

2. ALERT STAGES

- a) Activation of evacuation plans;

- b) Monitoring, checking readiness of personnel and equipment, mobilization, issuing warnings, deployment.

↓

3. **RECOVERY AND REHABILITATION**

- a) Deploy persons to undertake damage assessment
- b) Continue issue of instructions for relief, repairs, etc.
- c) Evacuation of shelters
- d) Phase out emergency.

a. **Police Department**

In addition to its general functions, as outlined in the National Disaster Management Plan (NDMP):

- i. Manage evacuation operations in cooperation with the Ministry of Transport and Works.
- ii. Monitor people evacuating the Hazard Areas under their own arrangements in collaboration with the District Emergency Committee Chairmen.

b. **Fire Department**

Functions in the various areas as outlined in the National Disaster Management Plan.

c. **Ministry of Transport and Works**

In addition to its general functions, as outlined in the National Disaster management Plan:

- i. Develop sectorial plan for mobilization of public and private transport (boats, ships, trucks, buses, cars), as well as of heavy equipment for use in an evacuation.
- ii. Survey evacuation routes and bridges from the hazard areas to safe areas;

- iii. Assess need for additional emergency generators for government buildings, hospitals, emergency shelters and other vital areas of operation;
- iv. Survey of additional buildings for use as emergency shelters in safe areas.

d. Ministry of Health and the Environment

In addition to its general functions as outlined in the National Disaster Management Plan:

- i. Develop alerting procedures to warn clinics and visiting stations in the Hazard Areas;
- ii. Develop evacuation plans and field operations for use in the event hospitals in the hazard areas are to be evacuated;
- iii. Mobilize additional health personnel, with call-up procedures, to assist in the emergency.
- iv. Undertake off island medical evacuation, if required, with the most appropriate means available. If the airport is open, this will be done by air. Should the airport be closed, a two-stage evacuation method will be employed. Patients will first be taken to Canouan by sea and to their final destination by air. Should options, one and two, not be possible, due to intense ash fall resulting in the closure of both airports, the evacuation will be done by sea. NEMO and the Ministry of Health will therefore develop Memoranda of Understanding with local transport operators and overseas hospitals to ensure that patients are properly cared for.

e. Ministry of Agriculture

In addition to its general functions as outlined in the National Disaster Management Plan:

- i. Develop a sectoral plan for Northern St. Vincent which would provides for relocation and care of livestock in the Hazard Areas.
- ii. Provide personnel to undertake survey and damage assessment of crops and livestock in the Hazard Areas.
- iii. Provide personnel and transport to assist the NEOC in evacuations.

f. Agency for Public Information

In addition to its general functions as outlined in the National Disaster Management Plan:

- i. Develop an information centre in collaboration with the NEOC Coordinator
- ii. Inform the public on matters pertaining to the volcanic emergency.

g. Coastguard

- i. Develop search and rescue plans for the Hazard Areas.
- ii. Develop contingency plans to assist in radio relay during evacuation operations.
- iii. Provide marine warning to shipping likely to be affected.

h. Non-Government Organisations and Private Sector

In addition to general functions as outlined in the National Disaster Management Plan:

- i. Develop mobilization procedures for additional assistance in the Volcanic Emergency.
- ii. Develop alert procedures to assist in warning inhabitants.

H. COMMAND, CONTROL AND COORDINATION

1. Introduction

The management of a volcano emergency, including evacuation, will be guided by the policies, procedures and assigned responsibilities in this plan and within the framework of the National Disaster Management Plan. This is to ensure the effective direction and control of emergency operations associated with preparing for and responding to a volcanic eruption at La Soufriere Volcano. It places emphasis on a unified system involving select government agencies, threatened communities, civil society and elements of the private sector and the use of special facilities essential to enhancing operational response.

This plan is based on the premise that each agency with responsibility for preparedness and response activities has, or will develop, an operations plan or Standard Operating Procedure that covers its organization and emergency operations. This plan establishes a mechanism for coordination of each agency's efforts.

The overall direction and control will be provided by the National Executive Council (NEC). Operational coordination will be under the supervision of the National Emergency Executive Committee (NEEC) chaired by the Director NEMO within the framework of the NEOC. The direct management of the NEOC will be led by the NEOC Coordinator, the Deputy Director of NEMO.

The coordination structure for a volcano emergency and evacuation is shown at **Figure 2** below.

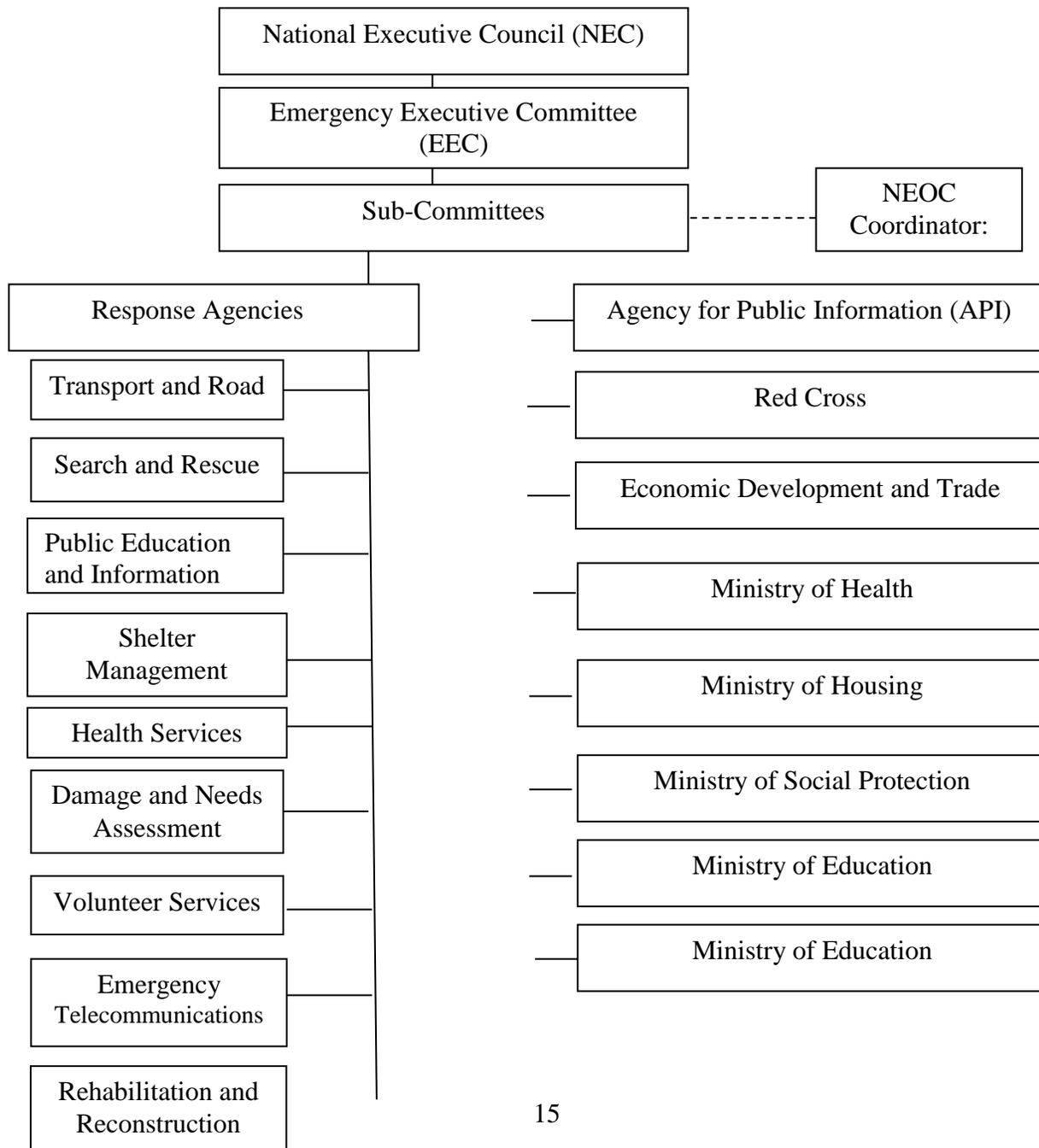
I. Objectives

The objectives of direction and control operations are to ensure the effective direction and control of emergency agencies involved in preparing for and responding to a volcanic eruption.

Specifically this will include:

- i. Exercising overall operational control and/or coordination of emergency operations in support of the emergency management system.
- ii. Coordination and/or maintaining liaison with appropriate agencies and applicable segments of the private sector.
- iii. Requesting and allocating resources and other support.
- iv. Establishing priorities and adjudicating any conflicting demands for support.
- v. Coordinating mutual aid arrangements.
- vi. Activating communications systems.
- vii. Preparing and disseminating emergency public information.
- viii. Disseminating warning of an impending volcanic eruption.
- ix. Coordinating the movement and hosting of persons in the event evacuation is ordered.
- x. Collecting, evaluating and disseminating damage and other essential data.

Figure 2: COORDINATION STRUCTURE



The direction and control element will be the responsibility of the NEOC which consists of Sub-Committee Chairpersons and other supporting officials. The NEOC will include special staff consisting of communications and warning, situation analysis, emergency public information specialists and scientists with specific knowledge regarding the event. The NEOC Procedure for a Volcano Emergency is provided at **Appendix L**.

II. Operations

First priority will be given to life safety

a. Context

Response Agencies will use the established National Disaster Management System and District Disaster Committee mechanisms in conjunction with established mutual aid agreements to direct and control emergency operations. The NEOC Team will meet as needed and as often as events dictate. Once there is a Notice of Volcanic Unrest (**Yellow Alert**) the NEOC shall be established and become operational once levels of activity warrant a multiagency response.

Mutual aid agreements will be activated and plans should provide for automatic implementation at the later stages of **Volcano Advisory (ORANGE)** or **Volcano Alert (RED)**. In order to compress response time, consideration will be given where possible to advance commitment of resources and early procurement and stockpiling of supplies such as:

- i. Special air filters and plastic covers for vehicles and equipment.
- ii. Face masks and eye goggles for personnel.
- iii. Pre-staging of rescue personnel and equipment.
- iv. Pre-identification and supply of shelter and shelter supplies.

In addition, consideration should be made for accelerated installation of communications and warning devices, and movement of supplies, equipment, critical facilities and people out of the area of greatest danger.

All responding agencies, both national and local, shall provide adequate support and equipment in accordance with agency policy. They will also provide protective devices for personnel and air filtration devices for mobile and other motorized equipment.

b. Logistics

Field operations will be directed by the NEOC and may consist of police, fire, medical, public works and emergency management personnel from all of the Affected or Threatened Communities.

