

World Bank/OECS Emergency Recovery and Disaster Management Project

Government of Saint Lucia

Hurricane Response Plan

Document of the Saint Lucia National Emergency Management Plan

Approved 1996 Revised June 2002

[sgd] Victor Poyotte

Approved by [NEMAC] Approved by [Cabinet]

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PART I GENERAL INFORMATION

1.- Name of the Plan

The name of this plan is 'The Saint Lucia National Hurricane Plan'

In this document, it will be referred to as 'the Hurricane Plan', 'the Plan' or by its acronyms:

✓ SLNEMP/HP, or ✓ HP.

The Saint Lucia National Hurricane Plan is also subsection 01 of section 03 (Emergency Plans) of the Saint Lucia National Emergency Management Plan. [SLU/NEMP-03-01]

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

Below we present the components/sections of the National Plan.

All sections of the National Emergency Management Plan (of which the Hurricane Plan is part of) were revised by the Emergency Planning and Mitigation Advisor, Mr. Arturo Lopez-Portillo with the collaboration of the stakeholders and under the co-ordination of the Director of NEMO; Section 04 (subsections 01, 02 y 04) and Subsections 01 and 02 of section 05 (Specific plans) were designed by the Disaster Business Advisor, Mr. William Gowen.

Name of section	Name of Sub-section
The Saint Lucia	
National Emergency	
Management Plan	
Policies	
	Donations and Importation of Relief Supplies Policy
	Emergency Shelter Management Policy
	Emergency Housing Policy
	Mitigation Policy
National Plans	
	The Saint Lucia National Hurricane Plan
	The Saint Lucia National Earthquake Plan
	The Saint Lucia National Volcanic Eruption Plan
	The Saint Lucia Oil Spill Contingency Plan
	The Saint Lucia National Hazardous Materials Plan
	The Saint Lucia National Mitigation Plan
	The Saint Lucia Stress Response Team Plan
Sectoral Plans	
	The Ministry of Communications, Works, Transport and
	Public Utilities Plan
	The Saint Lucia National Emergency Health Sector Plan
	The Hospitality Industry Crisis Management Plan
	The Saint Lucia Private Sector Response Plan
Specific Plans	
	The Saint Lucia Prison Emergency Plan
	The Port Authority Cruise Line Ships Plan
	The Saint Lucia Seaports Contingency Plan

Table 1.1 The Saint Lucia National Emergency Management Plan SLU/NEMP

2.- Number and Date of Revision.

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

The Hurricane Plan and its procedures were revised by all the stakeholders: Chairpersons of the National Disaster Committees and key Governmental Officers involved in the plan and procedures make comments to them.

An important event to test the Hurricane Plan was the Command Post Exercise held in Tegucigalpa, Honduras, in February 2002, where the operations of the Saint Lucia National Emergency Operations Centre (EOC) were tested for five days under a simulation exercise with the attendance of 18 participants from Saint Lucia; participants who would be in the real EOC in a real event.

The version presented here is Version Number 1 from June 29th, 2002 (or the 2002 version) produced after the last revision in a NEMAC meeting chaired by Dr. Kenny Anthony, Prime Minister of Saint Lucia, that had the participation of the Chairpersons of the National Disaster Committees and representatives from the Police and Fire Service.

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

Future versions have to be prepared according to the DPRA every year as mentioned in Part III 8 (1)

3.- Acronyms/Abbreviations

ADRA	The Adventist Relief Agency.
CARICOM	The Caribbean Community
Caritas	Caritas Internationalis. Catholic Organisations Relief.
CDB	Caribbean Development Bank.
CDERA	Caribbean Disaster Emergency Response Agency
CDRU	CARICOM Disaster Relief Unit
CEHI	Caribbean Environmental Health Institute
CIDA	The Canadian International Development Agency
C&W	Cable and Wireless.
CMU	Hospitality Industry Crisis Management Unit
CMC	Hospitality Industry Crisis Management Committee
DANA	Damage and Needs Assessment
DFID	Department for International Development (UK)
DPRA	Disaster Preparedness and Response Act (Saint Lucia)
ECDG	Eastern Caribbean Donor Group
ECHO	European Community Humanitarian Office
EOC	Emergency Operations Centre
FAHUM	Humanitarian Allied Forces Exercise