The potential threat of an eruption or unexpected landslide generated lahar from La Soufriere raises serious policy issues. These include the commitment of resources to achieve a higher state of readiness, the implementation of precautionary measures such as restricting movement into or within the area, and the dissemination of warning and other public information. In addition, response to an eruption could involve lifesaving operations by state agencies, private organizations and the Regional Response Mechanism.

Consequently, the NEOC, established at Old Montrose, will be utilized for receipt and dissemination of information, alerting and mobilizing, and for control and coordination of emergency operations (**Appendix E: Evacuation Procedure**).

All logistical requirements will be processed through the NEOC Structure once warning time is allowed.

Areas of closure will be designated and access control will be applied as dictated by developing conditions of volcanic unrest, or upon the onset of an emergency in a no warning situation. Closure zones will be subject to change as the hazard perception changes, following an eruption and based on current geologic conditions. Roadblocks, barricades and roving patrols will be used to enforce the closure. The RSVGPF is responsible for developing **A Traffic Management Plan**.

Flight restrictions will be applied if an eruption or lahar is imminent or upon the onset of an emergency in a no warning situation.

c. Emergency Communications

In the event of a major volcanic event at La Soufriere, an interruption of normal communications channels is assumed. In addition, those communications resources that do remain in operation will be taxed beyond their capability. To direct and control response to a disaster of this magnitude, normal communications systems will be augmented in order to obtain resiliency, ensure interface and provide a means of contacting facilities and agencies inside and outside the affected area (**Appendix G; Emergency Communications Procedure**).

Alerting and notification procedures developed are to be maintained to ensure that organizations and individuals designated to respond to a potential or actual event can be alerted and notified of the situation.

d. Public Education and Information

It is anticipated that the public will actively seek information about the event and safety procedures. Most will comply with instructions from official sources. Demand for information during an emergency will be reduced if good education programs for residents and visitors have been instituted and kept current well prior to the actual event. Prompt release of accurate and current information to the public will assist the emergency response by reducing confusion, panic and spread of rumors.

The NEOC will coordinate all public information release with affected communities in an attempt to maintain consistent and timely release of information and to educate the population and visitors regarding emergency procedures. This will be done through the Agency for Public Information before the NEOC is activated and the Media Information Centre (**MIC**) once the NEOC is activated. A guide for the **MIC** is provided at **Appendix H**.

Media related issues will be led by the NEOC Information Coordinator in accordance with the Media Plan to be developed at using the Guide at **Attachment H**. Approved press releases will be issued only from the EOC. Telephone queries will be handled by volunteers based in the Media Facility. Only accredited journalists will have access to the Media Centre.

The success of this Plan depends on the involvement and cooperation of the public. Ongoing education and information programmes are essential to ensure appropriate public responses.

The Director of API and Training Officer, NEMO are responsible for the **Public Education and Training Programme which will:**

- a) Explain volcanic hazards and threats
- b) Emphasize the need to leave the affected areas when so advised
- c) Explain the emergency evacuation system
- d) Provide information on survival techniques
- e) Assist the Director of NEMO in coordinating any training and Exercise requirements

e. Evacuation

The decision to evacuate will be made by the NEC based on information provided by the NEOC using the declaration guide at (**Appendix D: Evacuation Decision Tree**).

Evacuation with warning will be carried out along pre-established Evacuation Routes to **Designated Assembly Points** and then to **Designated Safe Areas**. On **Arrival in the Safe Area**, drivers will be directed to the established Holding Area(s). The NEMO Director is responsible for the layout and organization of the Holding Area as detailed in the Transport Plan to be developed. Special arrangements have to put in place for the Schools in the relocation Zones.

An Evacuation Procedure is provided at **Appendix E**.

Police and fire personnel will evacuate themselves and notify as many persons as possible by use of radio and loudspeaker announcements to evacuate. Police will establish traffic corridors for the evacuees and keep all outbound routes and moving those leading to the holding areas and safety facilities.

If conditions are deemed to be unsuitable for immediate evacuation, the public will be advised to remain in their homes and put into effect the survivability measures detailed in (**Appendix I; Survivability Guide**) in brochures to be issued to them.

A **Policy for Re-entry** into the affected areas will be decided by the NEC and the public will be informed accordingly.

f. Search and Rescue

Search, Rescue and Recovery Operations may be established as determined by the NEOC Operations. Police/Fire will be the lead agency for conducting SAR operations. Resources may include police, fire, trained volunteer search and rescue teams, local personnel, SSU, RSS and other regional response teams all of whom will report to the NEOC. A guide for Search and Rescue is provided at **Appendix J: Search and Rescue Guide**. All air operations will be coordinated from the area agreed with the Airport Department. The Chairperson of the Transport and Road Clearance Sub-committee is responsible for ensuring assets are available for SAR.

g. Mass Casualty

Casualty Handling will be in accordance with the Ministry of Health Mass Casualty Plan.

h. Emergency Transportation

Emergency Transportation is the responsibility of Transport and Road Clearance Sub-Committee in keeping with the **Emergency Transportation Procedure** at **Appendix K**. This does not preclude encouraging the use of private vehicles for evacuation through a public education campaign urging drivers to pick up people without their own means of transport.

i. Emergency Shelter

Emergency Shelter accommodation will be provided for persons who need it in accordance with the Emergency Shelter Plan (Not provided). It must be noted that emergency accommodation is deemed to be concluded after one month of occupancy. Persons who require accommodation after that point will be assisted under **[the terms of the Emergency Resettlement Strategy to be developed]**.

Evacuees are encouraged to bring basic food supplies with them. It is expected that food stores in the safe area will continue to operate. Cooking arrangements at shelters are to be addressed in the **Emergency Shelter Plan**.

In the event of a failure of **Water Supply** mains in the safe area, the **Central Water and Sewage Authority (CWSA)** will provide supplies in accordance with its **Emergency Plan for Water Distribution [to be developed]**.

Registration and Tracing will be led by the **SVGRC**. Evacuees from affected areas who are accommodated at shelters will be subject to the Shelter Rules and operational procedures which require registration and the maintenance of accurate occupancy records.

j. Welfare

The Social Development Department will be responsible for providing and coordinating emergency welfare response. Welfare activities include tracing, counseling, and provision of financial and other assistance will be supported by the St. Vincent and the Grenadines Red Cross Society. The Community Development Office will prepare the necessary documentation and make referrals to other related services. This also includes care for vulnerable groups and individuals with special needs where appropriate and possible. Welfare support will be provided as follows:

- i. **Special Needs:** Ministry of Health, Community Services and District Nursing system will provide assistance for special needs cases.
- ii. **Counseling:** The Community Services Department will coordinate the activities of all available community welfare organizations including SVG Red Cross (SVGRC), the SVG Christian Council (SVGCC) etc.
- iii. **Tracing/Casualty Bureau:** SVGRC will be responsible for establishing and manning a tracing unit. Information on evacuees and casualties will be provided by NEMO.
- iv. **External Assistance:** External support e.g. CDEMA, RSS and other regional organizations will be requested through EEC if necessary.
- v. **Families of Key Personnel:** For this plan to function, it is essential that the families of key personnel are taken care of while those officials are performing their duties. The Head of each organization is responsible for working with each member of staff to minimize inconvenience to families.

- k. **Training for Emergency Response Personnel**

It is essential that the staff of the emergency response agencies and volunteer support staff are fully trained and resourced to execute this plan. Both intra and inter-agency planning and training are necessary. Heads of agencies are responsible for internal planning and training. The NEMO Director is responsible for joint training and simulation exercises. Records of exercises, lessons identified and plan amendments will be maintained by the **NEMO Director**.

- l. **External Agencies**

Assistance may be sought from external agencies if necessary. Likely providers of support include:

- a) Civilian shipping and aviation
- b) Caribbean Disaster Management Agency (CDEMA)
- c) Pan-American Health Organization (PAHO)
- d) Member States of the Caribbean Community (CARICOM)

111. ORGANIZATION AND RESPONSIBILITIES ACCORDING TO LEVELS OF ALERT

The following elements will provide direction and coordination of emergency response in support of threatened communities at the various volcano alert levels.

A. FOLLOWING A NOTICE OF VOLCANIC UNREST [YELLOW]:

1. Response agencies/District Committees:

- a) Convene internal Operations Team
- b) Review plans and procedures for response to the volcanic hazard threat.
- c) Designate staff that will be responsible for filling positions in the national, ministry and sector EOCs.
- d) Provide orientation sessions on current plans and organizational structure.
- e) Update call- up procedures and listings for response staff/personnel.
- f) Conduct briefings as needed.

2. NEMO Secretariat

- a) Convene the NEEC
- b) Review internal plans and procedures
- c) Implement notifications.
- d) Provide technical assistance to District Chairpersons.
- e) Coordinate with Emergency Support Function agencies that may be called upon to provide assistance.

- f) Coordinate mutual aid agreements
- g) Evaluate the need for assistance from additional agencies.
- h) Evaluate resource requirements.
- i) Issue advisories and policies in consultation with the NEC.
- j) Conduct hazard specific training.
- k) Conduct briefings as necessary.

3. SRC/Soufriere Monitoring Unit

- a) Monitor the status of the volcano and determine the need for additional instrumentation and/or other resources.
- b) Issue alert- level notifications and updates.
- c) Consider establishing a temporary field observatory.
- d) Conduct briefings as necessary
- e) Provide public education
- f) Evaluate need for access control and advise as needed.
- g) Evaluate the need for air space controls and advise as needed.
- h) Authorize placement of additional instrumentation as needed.

4. NEOC

- a) Discuss and evaluate developing events and information.
- b) Review NVEP plan.
- c) Disseminate public information.
- d) Consider recommending the activation of NEOC depending on situation.

B. FOLLOWING A VOLCANO ADVISORY [ORANGE] (*hazardous volcanic activity is likely but not necessarily imminent*):

1. Response agencies/District Committees:

- a) Establish local EOC and consider allocate staff and resources for NEOC.
- b) Conduct surveys on resource availability and reaffirm prior commitments.
- c) Test communications systems and assess communications needs.
- d) Begin procurement of needed resources.
- e) Assign PIO's to the MIC as needed.
- f) Provide briefings and direction to all response personnel.
- g) Request all assigned personnel to stand by for orders to be activated.

- h) Take readiness and precautionary actions to compress response time and to safeguard lives, equipment and supplies.