GIS	Casemannical Information Systems
GOSL	Geographical Information Systems Government of Saint Lucia
GPS	Global Positioning System
HAZMAT	Hazardous Materials
H&W	Health and Welfare
HF	High Frequency
HP	Saint Lucia National Hurricane Plan
HTS	Helen Television System
IADB	Inter American Development Bank
ICS	Incident Command System
IEOC	International Emergency Operations Centre (for and in Saint Lucia)
LUCELEC	Saint Lucia Electricity Services LTD.
MSF	Médecins sans Frontièrs.
MOH	Ministry of Health.
NDO/NDMO	National Disaster Management Organisation
NDMP	Saint Lucia National Disaster Management Plan (1996)
NEMAC	National Emergency Management Advisory Committee
NEMO	National Emergency Management Office
NEOC	National Emergency Operations Centre
NHC	National Hurricane Centre (US)
NHMC	National Hazard Mitigation Council
NOAA	National Oceanic and Atmospheric Administration (US).
OCHA	UN Office for the Co-ordination of Humanitarian Affairs
OECS	Organisation of Eastern Caribbean States
OFDA	US Office of Foreign Disaster Assistance
OPAC	Oil Pollution Action Committee
OSC	On Scene Commander
Oxfam	Oxfam International. Confederation of NGO's for Relief.
РАНО	The Pan American Health Organisation
PM	The Honourable Prime Minister of Saint Lucia.
PS	Permanent Secretary.
PEOC	Private Sector Emergency Operations Centre (in Saint Lucia).
RCI	Radio Caribbean International
REMPEITC	The Regional Marine Pollution Emergency Information and Training
	Centre Wider Caribbean. International Maritime Organisation.
RSL	Radio Saint Lucia
RSLPF	Royal Saint Lucia Police Force
RSS	Regional Security System
RSTS	Relief Supplies Tracking System
SITREP	Situation Reports
SLASPA	Saint Lucia Air and Sea Ports Authority
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Ltd.

SLBGA	Saint Lucia Banana Growers Association
SLHTA	Saint Lucia Hotel and Tourism Association
SLTB	Saint Lucia Tourist Board
SLU-GIS	Government Information Services
SLUNEMP	Saint Lucia National Emergency Plan
SOP	Standard Operating Procedure
Southcom	The United States Southern Command
SRU	Seismic Research Unit
SUMA	Supply Management (software)
UN	The United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UWI	University of the West Indies
WASCO	Water Supply Company (Saint Lucia)
WB	The World Bank
WFP	World Food Programme
WIBDECO	Windward Islands Banana Development and Exporting Company

4.- Definitions.

The terms "hurricane" and "typhoon" are regionally specific names for a strong "tropical cyclone". A tropical cyclone is the generic term for a non-frontal synoptic scale low-pressure system over tropical or sub-tropical waters with organized convection (i.e. thunderstorm activity) and definite cyclonic surface wind circulation (*Holland 1993*).

Tropical cyclones with maximum sustained winds of less than 17 m/s (34 kt, 39 mph) are called "tropical depressions". Once the tropical cyclone reaches winds of at least 17 m/s they are typically called a "tropical storm" and assigned a name. If winds reach 33 m/s (64 kt, 74 mph)), then they are called: a "hurricane" (the North Atlantic Ocean, the Northeast Pacific Ocean east of the dateline, or the South Pacific Ocean east of 160E); a "typhoon" (the Northwest Pacific Ocean west of the dateline); a "severe tropical cyclone" (the Southwest Pacific Ocean west of 160E or Southeast Indian Ocean east of 90E); a "severe cyclonic storm" (the North Indian Ocean); and a "tropical cyclone" (the Southwest Indian Ocean) (*Neumann 1993*).

Note that just the definition of "maximum sustained surface winds" depends upon who is taking the measurements. The World Meteorology Organization guidelines suggest utilizing a 10 min average to get a sustained measurement. Most countries utilize this as the standard. However, the National Hurricane Center (NHC) and the Joint Typhoon Warning Center (JTWC) of the USA use a 1 min averaging period to get sustained winds. This difference may provide complications in comparing the statistics from one basin to another as using a smaller averaging period may slightly raise the number of occurrences (*Neumann*).

Taken from the Atlantic Oceanographic and Meteorological Laboratory of the National Oceanic and Atmospheric Administration (NOAA) website: http://www.aoml.noaa.gov/; for more information check the website and/or see Chapter 13 'Hazard Description' of this Plan.

5.- Introduction

As mentioned in Section 2 of this Plan, Name and Date of Version, the HP is a totally new plan. It was designed within the World Bank/OECS Emergency Recovery and Disaster Management Project. The design of the Plan was based on the document 'Guidelines for the Revision of Emergency/Recovery Plans. November, 2001' also designed by the Emergency Planning and Mitigation Advisor of the project. These guidelines consider 26 sections that would make any emergency plan a complete plan by taking into consideration:

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

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

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

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

The structure of the plan, by being based on the above-mentioned guidelines, intends to be the same for other hazards within the NEMP itself and, also, a first step to homologate emergency plans not only within the country, but also at the Regional and International levels.

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

The emergency procedures of this plan have been written also according to guidelines designed by the Emergency Planning and Mitigation Advisor: "Writing Standard Operating Procedures (SOPs) Version 4, December 1st, 2001". This will ensure, again, that procedures, as well as plans, will be similar in structure (contents, components, sequence of the steps, etc.) as a very important factor to homologate emergency procedures in Saint Lucia and in the Region.

The emergency procedures have been assigned different numbers according to the specific emergency/recovery activity they are written for. This intends to make them easy to revise and update; also, this will allow the having of specific procedures within specific groups of procedures; *v.gr.*, Search and Rescue Procedure could have several specific procedures for specific situations: Land Search and Rescue (HP-400), Maritime Search and Rescue (HP-401) etc.; likewise, a general procedure, for instance District Disaster Committee General Procedure (HP-950) could have one specific procedure for each one of the District Disaster Committees (HP-951 to HP-968). Several other examples could be given. The important point here is that we can have as many emergency procedures as needed and as agreed by the emergency planning organisations within the planning process.

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

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

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

In conclusion, the Hurricane Plan intends to be a comprehensive plan and an easy plan to be read, revised, tested, executed and updated.

6.- Objectives.

6.1. General.

To protect Saint Lucia and her people, institutions, infrastructure, services, resources, environment and economy in the event of the impact and consequences of tropical cyclones.

6.2. Specific.

To describe the possible characteristics of tropical cyclones that could affect Saint Lucia.

To describe the possible effects the impact of tropical cyclones could cause in Saint Lucia.

To establish the need of an emergency response, an emergency plan and a permanent planning process against tropical cyclones in Saint Lucia.

To determine the activities that will be executed by the organisations in Saint Lucia to protect and rescue her people, institutions, infrastructure, services, resources, environment and economy in the case of a threat or impact of a tropical cyclone.

To assign responsibilities to governmental, private and social organisations in Saint Lucia for the planning, testing, execution and evaluation of the emergency activities identified.

To determine the sequence of the emergency/ recovery activities that will be executed during the threat and/or impact of tropical cyclones in order to optimise resources and increase the effectiveness of the response.

To establish a permanent planning process in Saint Lucia, at all levels, that involves all the stakeholders in the revision and updating of the plan, its emergency procedures and the resources needed for their implementation.

To have a planning tool that guides the training of personnel and testing of the plan according to specific emergency/recovery activities considered.

To have the planning tool to keep records and the evaluations of real events caused by tropical cyclones in Saint Lucia and to include the results, recommendations and lessons learned in the plan itself so they will not be repeated again.

7.- Legal Framework.

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

7.1.- Disaster Committees.