2. NEMO

- a) Implement plans for communications support for the affected area(s).
- b) Coordinate joint public education programs.
- c) Increase, as needed, the staffing at the NEOC.
- d) Establish a Media Information Center (MIC) and support local government with PIO information.
- e) Ensure state agencies are alerted to potential problems and review their operational responsibilities.
- f) Establish field observatory if not already established.

C. FOLLOWING A VOLCANO ALERT [RED] (*hazardous volcanic event appears imminent or is underway*):

1. Response agencies/District Committees:

- a) Fully mobilize all assigned personnel and activate all or part of the Agency Volcanic Emergency Plan.
- b) Continually disseminate emergency public information.
- c) Direct and control emergency response activities in accordance with NEOC Plan.
- d) Ensure that the organization/District EOC is adequately staffed and equipped.

2. NEMO

- a) Activate the National Volcano Emergency Management Plan and NEOC Procedures.
- b) Coordinate local response agencies and District Disaster Committees.
- c) Coordinate external response.

Implement plans for coordinating the following response operations within the affected areas:

- i. Fire
- ii. Evacuation
- iii. Security
- iv. Access Control
- v. Search and Rescue
- vi. Alert and Notification

- vii. Support operations, logistics and planning functions with personnel and resources.

3. SRC/Volcano Monitoring Unit

- a) Monitor status of volcanic activity in the hazard area.
- b) Issue alert- level notifications and updates.
- c) Provide Liaison to the NEOC for information and advice.

4. OECS Aviation Authority (OEA)

- a) Issue airspace alert warning of restricted or prohibited space.
- b) Coordinate use

I. CONCLUSION

This plan is designed to facilitate the evacuation of North Windward and Leeward.

The effectiveness of the plan will ultimately depend on the level of compliance received from residents of the area and the degree to which all pre-event preparations are exercised and internalized by the response agencies.

APPENDICES

APPENDIX A: POPULATION IN HAZARD ZONES

Planning Data for North Windward and Leeward

Communities in La Soufriere Hazard, St. Vincent and the Grenadines

(RED) AREA 1	POPULATION		
	MALE	FEMALE	TOTAL
Fancy	255	235	490
Old Sandy Bay And Owia (1)	289	258	547
Old Sandy Bay And Owia (2)	197	163	360
Old Sandy Bay And Point	119	115	234
Sandy Bay (1)	103	138	241
Sandy Bay (2)	169	134	303
Sandy Bay (3)	108	81	189
Sandy Bay (4)	104	108	212
Overland And Big Level	734	706	1440
Waterloo, Orange Hill And Troumaca	180	146	326
Chapman's Village And Langley Park	214	243	457
Chapman's Village And Basin Hole	130	110	240
Richmond, Wallibou, Morneronde	11	12	23
Windsor Forest, Baleine, Quashie	0	0	0
TOTAL	2613	2449	5062

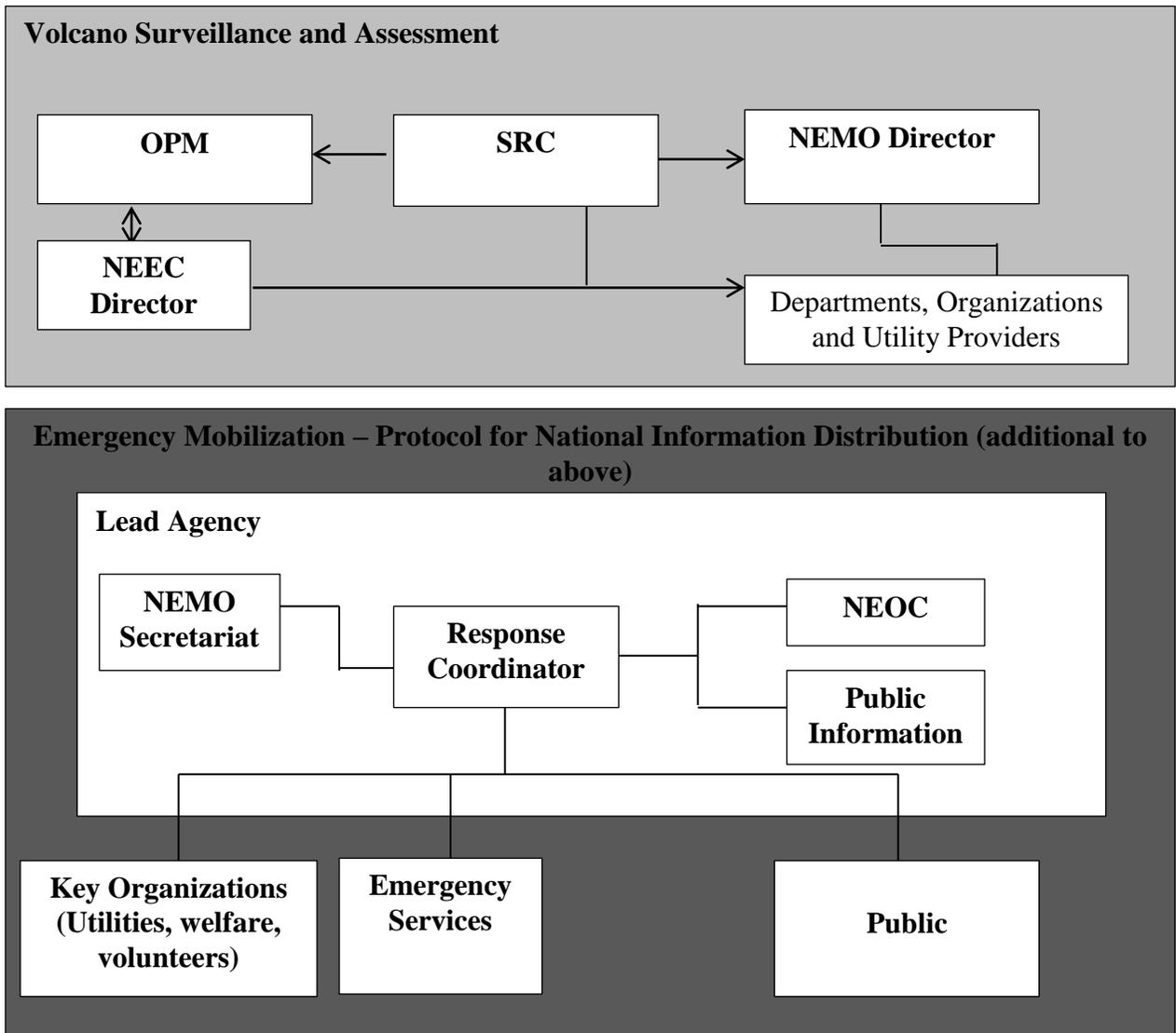
(ORANGE) AREA 2	POPULATION		
	MALE	FEMALE	TOTAL
Mount Bentick	580	587	1167
Caratal	146	156	302
Caratal And Spring Village	188	165	353
Dickson And O'Brien	278	254	532
Byera	346	329	675
Grand Sable And Chester	162	385	347
Georgetown	465	427	892
Chilli And Ruseneat	173	145	318
Cumberland, Mangaroo, Gordon Yard And Cocoa Village	428	391	819
Chateaubelair	49	42	91
Barracks	190	160	350
Town Extension And Corner Bay	137	120	257
Petit Bordel And Sharpes	545	538	1083
Sharpes And Swatts	204	209	413
Rose Bank	415	339	754
Rose Hall	512	442	954
Troumaca	297	252	549
Westwood And Coull's Hill	109	102	221
Spring Village	165	145	310
TOTAL	5389	5188	10577

(YELLOW)	POPULATION		
	MALE	FEMALE	TOTAL
Friendly Village And Colinarie	535	539	1074
Park Hill And Belle Vue	291	279	570
Park Hill And Coolie Hill	256	214	470
South Rivers And Three Rivers	608	519	1127
Gorse, Mangrove And Mt William	353	384	737
Mt. Greenan	361	342	703
Diamond	394	404	798
Chapman	287	273	560
New Grounds	231	233	464
Bottle And Glass, Gabriel, Keartons And Walliabou	854	812	1666
TOTAL	4170	3999	8169

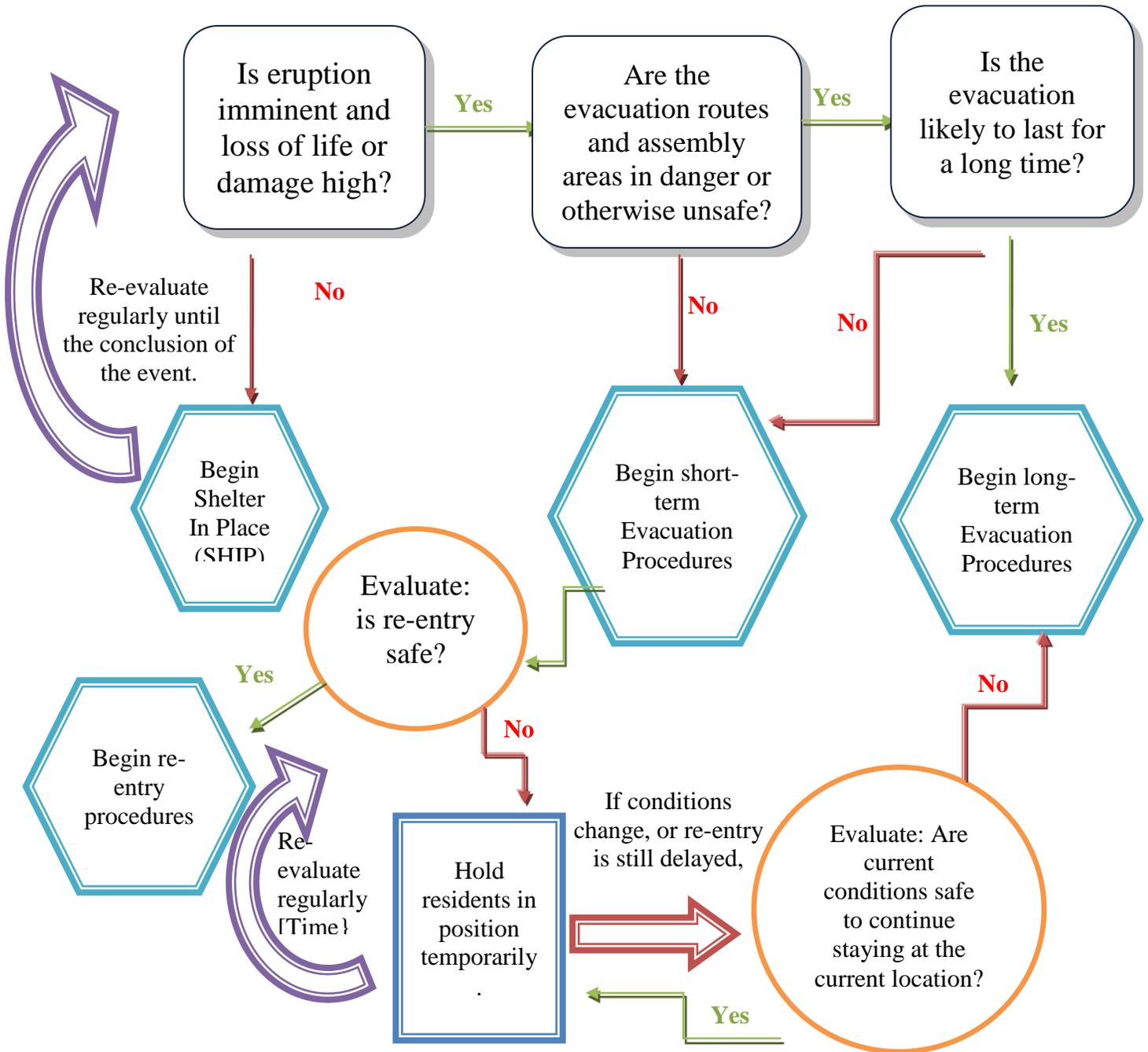
APPENDIX B: VOLCANO HAZARD ALERT SCHEDULE