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

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

7.2. Revision of the Plan

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

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

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

7.3 Contents of the Plan

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

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

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

Article from	Table 7.1 Key activities that have to be included in the national plan	
Section 2 of the	as emergency procedures.	
DPRA		
a	General. For public officers, statutory bodies and local government units	
	to perform functions related to mitigation, preparedness, response and	
	recovery	
b	Co-ordination. Co-ordinating the National Plan and the plans from those	
	mentioned in (a) above.	
С	Warning. Alert. Notification.	
d	Inventories of services, systems and supplies.	
е	EOC. Mobilising services and systems including provision of manpower	
	for EOC and for the families of those providing manpower.	
f	Protection and restoration of communications. Nationally and	
	internationally.	
g	Information. Public and those mentioned in (a) above.	
h	Supply management. Food, water, clothing and medical supplies.	
i	Fire.	
	Epidemics.	
j	Shelter Management.	
k	Co-operation with international organisations and governments.	
1	Supply Management. Accepting and facilitating the distribution of	
	volunteer services for relief supply.	
m	Evacuation. Evacuation of all the residents of any area desirable in the	
	event of a disaster emergency.	
n	Transportation. Communications. Supply Management.	
	Requisitioning private propertyAnd for assessing and paying	
	compensation.	
0	Security. Protection of life and property from looting and riotous	
	behaviour.	

7.4. Threatened Disaster Alerts.

For Threatened Disaster Alerts:

Part VII, 27 (1) "For the purpose of this Act, a threatened disaster alert exists when:

(a) the Governor General declares by Proclamation and on the advice of the Prime Minister after the Prime Minister has consulted or been advised by the Director under section (3),

that there is a substantial prospect that a disaster of a kind in column 1 of the Second Schedule will strike within the applicable period in column 2 of that Schedule; or

(b) an agency, whether within Saint Lucia or otherwise, certified by the Director as an Accredited Disaster Notification Service under subsection (4), broadcasts or otherwise publishes a formal announcement warning persons in Saint Lucia of the threat of the strike of a disaster of a kind in column 1 of the Second Schedule within the applicable period in column 2 of that Schedule.

(2) The Governor General may by declaration on the same advice and after the same consultation as is provided in subsection (1) (a) declare that notwithstanding such announcement Saint Lucia is not in a state of threatened disaster alert.

(3) The Director shall advise the Prime Minister on request, and at any time he considers appropriate, when there is a substantial prospect that a disaster of any kind in column 1 of the Second Schedule will strike within the applicable period in column 2 of that Schedule.

(4) The Director may certify any agency, whether within Saint Lucia or otherwise, which he considers to have a high level of technical expertise in the prediction or assessment of risk of any kind of disaster, as an Accredited Disaster Notification Service for the purposes of this Act.

7.5. Warning Conditions.

For the determination of the warning conditions:

"Second Schedule. Disaster Alert Advance Schedules:

Column 1: Type of Disaster ... Hurricanes

Column 2 Disaster Alert Advance Schedules

<u>Storm Warnings</u>: When winds are expected to affect the island within 24 hours

<u>Hurricane Watch:</u> When there is a threat of hurricane conditions affecting the island within 24 -36 hours

<u>Hurricane Warnings</u>: When hurricane conditions are expected to affect the island within 24 hours..."

7.6. Emergency Powers

For Emergency Powers:

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

Both are described in detail in the SLU/NEMP

8.- Policies

There are no specific policies regarding hurricanes.

Other policies that are indirectly related to this plan are included in the correspondent section of the SLU/NEMP as mentioned in table 1.1 of this Plan.

- ✓ Donations and Importation of Relief Supplies Policy
- ✓ Emergency Shelter Management Policy
- ✓ Emergency Housing Policy
- ✓ Mitigation Policy

9.- Organisations Involved in the Plan

9.1. NEMO

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

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

NEMO is responsible for the co-ordination of all response activities before, during and after the impact of a tropical cyclone. This is done from NEMO headquarters and, if it is activated, from the EOC.

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

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

9.2. National Disaster Committees.

There are 10 National Disaster Committees in Saint Lucia; they are all involved in the planning and response against tropical cyclones. Their composition is as follows:

<u>Transportation Disaster Committee</u> Chairperson Deputy Chairperson-Air Transport Representative- Ground Transport Representative-Shipping Coast Guard Commander Chief Pilot, Air and Sea Port Authority Representative of the Tourism Sector (SLTB)

Supply Management Disaster Committee Chairman-representative of Service Clubs Deputy Chairman-Representative of CARITAS Antilles **Rep- Saint Lucia Rotary Clubs Rep-Saint Lucia Red Cross** Rep- Kiwanis Club Rep-Lion's Club Rep- Toast Masters Club **Rep- Optimist Club** Rep- Adventist Development and Relief Agency **Rep-** Salvation Army **Rep-**Saint Lucia Boy Scouts **Rep-** Saint Lucia Girl Guides **Rep-** Saint Lucia Cadet Corps Supplies Officer Ministry of Commerce Controller or Rep-Customs and Excise Department **Rep WASCO** Rep-Ministry of Social Transformation Culture and Local Government **Rep-Chamber of Commerce** Rep-Tourism Sector. (SLTB)