Alert Level	Symptoms	Action Scientist	Action: Civil ant
Green	Volcano is quiescent (quiet): seismic and fumarolic (steam vent) activities are at or below the historical level at this volcano. No other unusual activity has been observed.	Normal monitoring	Undertake ongoing public awareness campaign and work on volcanic emergency plans.
Yellow	Volcano is restless: seismic 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 same time that the alert level is raised).	Monitoring system will be brought up to full capability. Civil authorities alerted.	Undertake ongoing public awareness campaigns and work on volcanic emergency plans. Advise vulnerable communities of evacuation procedures in the event of an emergency.
Orange	Highly elevated level of seismicity or fumurolic activity or both or other highly unusual symptoms. Eruptions 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.	Coordinate evacuation (if necessary) based on hazard zones. Entry to the restricted access zone by scientist will be permitted after evacuation on a case by case basis. Organize regular radio and television announcements.
Red	Eruption is in progress or may occur without further warning	Measurements as permitted by safety condition. Civil authorities advised continuously.	Coordinate continued evaluation as necessary. Organize regular radio and television announcements.

APPENDIX C: SURVEILLANCE AND ALERTING PROTOCOL



APPENDIX D: EVACUATION DECISION TREE



APPENDIX E: EVACUATION PROCEDURE

1. Version

Version 1: September, 2014

2. Objectives

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

3. Responsible for the Procedure:

Routine:

Commissioner of Police, Royal St. Vincent and the Grenadines Police Force

Secondary:

Chief Fire Officer
District Disaster Committees

Steps of the Procedure:

A. The Commissioner of Police shall:

Routine:

1. Establish co-ordination with NEMO and, at the local level, with the District Disaster Committees to establish and continuously improve evacuation mechanisms.
2. Collaborate and consult with National Disaster Committees, especially the Transport and Road Clearance Sub-committee in the case of evacuation.
3. Annually receive and review from NEMO and the Shelter Management Sub-Committee Chairperson the updated list of shelters.
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 St. Vincent and the Grenadines Hotel and Tourism Association to agree on the mechanisms for the evacuation of visitors as considered in the St. Vincent and the Grenadines Hotel and Tourism Association Plan.

In the Case of the Change of an Alert Level:

1. Attend the meeting called by NEMO and provide advice about evacuation issues.
2. If the NEOC is activated, go to the NEOC.
3. Report to the NEOC Coordinator.
4. Initiate evacuation of specified hazard zones as advised by NEMO.
5. Deploy police personnel and, in co-ordination with the Transport and Road Clearance Sub-Committee, vehicles (or boats) to co-ordinate evacuation activities.
6. Request assistance from District Disaster Committees as needed in the case of evacuation.
7. Request assistance from the Chairperson of the Transport and Road Clearance Sub-committee for transportation resources as needed, and as planned, to conduct the evacuation process.
8. Request information and assistance from the NEOC regarding roads cleared and status of airports and seaports.
9. Request information from the Shelter Management Sub-Committee regarding opened shelters and occupancy levels.
10. Assist in the evacuation of specific buildings as needed: hospitals, governmental buildings and any other that are in danger due to the volcanic activity.
11. In the case of evacuation of tourists/foreigners from the island, advise and assist the Ministry of Tourism and the St. Vincent and the Grenadines Hotel and Tourism Association and the Ministry of Foreign Affairs and the Ministry of National Security in this process.
12. After 12 hours be substituted by the Deputy Commissioner of Police.
13. Resume Chairmanship after 12 hours or at the time agreed.
14. After the NEOC is deactivated, prepare a final report of the evacuation activities and send it to NEMO Director.
15. Participate in evacuation activities until return to normalcy.

16. 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:

Routine:

1. Lead the Police on the tasks regarding evacuation procedure.
2. Know the Volcano Emergency Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his/activites activities regarding evacuation.
3. Participate in simulation exercises that test this procedure within the National Volcano Emergency Plan.

In the Case of the Change of an Alert Level:

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

4. Attachments (Not shown)

- 4.1 Attachment 1: - Directory of Police and Fire Stations and resources.**
- 4.2 Attachment 2.- Inventory of Police and Fire Service means of communications**
- 4.3 Attachment 3.- Evacuation Plan - Hazard Zone 1**
- 4.4 Attachment 4.- Evacuation Plan - Hazard Zone 2**
- 4.5 SOP for Police Out Stations**
- 4.6 List of Volunteers by District**
- 4.7 Inventory of National and District Transportation Assets**
- 4.8 Inventory of Communications assets**

END OF PROCEDURE

APPENDIX F: ALERT EMERGENCY PROCEDURE

Notification

1. Version:

Version 1 September, 2014.

2. Objectives

To notify to all the members of the National Emergency Management Organisation (NEMO) involved in the National Volcano Plan about the threat and/or presence of a volcanic eruption and about the response measures needed to be taken.

3. Responsible for the Procedure:

Routine:

The Director, National Emergency Management Organisation (NEMO).

Secondary:

- The Seismic Research Unit, UWI
- Soufriere Monitoring Unit
- The Office of the Prime Minister
- The Deputy Director, NEMO
- NEMO's secretary
- The Chairpersons of the National Emergency Sub-Committees

3.1 Steps of the Procedure

A. The Director of NEMO shall:

Routine:

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 NEOC update the directories of the personnel and organisations they have to notify are updated at least once a year.
3. Keep one copy of this procedure and its directories at the office and one at home.
4. Maintain contact with the Seismic Research Centre (SRC) regarding volcanic activity and possible hazards.
5. Consult, collaborate and Coordinate with the Seismic Research Centre (SRC) and the Soufriere Monitoring Unit 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:

1. 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
2. Notify all persons/organisations listed in Directory A, attached to this procedure.
3. Notify the members of the NEEC, NEC and NEMO Staff of the change in the alert levels and convene an immediate meeting.
4. Request and receive initial reports about the situation from SRC, District Committees and filed Officers.
5. Evaluate the need to activate the NEOC and consult with the Prime Minister.
6. If the NEOC 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.
7. Evaluate the need for evacuation and, if necessary, start evacuating the hazard zone (s) at risk immediately.
8. 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:

Routine:

1. Maintain contact with NEMO to provide information about volcanic activity and hazards.
2. Conduct the monitoring of volcanic activity in St. Vincent and the Grenadines.

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:

1. Inform the Director of NEMO

C. The Prime Minister (OPM) shall:

Routine:

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:

1. Notify the Cabinet Secretary and the Permanent Secretaries about the volcanic activity, damage and/or response measures needed.
2. Based on information received by the Director of the NEEC about the situation determine, along with the Coordinator of NEOC, the need to activate the NEOC.

D. The Deputy Director of NEMO shall:

Routine:

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. To 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 NEOC update the directories of the personnel and organisations they have to notify is updated at least once a year.
4. Assist the Director to revise and update this procedure at least once a year, after a simulation exercise and after a real event.

In the Case of the Change of an Alert Level:

1. Assist the Director with the notification of information about the volcanic activity and response measures needed.

2. If the NEOC is activated, notify Teams #1 and #2.
3. Assist the NEMO Director to update this procedure after a real event has happened.
4. If the NEOC is activated, go to the NEOC.

E. NEMO's Secretary shall:

Routine:

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 ALL organisations annually (Month) requesting confirmation or edits to contact persons and information.

In the Case of the Change of an Alert Level:

1. 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.
2. If the NEOC is activated, assist the Deputy Director to notify Team # 1 and Team # 2.
3. 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:

Routine:

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:

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

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

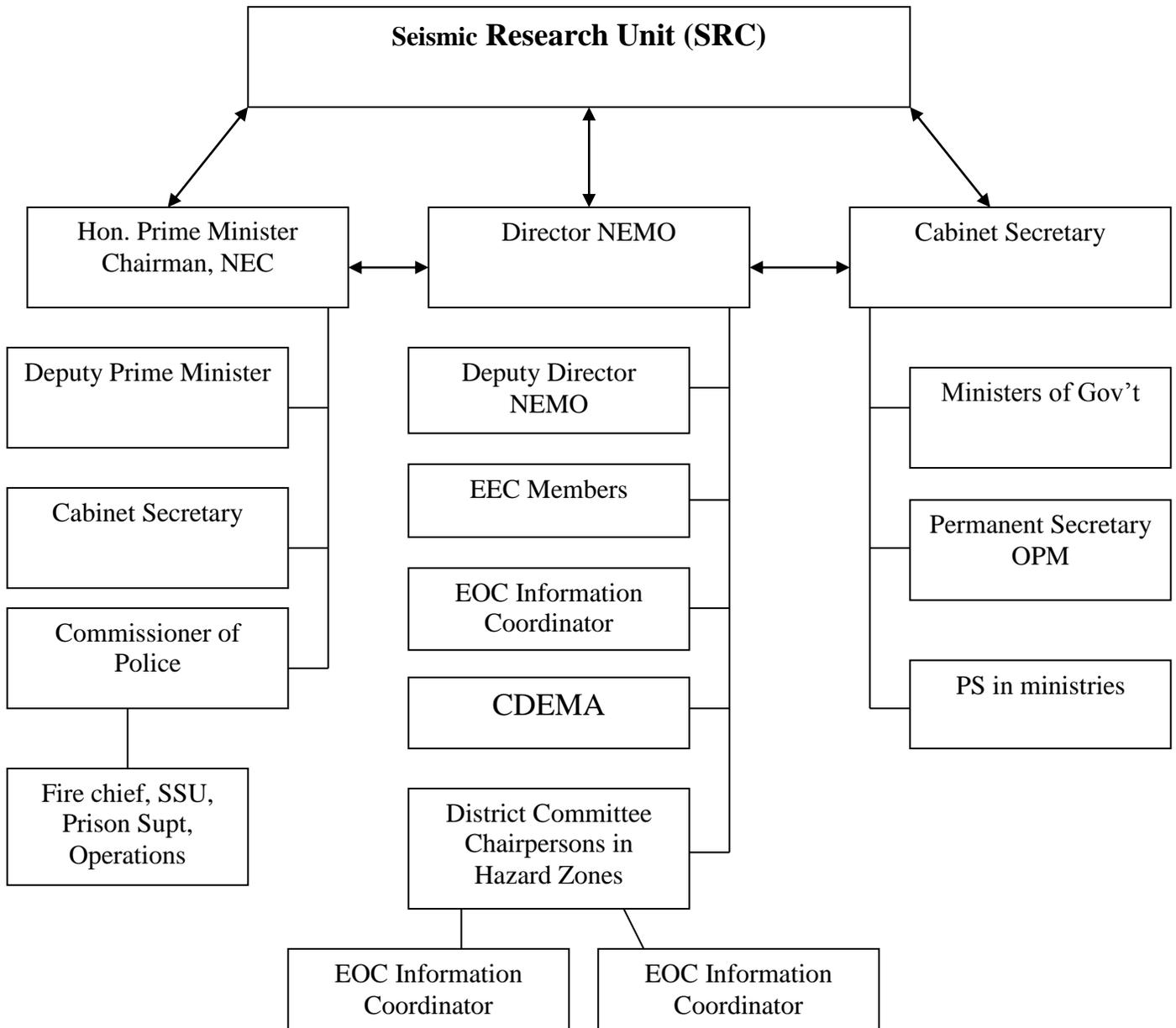
4. Attachment 1: Directories

- Directory A: Persons/agencies to be notified by NEMO Director (to be developed)
- Directory B: Persons to be notified by Prime Minister (OPM) (to be developed)
- Directory C: Persons/organisations to be notified by Chairpersons of the National Disaster Committees. (to be developed)
- Directory D: Team # 1 and Team # 2. To be notified by NEMO's Deputy Director when the NEOC is activated.

4.1 Attachment 2: Alert levels (See Appendix 2)

4.2 Attachment 3: Format for Notification (to be developed)

4.3 Attachment 4: Call out Cascade



END OF PROCEDURE

APPENDIX G: EMERGENCY COMMUNICATIONS PROCEDURE

1. Version

Version 1, September, 2014

2. Objectives

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

3. Responsible for the Procedure:

Main:

The Chairperson of the Emergency Telecommunications Sub-Committee

Secondary:

- Committee Members:
 - Telecommunications Officer
 - The Director of Airports
 - The Commissioner of Police
 - A representative from the SVG Port Authority
 - A representative from the Amateur Radio Club
 - A representative from the Citizens Band Club
 - A representative from LIME
 - A representative from DIGICEL
 - A representative from Flow SVG Ltd
 - The Manager SVG TV
 - A representative from VINLEC
 - A representative from Forestry
 - A representative from CWSA

- NEOC members

Steps of the Procedure

A. The Chairperson of the Emergency Telecommunications Sub-Committee shall:

Routine:

1. Develop a telecommunications plan to ensure that an adequate communications system to serve the communications needs for the NEMO before, during and after an emergency exists.
2. Provide advice to NEMO on telecommunications matters.
3. Provide NEMO with advise to NEMO 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 Secretariat and members of the key response agencies.
5. Nominate radio operator-training officers and monitor their performance.
6. Develop and implement a radio operator-training programme in collaboration with the radio operator-training officers, through the facilities of NEMO and the Amateur Radio Club, Citizens Band Club.
7. Undertake annual reviews and revisions of the radio operator-training programme.
8. Develop and conduct a simulation exercise to test equipment and procedures under the coordination of NEMO Secretariat.
9. Assist in preparing, participating in and assessing joint exercises with all response agencies of NEMO and submit after action reports to the NEMO Secretariat.
10. Maintain a list of human and material resources required to execute and support planning implementation.

In the Case of the Change of an Alert Level:

1. If the NEOC is activated, go to the NEOC and report to NEOC Coordinator.
2. Be in charge of telecommunications to and from the NEOC.
3. Manage all emergency telecommunications.
4. Liaise with the rest of the Sub-Committees and NEOC members in order to respond to their needs.

5. Provide or suggest solutions, for the meeting of the prioritized demands, for existing resources within the framework of the emergency telecommunications plan.
6.
 - a) Establish a roster for Radio Operators for NEMO Director/Coordinator of the NEOC and the length of shift of the radio operator.
 - b) Oversee the management of the roster.
7. Assist the NEOC when required in the rehabilitation of the telecommunications network
8. After the NEOC is deactivated, prepare a report with recommendations regarding telecommunications: equipment, personnel, planning and system improvement.
9. Revise, improve and update this procedure based on lessons learnt.
10. Revise and update the emergency telecommunications plan base on the implementation experience.

B. The Members of the Emergency Telecommunications Sub-Committee shall:

Routine:

1. Assist the Chairperson in providing material and human resources for the design and implementation of the Emergency Telecommunications Plan.
2. Assist the Chairperson in providing material and human resources for training emergency responders at the national and local level.
3. Assist the Chairperson in providing material and human resources for the planning, organisation and execution of the annual telecommunications exercise.
4. Provide telecommunication resources to the NEOC and the NEMO for the better operation of the Plan island-wide.
5. After the NEOC is deactivated, prepare a final report and send it to NEMO.
6. Continue providing telecommunications assistance until back to normal.

C. The NEOC Members shall:

Routine:

1. Identify and provide a list to chairperson of their telecommunications resources.
2. Identify the emergency resource communications needs for the NEOC and the NEMO mechanism and make recommendations for meeting these.
3. Identify the telecommunications resource needs for organisations to communicate between the EOC and their own organisations/ministries.
4. Ensure the communication between the NEOC and other EOCs are functional.
5. Provide information to the Emergency Telecommunications Sub-Committee Chairperson on the telecommunications resources in their own organisation/ agency/ ministry, so that resources for the compilation of the inventory.
6. Participate in the design, implementation and testing of the telecommunications plan.
7. Participate in the planning, implementation, execution and evaluation of an emergency telecommunications exercise program.

In the Case of the Change of an Alert Level:

1. If the NEOC is activated, go to the NEOC with the necessary equipment to communicate from the NEOC to the organisation/ agency/ ministry with whom they have to co-ordinate.
2. Offer their own telecommunication resources to the NEOC and the NEMO as needed.
3. Include in their final report recommendations for the improvement of communications and the Emergency Telecommunications Plan.

4. Attachments:

- 1. Emergency Telecommunications Plan (Status)**
- 2. Inventory of Communication Resources By District**
- 3. List of Trained Ham Operators**

END OF PROCEDURE

APPENDIX H: MEDIA PROCEDURE GUIDE

Coordination of Information Flow

The purpose of the Media Information Center (MIC) is to coordinate the flow of information about volcanic activity and related response issues among agencies, and to provide a single information source for the media, general public and businesses. The MIC is an element of the National Emergency Operations Center (NEOC) where the emergency response is being coordinated.

Communications between agencies and to the media/public must be rapid, accurate and effective.

A MIC provides a forum for the necessary information exchange. Public information between and from all responding agencies, EOCs, political jurisdictions, and the media is handled through this one center, allowing for the coordination of information from all sources, and reducing or eliminating conflicting information and rumors. Temporary and alternate media offices will be identified. All participants will be encouraged to facilitate an efficient flow of information from the MIC.

A MIC may be necessary in one or more of the following circumstances:

- i. Multiple national or local agencies are involved in an incident.
- ii. The volume of media inquiries overwhelms the capacities of the Public Information Officer(s) (PIOs) within the NEOC.
- iii. A large-scale public phone team effort must be mounted over an extended period of time. When conditions warrant, or when a Volcano Advisory (or Alert) **RED** or **ORANGE** is declared, a MIC will be activated by the Director of NEMO.

A MIC must have:

- a) Office space for the PIOs,
- b) Facilities for communication by phone, fax, email and social media
- c) Briefing rooms
- d) Easy access for the media
- e) Security

Recommended Structure of MIC during Volcanic Emergencies

A. Potential Participants:

API
Soufriere Monitoring Unit/SRC
Office of PM
Ministry of Foreign Affairs
NEMO Secretariat
Others as required or conditions dictate

B. Operating Assumptions

1. All information will be coordinated among the MIC staff in order to ensure timely and accurate information flow to the public, to quell rumors and to prevent impediments to the response effort.
2. The MIC will operate under the NEOC Command System.
3. The MIC will adjust its size and scope to match the size and complexity of the incident.
4. National and local agencies may be requested to provide staff for the MIC, including augmentation if needed.
5. The MIC will be established as soon as possible after the issuance of an Information *Statement on the change of the Warning Level to Orange* by the NEC.

APPENDIX I: SURVIVABILITY GUIDE

Survivability Information¹

The Northern Windward and Leeward regions of Saint Vincent have experienced volcanic activity in the past and will certainly experience it in the future. We don't know *when* or *how severely* you will be affected, but we can strive to be prepared. The primary tool to assist your survival of a catastrophic natural event is the knowledge of what to do before, during and after one occurs. We also need to acknowledge that the lives of people who live in areas at risk will be disrupted during periods of volcanic restlessness *even when no actual eruption occurs*.

Learn: Learn whether you live, work, or go to school in a volcanic hazard zone. Learn about all volcanic processes that affect your community

Inquire: Ask local officials how they advise you to respond - before a real emergency. Ask what emergency management plans are in place. Arrange for community briefings by scientists and disaster management officials on the volcano threat, warning systems and supporting arrangements.

Plan: Develop an emergency plan with your family or business to help you during any disruption.

Develop a Family Disaster Plan

- i. Meet with household members to discuss the potential dangers of volcanic eruptions, landslides, lahars (volcanic mudflows), earthquakes, floods and other emergencies.
- ii. Explain how to respond to each.
- iii. Pick a safe meeting place where the family can reunite during or after an emergency, in case you cannot return home after a disaster. Talk about details such as: How do you plan to get to the meeting place? How do you plan to take care of pets?
- iv. Pick someone out of your area, local friend or relative for family members, to call if separated during a disaster.
- v. Each family member should have these phone numbers on a card in their wallet or purse, and know how to call.

¹ This information is organized to help you prepare for *any* emergency and is taken from the American Red Cross Emergency Preparedness Checklist and the Federal Emergency Management Agency's (FEMA) fact sheet on volcanoes. It will need to be regularly reviewed.

- vi. If you have children in school, discuss with the school officials what they plan to do during emergencies such as volcanic eruptions or earthquakes. Also, identify any special needs that may arise with elderly or disabled persons.
- vii. Keep family records in a water and fireproof container; Be prepared to take this with you if an evacuation becomes necessary. Store duplicates off location.
- viii. Have family members take first aid classes.

Assemble a Disaster Supplies Kit for your home, vehicle, work and school

Geologic events such as volcanic eruption or lahars are likely to affect a great number of people over a large area and emergency crews will probably be overwhelmed for a while. Thus, emergency response personnel recommend that you plan on taking care of your family, unassisted, for at least 72 hours (3 days). In reviewing the following list of supplies, remember that you may need to bring these with you in an evacuation; Store them in an easy to carry container such as a backpack or duffel bag.

Home Kit include:

- a) A map showing routes to a safe meeting place the community has chosen.
- b) A card to leave in house with information about intended destination.
- c) Information provided by local authorities about responding to emergencies.
- d) A supply of water (one gallon per person per day). Store water in sealed, unbreakable containers. Identify the storage date and replace regularly.
- e) A supply of nonperishable packaged or canned food and a manual can opener.
- f) A change of clothing, rain gear and sturdy shoes.
- g) Gloves, dust masks and goggles for each family member.
- h) A battery or hand cranked/solar powered radio, flashlight with extra bulb and extra batteries.
- i) Blankets or sleeping bags and plastic trash bags (to help keep them dry).
- j) A first aid kit and manual, and list of family physicians.
- k) Personal hygiene items and prescription medications.
- l) Credit cards and cash, and an extra set of car keys.
- m) A list of important family information: phone numbers, account numbers, the style and serial numbers of medical devices such as pacemakers, etc.

Vehicle Kit includes:

- i. Map of area, preferably with safety zones and evacuation routes marked from home, work and school.
- ii. Bottled water and nonperishable, high energy foods such as granola bars, raisins or dried fruit and peanut butter.
- iii. A change of clothing, rain gear and sturdy shoes.
- iv. A battery or solar powered radio, flashlight with extra bulb and extra batteries.
- v. Gloves, dust masks and goggles.
- vi. Blanket or sleeping bag.
- vii. Tool kit for your vehicle.
- viii. First aid kit and manual.
- ix. Jumper cables, shovel.
- x. Fire extinguisher
- xi. Periodically check the inflation of your spare tire.
- xii. Personal medications.
- xiii. Emergency phone numbers.
- xiv. In addition, if a volcanic eruption appears to be imminent, also carry in your car:
 - a. Spare air filter.
 - b. Spare oil (XXX quarts) and oil filter.
 - c. Spare windshield wiper blades and windshield washing fluid.
 - d. Spare fuel filter and fan belts.

APPENDIX J SAR PROCEDURE GUIDE

1. Introduction

This section describes search and rescue (SAR) operations, possible problem areas, and courses of action in response to a volcanic, or other hazardous event at La Soufriere Volcano. It also addresses implementation of mutual aid, other support and the procedures for acquiring this assistance. It describes those SAR operations that are primarily the Police responsibility, as compared to rescue operations that occur within the jurisdiction of Fire Department.

As addressed in this section, SAR support and assistance is available CDEMA CU and RSS. Community volunteer SAR teams are essential to augment operational and support functions.

2. Objectives

To carry out a coordinated effort of search and rescue operations and support and to ensure the safety of persons who are not injured, but who require evacuation or other assistance, while maintaining the highest degree of safety for rescue personnel.

3. Situation

The scale of search and rescue operations to be carried out after an event, whether forecasted or unanticipated, may be monumental. The ability to deploy personnel and to respond will be directly affected by:

- Time of occurrence
- Time of the year
- Current weather
- Magnitude of event
- Ability of mobilized personnel
- Effect of airborne ash on mobile equipment and personnel
- Road conditions
- Actions of people
- Loss of power
- Potential flooding
- Adequate logistical support
- Communication and control

4. Concept of Operations

Search and rescue operations in this plan interact directly with evacuation and access control operations. In the case of a forecast event, search and rescue will be mobilized ahead of time to carry out operations in concert with evacuations and during the actual occurrence of the event. The Fire Department will assist with evacuation and conduct rescue operations if it is within their capabilities and in coordination with the overall SAR mission. This will reduce duplication and ensure the safest possible response for both victim and rescue personnel.

The general concept of SAR operations require that SAR coordinators direct a coordinated response to minimize loss of life, reduce confusion and redundancy, and rescue and recover disaster victims in the most efficient manner with the closest, most qualified resources. To this end, SAR coordinators will:

- a) Be decisive in directing and utilizing manpower and other resources.
- b) Prioritize response - risk areas with high potential loss of life should be high priority.
- c) Assure a safe and orderly search and rescue operation.
- d) Be responsive to families or relatives who may have lost loved ones.
- e) Carry out the SAR responsibility throughout the entire effected area under one unified effort.
- f) Provide information to the media and public about ongoing SAR operations.

4.1 Hazardous Volcanic Event Imminent or Underway (Volcano Alert)

Upon receipt of official notification that an eruption or other hazardous volcanic event is imminent or is occurring, search and rescue forces will:

- a) Be alerted and directed to mobilize to the primary staging area at the NEOC or other agreed Staging Areas.
- b) Respond to specific mission assignments as directed by the SAR Coordinator.
- c) Assist with evacuations where possible and as needed.
- d) Preposition support equipment.
- e) Utilize respirators and other air filtering breathing devices and eye protection as needed.

5. Available SAR Resources

Fire Department

- Manage, direct and respond, rescue and recovery operations.

Military (SSU and RSS)

- Support logistics and response as appropriate.

CDEMA CU

- Reconstruction, recovery, response, light rescue.

6. Agency Responsibilities and Tasks

Following are the detailed responsibilities and tasks of agencies at the various levels of notification.

6.1.1 NEMO and Key Response Agencies

Following a Notice of Volcanic Unrest:

- a) Identify agency members to the NEOC.
- b) Complete plans and procedures for response to the La Soufriere volcanic hazards threat.
- c) Designate individuals who will be responsible for filling positions in the Incident Command Post as requested.
- d) Provide orientation sessions on updated plans and organizational structure.
- e) Establish call up procedures for all staff.

Hazardous Volcanic Event Likely, But Not Imminent During a period of increased geologic activity (Volcano Advisory):

- a) Designate a liaison to the NEOC.
- b) Update personnel lists.
- c) Conduct surveys on resource availability and reaffirm prior commitments.
- d) Test communications systems and stockpile additional hardware.
- e) Hold exercises for all emergency operations.
- f) Begin procurement of needed resources.
- g) Provide information specialist to support the NEOC PIO.
- h) Provide briefings and direction to all response personnel.
- i) Request all assigned personnel to standby for orders to activate emergency plan.

- j) Take readiness and precautionary actions to compress response time and to safeguard lives, equipment and supplies.

Upon receipt of official notification that a volcanic or other hazardous event is imminent or occurring (Volcano Alert):

- i. Fully mobilize all assigned personnel and activate all or part of the National Volcano Emergency Plan.
- ii. Continually broadcast emergency public information.
- iii. Direct and control emergency response activities in each jurisdiction in accordance with NEOC procedures.
- iv. Assign liaison personnel to the NEOC.

6.1.2 Supporting Agencies

Police – Operations Division

Following a Notice of Volcanic Unrest:

- a) Complete internal plans and procedures.
- b) Provide planning and technical assistance in assembly and evacuation to the threatened
- c) Coordinate with other agencies that will provide Assistance in SAR.
- d) Coordinate mutual aid agreements with RSS, CDEMA and other external parties.
- e) Determine resource requirements.
- f) Issue advisories and policies in consultation with the NEOC.
- g) Prepare and conduct training exercises.

Hazardous Volcanic Event Likely, But Not Imminent (Volcano Advisory):

- a) Convene a meeting of the NEOC
- b) Implement plans for communications support within the affected area.
- c) Support public education programs.
- d) Increase, as needed, the staffing at the NEOC; Support district chairpersons with information.
- e) Ensure that agencies are alerted to potential problems and review their operational responsibilities.
- f) Assign liaison to District EOCs if activated

Hazardous Volcanic Event is imminent or underway (Volcano Alert):

- i. Coordinate the main response to the emergency.
- ii. Coordinate Regional mutual aid.
- iii. Coordinate other external response.

RSVGPF

At all notification levels:

- i. Provide traffic control for the evacuation.
- ii. Assist in access control.
- iii. Ensure security and law and order.

SSU Department

At all notification levels, provide support in the following areas:

- i. Fire
- ii. Security
- iii. Evacuation
- iv. Search and Rescue
- v. MASS Care Sheltering
- vi. Coroner Services
- vii. Public Works

Transportation and Road Clearance Sub-Committee

At all notification levels:

- i. Support traffic control, evacuation, access control and SAR operations.
- ii. Keep roads free of debris.
- iii. Clear evacuation and access routes of debris.

Department of Social Services

At all notification levels:

- i. Coordinate with Ministry of health in supporting to MASS care services.
- ii. Coordinate with the SVGRC and others in the operation for sheltering and other care centers and provide personnel and resources to the centers.

Department of Prisons

At all notification levels:

- i. Ensure safety and security of institutional Populations

6.1.3 Regional Agencies

OECS Aviation Authority

At all notification levels:

- ii. Issue airspace alert warning of restricted or prohibited space.
- iii. Coordinate use of affected airspace by aircraft involved in emergency response and Volcano hazard monitoring.

Seismic Research Centre

At all notification levels:

- i. Monitor the status of seismic and geologic activity in the hazard area.
- ii. Issue alert level notifications and updates.
- iii. Provide liaison to the NEOC in order to provide ongoing information and advice.