Rep-Rotarak Club Rep-Leo Clubs

<u>Telecommunications Disaster Committee</u> Chairman Amateur-Radio Deputy Chairman- To be nominated by the Permanent Secretary, Ministry of Communications, Works, Transport and Public Utilities Rep- Cable and Wireless. Rep-Amateur Radio Rep-Citizens' Band Co-ordinator, Radio Operator Emergency Response Group Rep-Tourism Sector (SLTB)

Damage and Needs Assessment Disaster Committee

Chairman Director of Meteorological Services Director of Saint Lucia Tourist Board. Rep- Ministry of Agriculture Rep- Department of Statistics Rep- Banana Companies/WIBDECO Rep-Chamber of Commerce Rep- Ministry of Communications, Works, Transport and Public Utilities. Rep- Ministry of Health, Human Services and Family Affairs. Rep- Ministry of Education, Human Resource Development, Youth and Sports Rep- Cable and Wireless Rep- WASCO Rep-LUCELEC Construction and Engineering Associations, Architects and Quantity Surveyors

Information Disaster Committee Chairman.

SLU-GIS The Media

Health & Welfare Disaster Committee Chairman-President of the Saint Lucia Red Cross Society Deputy Chairman-Chief Medical Officer or Representative of MOH Director General- Saint Lucia Red Cross All Hospital Administrators Chief Environmental Health Officer Head-Nutrition Unit, MOH Saint John's Ambulance Brigade Rep-Fire Department Coast Guard Saint Lucia Cadet Corps Director-Social Services. Ministry of Social Transformation Rep-Tourism Sector. SLTB

Note: While writing and approving this Plan, the Health and Welfare Committee went through changes in its structure and functions: Health Matters (medical attention, environmental health, etc.) will be the responsibility of the Ministry of Health. Since shelter management is no longer (as it used to be) the responsibility of the Health and Welfare Committee but of the Shelter Management Committee, the Health and Welfare Committee is being transformed into the Welfare Committee and will have the responsibility of the Stress Management Response Team (stress management of emergency responders) and mental health (stress management of the population after disasters). By the time this plan was approved (June 29th, 2002) this was underway.

Emergency Works/Rehabilitation/Reconstruction Disaster Committee Chairman-Chief Engineer, Ministry of Works Deputy Chairman-Permanent Secretary, Ministry for Planning, Development, Environment and Housing. Town Clerk, Castries City Council Rep-LUCELEC Rep- WASCO Rep-Cable and Wireless Planning Officer Ministry of Health Director of Community Services and Local Government Executive Director-Saint Lucia Hotel and Tourism Association.

Shelter Management Disaster Committee.

This Committee has been created recently. It is chaired, however, by the Chief Education Officer, Ministry of Education and comprises so far Principals of schools and shelter managers on the island.

Oil Pollution Action Committee[OPAC]

Saint Lucia Air and Sea Ports Authority (Chairperson) Ministry for Planning (Deputy Chairperson) Royal Saint Lucia Police Force Saint Lucia Marine Police Unit (OSC)-(Sea) Fire Service (OSC-Land) Fisheries Department Solid Waste Management Authority Shell Antilles & Guiana's LTD Bulk Station Texaco Bulk Station HESS Oil (Saint Lucia LTD) Ministry for External Affairs, International Trade and Civil Aviation. Caribbean Environmental Health Institute (CEHI) National Conservation Authority

Crisis Management Disaster Committee

Coordinator/Chairperson	-	SLTB
Head Crisis Management Unit	-	SLTB
Head Communications Unit	-	SLTB
NEMO Liaison	-	SLTB/SLHTA
Evaluation/Information	-	SLTB
Emergency Works/Rehabilitation	-	SLHTA/SLTB
Supply Management	-	SLHTA
Health/Welfare	-	SLTB
Telecommunications	-	SLTB
Transportation	-	SLTB
Ground Handlers	-	Saint. Lucia Reps
NEMO		

9.3. District Disaster Committees

There are 18 District Disaster Committees as follows:

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

14. Local Disaster Committee Vieux Fort South

- 15. Local Disaster Committee Micoud North
- 16. Local Disaster Committee Micoud South
- 17. Local Disaster Committee Dennery North
- 18. Local Disaster Committee Dennery South

* Not activated as of June 29th, 2002.