Meteorological Service

At all notification levels:

- i. Provide weather forecasts, including wind conditions to the NEOC Structure.
- ii. Issue flood warnings.

APPENDIX K: EMERGENCY TRANSPORTATION PROCEDURE

1. Version

Version 1: September, 2014

2. Objectives

To ensure that transportation is provided to the National Emergency Management Organisation (NEMO) and the NEOC and its members in the case of a volcano emergency in order to conduct and co-ordinate the national emergency response as needed.

3. Responsible for the Procedure:

Routine:

Chairperson of the Transport and Road Clearance Sub-Committee

Secondary:

- Committee members:
 - The Engineer, Roads Division - Chairperson
 - The Manager of BRAGSA - Deputy Chair
 - The Commissioner of Police
 - The Director of Airports
 - A representative from the National Omni-bus Association
 - A representative from a Motorcycle Club
 - A representative from the Ham and C.B. radio clubs
 - Manager of Port Authority
 - Representative from Hospital Administration/Ambulance Service

- NEOC members

Steps of the Procedure

A. The Chairperson of the Transport and Road Clearance Sub-Committee shall:

Routine:

1. Ensure the regular review and updating of the procedure.
2. Maintain a list of available land, sea and air transport resources from the public and private sectors.
3. Maintain links with District Disaster Committees and District Transportation Sub-Committees.
4. Update the list of transportation resources quarterly.
5. Submit the list of transportation resources quarterly to NEMO Director.
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:

1. If the NEOC is activated, go to the NEOC and report to the Coordinator or person in charge.
2. Liaise with other NEOC members in order to respond to their transport needs.
3. Co-ordinate with NEMO Director in order to provide transportation to EOC members when needed.
4. Provide aerial/sea transport for the initial aerial damage assessment when requested, by NEMO. Transport should be provided for at least 4-8 persons as prioritized below:

Group 1:

1. Prime Minister
2. Damage Assessment and Needs Analysis Sub-Committee Chairperson
3. Rehabilitation and Reconstruction Sub-Committee Chairperson
4. Ministry of Agriculture representative or SRU if on island
5. Agency for Public Information (API) representative (cameraman)

Group 2:

1. Police Commissioner.
 2. Chief Medical Officer.
 3. API representative (cameraman)
 4. Forestry Department
 5. Agriculture Department
5. 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.

6. Co-ordinate with NEMO and other NEOC members to provide transportation of search and rescue personnel, if needed.
7. Coordinate with the National Omnibus Association, Shelter and Shelter Management Sub-Committee and the Emergency Supplies Sub-Committee Chairpersons to provide transportation for:
 - a) Movement of persons from threatened communities to shelters, safe areas or relocation facilities;
 - b) Relief and rehabilitation supplies from the docks and airport to storage areas, warehouses and shelters.
8. Co-ordinate with Police and the Shelter Management Sub-Committee Chairperson to provide transportation for land and sea evacuation.
9. Co-ordinate with the National Omnibus Association, Police and Ministry of Tourism to provide transportation for air/ sea evacuation of visitors out of the country if needed.
10. Co-ordinate with NEMO and other NEOC members for transportation of fuel to service points if needed.
11. Co-ordinate with the Health Services Sub-Committee's Chairpersons for the transportation of injured inside or outside of the hazard zone or the island if needed.
12. Co-ordinate with the Police and the Health Services Sub-Committee's Chairpersons and funeral homes for the transportation of dead people to Hospitals according to the 'St. Vincent and the Grenadines National Disaster Management Plan.
13. Co-ordinate with the Emergency Health Services Sub-Committee's Chairpersons and with the Ministry of Agriculture to provide transportation for dead animals.
14. Co-ordinate with the Rehabilitation and Reconstruction Sub-Committee Chairperson to provide transportation to assist in road clearing.
15. Co-ordinate with the Chairpersons of the Disaster Committees of Rehabilitation and Reconstruction, Shelter and Shelter Management and Damage and Needs Assessment and, if needed, with the Solid Waste Management Unit to provide transportation for debris and garbage collection from shelters or safe areas.
16. Take break after 12 hours in the NEOC and be substituted by the Deputy Chairperson. Resume Chairmanship within 12 hours or as requested.
17. Always brief and be briefed by the Deputy Chairperson when arriving and leaving the NEOC.

18. After the NEOC is deactivated, prepare a report that includes situations faced, activities executed, results and recommendations and send it to NEMO Director.
19. Provide transportation resources as needed until the situation is back to normal.
20. Revise and update this procedure quarterly.

B. The Members of the Transportation and Road Clearance Sub-Committee shall:

Routine:

1. Assist the Chairperson in the elaboration and yearly update of the transport list by providing the number, type, capacity, location and operational status of their transport and of their available human resources (drivers, operators, pilots, etc.)
2. Make a commitment to provide transportation to the Transportation and Road Clearance Sub-Committee, the NEOC and NEMO in the case of an emergency and/or a disaster. If necessary, prepare a Memoranda of Understanding specifying the conditions under which the transportation is provided.
3. Provide transportation resources to the Chairperson as requested from the NEOC.
4. Make recommendations for the future improvement of transportation resources and systems under emergencies and disasters.

In the Case of the Change of an Alert Level:

C. The NEOC Members shall:

Routine:

1. Provide information to the Chairperson for the elaboration and updating of the list of transportation resources list (Inventory).
2. Keep their own lists of transportation vehicles updated quarterly.

In the Case of the Change of an Alert Level:

1. Provide transportation resources to NEMO through the NEOC and/or to the Transportation and Road Clearance Sub-Committee Chairperson as needed.

4. Attachments (Not shown)

4.1 Attachment 1.- List of transport available

Land
Sea
Air

4.2 Attachment 2.- Directory

Land transport
Sea transport
Air transport

4.3 Attachment 3.- Policies and Guidelines for the Adequate Management of Dead Bodies in Disaster in St. Vincent and the Grenadines

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

4.5 Attachment 5.- Evacuation Plan for Hazard Zone 1

4.6 Attachment 6: Evacuation Plan Hazard Zone 2

4.7 Directory of Funeral Homes

4.8 Map of the Road Network

END OF PROCEDURE

APPENDIX L: National Emergency Operations Centre (NEOC) Procedure

1. Version:

Version 1 September, 2014

2. Objectives

To activate, operate and deactivate the National Emergency Operations Centre (NEOC), located in NEMO Headquarters, Old Montrose, in the case of volcanic activity in St. Vincent and the Grenadines.

3. Responsible for the Procedure:

Main:

The Coordinator of NEOC

Secondary:

- The Deputy Coordinator of NEOC
- The Cabinet Secretary
- The Members of the NEOC
- NEMO's Secretary
- Operations Officer
- Message Coordinator
- Radio operators
- Telephone operators
- Journal clerks
- Plotters
- Media officer
- Chief Shelter Manager
- Police Operations

Support Staff:

- Translators
- Secretary/typist
- Drivers
- Cooks
- Office Attendant
- Janitors
- IT Technicians

4. Steps of the Procedure

A. The Coordinator of NEOC shall

Routine:

1. Ensure the National Emergency Operations Centre (NEOC) 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 NEOC.
3. Ensure that the NEOC 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 (Hazardous volcano event appears imminent or is underway):

1. Receive from the Seismic Research Unit information about the volcanic activity.
2. Consult with the Director NEMO and other NEEC members as necessary, about the activation of the NEOC based on the reports about volcanic activity, damage and response measures needed.
3. If the situation does not demand the activation of the NEOC, co-ordinate the response from NEMO's office as needed.
4. If the situation demands the activation of the NEOC proceed to notify the NEOC members in Team # 1, as described in the Notification Procedure.

5. Request from the Police, personnel to be sent immediately to the NEOC to provide security.
6. Request from the Emergency Telecommunications Sub-Committee Chairperson one Amateur Radio Operator to be sent immediately to the NEOC.
7. Receive and brief the NEOC members at their arrival if he/she is not present.
8. Ensure that NEOC members are set up and functional.
9. Coordinate all activities in the NEOC.
10. During his/her absence from the NEOC, be substituted by the Deputy NEOC Coordinator.
11. Ensure that immediately after the NEOC is activated, that the Transport and Road Clearance Sub-Committee provides aerial transportation for the initial damage assessment flight, if needed.
12. Receive information from the NEOC members after the initial damage assessment flight.
13. Receive status updates of incoming messages from the runner.
14. Analyse and prioritise incoming messages. Based on the required timeframe and the threat of immediate danger to life and property.
15. Verify that the messages were given to the right persons by the runner; rectify if necessary; demand action from other NEOC members.
16. Read aloud all incoming messages after reviewing, based on discretion.
17. Request information from NEOC members responsible for action to be taken.
18. Be informed verbally by the organisation responsible for the response for each message.
19. Review continuously the incoming messages to ensure follow up and for the updating of information about actions taken.
20. Ensure that the EEC received regular updates and recommendations for decisions in respect of policy on resources requirements.
21. With the assistance of NEOC Members and Staff of NEMO Secretariat ensure that Team 2 is notified and of the NEOC activation and of the expected time for it to be at the NEOC.

22. After 12 hours of NEOC operation, with the assistance of all NEOC members and NEMO personnel, ensure that Team 2 is notified and called to the NEOC.
23. After 12 hours of operation request a report from all members of the NEOC once both NEOC teams are present.
24. After 12 hours of activation of the NEOC hand responsibilities over to the Deputy Coordinator NEOC after briefing him/her.
25. Resume command of the NEOC at agreed time and be briefed by the Deputy Coordinator/person in charge.
26. After 24 hours of NEOC activation request a report from all members of the NEOC with both NEOC Teams present.
27. After 24 hours, request reports from all NEOC members every 12 hours with the presence of both two teams.
28. After 24 hours of activation of the NEOC, in consultation with the rest of the NEOC members, assess the situation and recommend to the NEEC whether to continue the operations or deactivate the NEOC.
29. After the NEOC deactivation, based on the disaster situation and after consulting with the rest of the NEOC Members, decide whether to recommend the activation of the Rehabilitation and Reconstruction Committee to the NEEC.

B. The Deputy Coordinator of NEOC shall:

Routine:

1. Be always prepared to assist the Coordinator of NEOC in the case of a disaster and in the activation of the NEOC.
2. Be trained to substitute for the Coordinator of NEOC during his/her absence.
3. Participate in NEOC simulation exercises in which his/her performance in the NEOC is tested.