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

9.4. Emergency Operations Centres

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

Every EOC has to determine beforehand:

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

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

9.5. National EOC

The National Emergency Operations Centre (NEOC) is located in the Red Cross Building in Vigie, Castries. It is activated after the 'all clear' is given and if the conditions (damage and needs) determine so, and by the decision of NEMO.

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

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

The teams are the following:

Team # 1: PS in the Prime Minister's Office National Disaster Coordinator Permanent Secretary, External Affairs Chief Medical Officer Police Commissioner Chief Fire Officer The Principal Information Officer The Permanent Secretary, Ministry of Tourism Amateur Radio and Citizen Band Chairpersons of all the Disaster Committees Red Cross Representative SLASPA Representative Stenographer/typist

After 12 hours Team 2 should be in the EOC.

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

9.6 Sectoral EOCs

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

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

Those Ministries, agencies that have to co-ordinate a sectoral EOC must ensure that they will be communicated with uninterruptedly.

9.7. Private Sector Emergency Operations Centre (PEOC).

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

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

The PEOC considers the following:

a.- Location: Cable and Wireless (the exercise was there; confirmation if this would be the location in a real event is needed)

b.-Chaired by: To be defined
c.- Participants:

LUCELEC (1)
WASCO (1)
Saint Lucia Air and Seaports Authority (1)
Cable and Wireless (1)
Fuel Sector (1)
Food sector (2)
Building material sector (1)
Banking sector (1)
Tourism Heritage Sites (1)
Ministry of Tourism (1)
Ministry of Works (1)
NEMO (1) (subject to availability of personnel)

9.8 International Emergency Operations Centre (IEOC):

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

- a.- Location: Ministry of External Affairs
- b.- Chaired by: Ministry of External Affairs (PS)
- c.- Participants:

Personnel from foreign countries and regional and international organizations already in the country or that arrive in the country after a disaster. UN agencies [UNDP, PAHO, UNICEF, etc.; Other International Organisations: ECHO, OCHA, WFP, MSF, OXFAM; Regional Organisations like the CDERA and the Eastern Caribbean Donor Group (ECDG) that has members such as: CDERA, CDB, IADB, PAHO, OFDA, CIDA, DFID, etc., and other organisations: REMPEITC, Southcom, World Bank, etc.

9.9 Crisis Management Centre (Ministry of Tourism)

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

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

Location: to be defined Chaired by: to be defined/revised List of Participants: to be defined/revised.

As of the 29th June 2002, the Crisis Management Plan was still under revision by the Ministry of Tourism.

9.10 District EOCs

Every district has to establish a District EOC that:

- 1.- Co-ordinates the response at the local level.
- 2.- Has the right personnel in it to coordinate the response

3.- Has permanent communication with the NEOC.

4.- Has permanent communication with key institutions/organisations/facilities/individuals within the District.

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

10.- Responsibilities of the Organisations

10.1.- Responsibilities of NEMO's Director.

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

1.- Ensure that all the Disaster Committees meet regularly and offer NEMO's facilities for that purpose when needed and requested by the Committees.

2.- Attend the Disaster Committees meetings, take note of the agreements reached and be informed of the accomplishment of any tasks derived from the meetings.

3.- Ensure that all the main agencies responsible for an emergency/recovery function of this plan revise the plan and the procedures they are responsible for at least once a year.

- 4.- Keep a master copy of the plan and its procedures.
- 5.- Make all changes needed to the plan according to the input provided by the organisations responsible for the emergency procedures.
- 6.- Prepare the yearly version of the plan and ensure that it is presented and approved by the Prime Minister.
- 7.- Keep records of every training course that trained personnel and organisations involved in the plan and keep the information attached to the plan for future reference.
- 8.- Keep records (memoirs) of every simulation exercise that tests resources involved in the plan and keep the information attached to the plan for future reference.
- 9.- Keep records and information of the response to every real event and keep the information and evaluations attached to the plan for future reference
- 10.- Ensure that the plan and/or its procedures are revised and updated after every simulation exercise and after every real event.
- 11.- Disseminate the plan.
- 12.- Execute the procedures he/she is responsible for in the case of the threat and/or impact of a tropical cyclone in Saint Lucia.