In the Case of the Change of an Alert Level:

1. After the NEOC has been activated, contact the Coordinator of NEOC for guidance on requirements.
2. Ensure to on arriving at the NEOC; be briefed by the Coordinator of NEOC on the situation and pending issues.
3. Assume the role of Coordinator of NEOC after 12 hours of activation or as requested.

4. After 12 hours of being in the NEOC, be substituted by Coordinator of NEOC or other NEOC members as may be required.
5. Before leaving the NEOC, brief NEMO's Director on the situation and pending issues.
6. Repeat steps 5 to 8 until deactivation of NEOC.
7. Revise and update this procedure after every real event.

C. The EEC shall:

Routine:

1. Familiar with the National Volcano Emergency Plan and its Emergency Procedures.
2. Participate in simulation exercises that test the NEOC and be informed of their evaluation.

In the Case of the Change of an Alert Level:

1. Receive information from NEOC Coordinator about the situation.
2. Be consulted by the Coordinator of NEOC about the decision of activation.
3. After the decision of activating the NEOC has been taken, go to the NEOC.
4. When arriving to the NEOC, be briefed by the NEOC Coordinator.
5. Determine whether to stay at the NEOC and agree on modes of being brief.
6. Be available to advise the Coordinator of NEOC of any situation that demands its opinion/decision or that of Prime Minister.
7. Chairperson of NEEC contact and consult the Prime Minister as he/she thinks fit regarding any message and situation that demands the Prime Minister's decision.
8. After 24 hours of activation review documentations from the Coordinator of NEOC on whether to continue or deactivate the NEOC.

D. The Members of the NEOC shall:

Routine:

1. Know the St. Vincent and the Grenadines Volcano Emergency Plan and its procedures and participate in the planning process by revising and updating them regularly under the coordination of NEMO's Director.
2. Know their role in the NEOC and determine the resources required to execute these inclusive of equipment, materials, stationary, information and personnel.
3. Meet regularly as NEOC Committee to consider and undertake actions to improve the plan and its procedures, review roles and responsibilities for preparedness and response activities assigned.
4. As a Committee, define mechanisms of co-ordination and communication in the case of an emergency or a disaster, particularly from the Chairperson in the NEOC to all the members.
5. Ensure that all of the resources required for the NEOC are in place and available on activation. These will include:
 - i. Information
 - ii. Plan and procedures
 - iii. Formats
 - iv. Forms
 - v. Maps
 - vi. Stationery
 - vii. Communications equipment
 - viii. Directories
 - ix. Inventories

In the Case of the Change of an Alert Level:

1. After the decision to activate the NEOC has been taken, go to the NEOC.
6. Before going to the NEOC, or immediately on arriving there, alert the organisations/persons that they would have to contact to be on stand-by and wait instructions from the NEOC.
7. Arrive at the NEOC be ready to be operational:
 - i. Information
 - ii. Plan and procedures
 - iii. Formats
 - iv. Forms
 - v. Maps
 - vi. Stationery
 - vii. Communications equipment
 - viii. Directories
 - ix. Inventories

8. Report to the Coordinator of NEOC on arrival.
9. Be briefed on the situation and pending issues.
10. Take the seat or place assigned in the NEOC.
11. Prepare dips (special, with boxes or with folders) for his/her incoming, pending and outgoing messages.
12. Respond to every message that demands their attention.
13. Communicate with other members in the NEOC for joint actions that have to be taken or for gathering of information.
14. Write down in the log sheet the action taken and return it to the Chairperson only when the action is finished.
15. Establish contact with their counterparts in the EOCs of Committees/Ministries/Organisations/sectors.
16. Besides returning the messages with the written action taken, read the message and the action taken aloud so the Coordinator and the rest of the NEOC would know about it.
17. Present a status report on the situation every 12 hours or as required to the Coordinator and the NEOC.
18. In the case of a visit of the Prime Minister to the NEOC, or whenever a report is requested by the Prime Minister or by the NEOC Coordinator, present a full situation report for his/her Committee /Ministry/ Organisation/ sector to include, damage assessment, actions taken, results and recommendations.
19. Brief his/her substitute every time before leaving the NEOC in the change of shifts.
20. Be briefed every time arriving to the NEOC.
21. At all times, provide information and resources to the other NEOC members.
22. Provide information and opinion for the decision, when needed, about the deactivation of the NEOC.
23. After the deactivation of the NEOC, notify the members of his/her organisation/ Ministry/ about it.
24. Participate as a member of the 'Task Force' if it is needed.

E. NEMO's Secretary shall:

Routine:

1. Assist the Coordinator and the Deputy Coordinator to ensure that the NEOC is kept in good condition.
2. Assist the Coordinator and the Deputy Coordinator of NEOC to ensure that the NEOC 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:

1. If the NEOC is activated, go to the NEOC.
2. Report in the NEOC to the Coordinator.
3. Be in charge of the management of internal EOC supplies: food, stationery, photocopies, and others needed by the NEOC.
4. Provide the NEOC Coordinator with information needed from NEMO Secretariat for the operations of the NEOC: directories, files, etc.
5. Assist the Message Receiver (Runner) with the copying and distribution of messages to the NEOC members.
6. Assist the NEOC members with making the log sheets available to the NEOC Coordinator.
7. Assist the Coordinator and Deputy Coordinator of the NEOC in any other need.
8. Assist the Coordinator and the Deputy Coordinator in the deactivation of the NEOC.
9. After a maximum of 12 hours be prepared to be substituted.

10. Co-ordinate the administrative staff when in the NEOC.

F. The Message Receiver (Runner) shall:

Routine:

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:

1. If the NEOC has been activated, go to the NEOC.
2. Ensure that enough copies of the log sheet are available.
3. Once in the NEOC report to the Coordinator.
4. Contact the Radio Operator.
5. Find out about any messages that have been received in the NEOC and their status.
6. Be informed about every message that is received in the NEOC.
7. Log every message received in the NEOC in the log sheet form (Attachment 5.1).
8. Give copies of the log sheet for action to be taken to:
 - Coordinator
 - Members of the NEOC
 - Main NEOC member responsible for action
 - Secondary NEOC members responsible for action
 - Other NEOC members, for their information
 - Situation Reporter (s)
9. If the message involves information about damage, always give a copy to the damage assessment Chairperson and to the logger.
10. Shout: 'Incoming!' every time that he/she delivers a message to the NEOC Chairperson or to any NEOC member.
11. Assist the NEOC Coordinator to have a sequential record of all log sheets including incoming messages and action taken by NEOC members.

12. After the NEOC is deactivated, update and collate the log sheets and deliver them to the Coordinator of the NEOC.

G. The Situation Reporter (s) shall:

Routine:

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:

1. If the NEOC is activated go to the NEOC.
2. Once in the NEOC report to the NEOC Coordinator.
3. Ensure that the NEOC has enough situation report sheets to operate.
4. Assist in the NEOC set up and ensure that situation report sheets are available and visible to all following the events and actions taken.
5. Prepare dips (with boxes or with folders) for incoming, pending and outgoing (or logged) messages.
6. Clarify with the NEOC Coordinator or any other member on any doubts about any messages received or action taken.
7. Prepare interim report at least every six hours or as needed by NEOC Coordinator according to the situation.
8. After 12 hours in the NEOC be prepared for a briefing to leave after briefing the substitute.
9. Resume role in the NEOC after the agreed period for break.
10. Prepare a final report and give a copy to NEOC Coordinator.

H. The Logger shall:

Permanent:

1. Lead the review and improvement of the situation report sheets.

2. Participate in simulation exercises.

In the Case of the Change of an Alert Level:

1. If the NEOC is activated go to the NEOC.
2. Once in the NEOC report to the NEOC Coordinator.
3. Ensure that enough damage assessment report sheets are in the NEOC.
4. Assist in the NEOC set up and ensure that damage report sheets are available and visible for all to follow the events and actions taken.
5. Prepare dips (with boxes or with folders) for incoming, pending and outgoing (or logged) messages.
6. Work closely with the Situation Reporter and share log sheets.
7. Clarify with the NEOC Coordinator or any member on any doubts about any messages or action taken.
8. After 12 hours in the NEOC prepare a briefing for the substitute/alternate.
9. Return to the NEOC as required.

5. Attachments:

5.1 Log sheet (messages)

EVENT LOG _____ Page ___/___

Form 2

Person reporting:

Date:

ITEM No.:	TIME Entered	FROM	TO	EVENT Description	ACTION

5.2 Situation report sheet

SITUATION REPORT (SITREP) Form 1

Area or Agency: Date:

Person reporting: Time:

PEOPLE	Dead	1	No.
	Missing	2	No.
	Hospitalised	3	No.
	Sick / Injured (not hospitalised)	4	No.
	Homeless / evacuated	5	No.
PERMANENT DWELLINGS	Destroyed	6	No.
	Damaged but habitable	7	No.
	Damaged but inhabitable	8	No.
BUSINESSES	Destroyed	9	No.
	Damaged but operable	10	No.
	Damaged inoperable	11	No.
UTILITIES	Damaged or Destroyed	12	No.
SCHOOLS	Damaged or Destroyed	13	No.

1. General comments on damages to businesses, industries, roads, public utilities, farms, Schools, hospitals etc.

2. Comments on community response

3. Assistance required

5.3 Damage assessment sheet (not shown)

END OF PROCEDURE

APPENDIX M: DEFINITION OF VOLCANO HAZARDS

Volcanoes produce a wide variety of natural hazards that can kill people and destroy property. Some hazards, such as lahars and landslides, can occur even when a volcano is not erupting.

DEFINITIONS

Lava Flows and Domes

Lava is molten rock that flows onto the earth's surface. Lava flows move downslope away from a vent and bury or burn everything in their paths. Lava domes form when lava piles up over a vent.

Pyroclastic Flows

Pyroclastic flows are high speed avalanches of hot rock, gas, and ash that are formed by the collapse of lava domes or eruption columns. They can move up to 100 miles per hour and have temperatures up to 1500°F. They are lethal, burning, burying, or asphyxiating all in their paths.

Tephra

Explosive eruptions blast lava fragments (tephra) and gas into the air. Tephra can also be carried aloft in billowing ash clouds above pyroclastic flows. Large fragments fall to the ground close to the volcano, but smaller fragments (ash) can travel hundreds to thousands of miles downwind.

Debris Avalanches and Lahars

Debris avalanches are rapid landslides of rock, soil and overlying vegetation, snow or ice. Lahars are fast-moving slurries of rock, mud, and water that move down valleys. Lahars form when pyroclastic flows mobilize loose debris on the flanks of volcanoes. Both lahars and debris avalanches can bury, move, or smash objects in their path.