10.2.- Responsibilities of NEMO's Deputy Director.

The Deputy Director of NEMO is responsible for:

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

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

10.3.- Responsibilities of the Response Organisations.

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

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

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

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

<u>11.- Organisation/Structure of the Response</u>

11.1. Warning and Phased Response:

The conditions that trigger the different levels of the plan are meteorological conditions that involve tropical cyclones within an alert area between 10 and 18 Latitude N and 52 and 63 W Longitude.

Different activities are taken during the following stages:

Stage 1: Watch:	36 Hours before impact (Storm or Hurricane watch)
Stage 2: Warning Alert 1:	24 Hours before impact (Storm or Hurricane warning)

PRE STRIKE MEETING HELD AT THIS STAGE.

Stage 3: Warning Alert 2:12 hours before impact.Stage 4: Warning Alert 3:6 hours before impact.Impact6 hours before impact.EOC activationEOC deactivationFinal Rehabilitation and Reconstruction.

Emergency/response activities are executed according to time (different stages) and according to damage. They are described in the emergency procedures of this plan.

11.2 Response and Co-ordination:

The structure of the response is that one is co-ordinated from the EOC, going from the National level to the sectoral levels and to the local level (District level). Contact is maintained with regional and international organisations before and after the impact of hurricanes.

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

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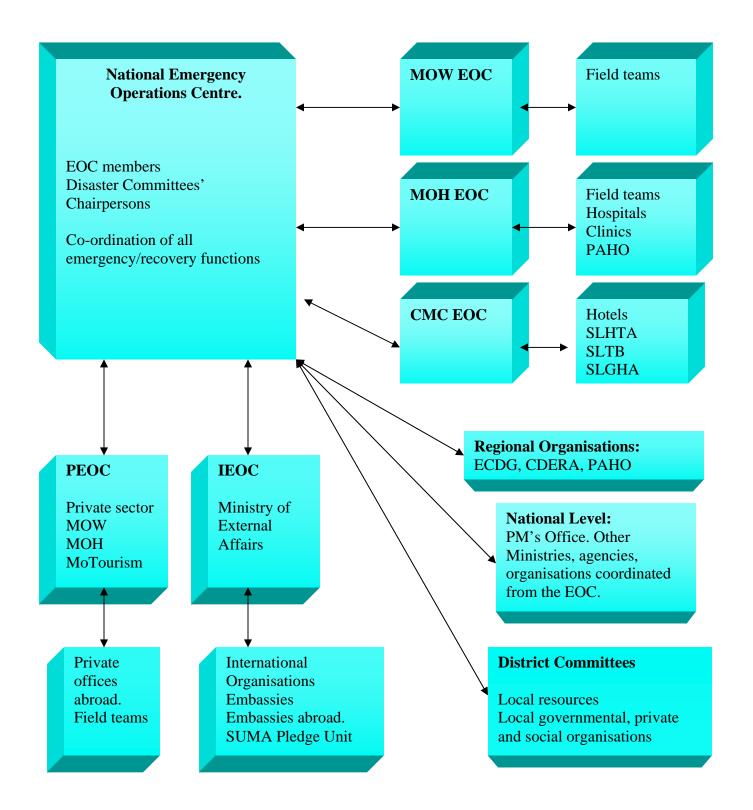


Figure 11.1 [above] Structure of the Response and Co-ordination from the EOC.

<u>12.- Relation with other Plans</u>

The Saint Lucia National Hurricane Plan is a part of the Saint Lucia National Emergency Management Plan (Section 03-01).

The Saint Lucia National Hurricane Plan is related to other plans as follows:

12.1. National Plans

The Plan is related to other national plans insofar as some of its procedures are the same and applicable to other national plans such as others like the Saint Lucia National Earthquake Plan and the Saint Lucia National Volcanic Eruption Plan.

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

12.2. Regional and International Plans

The National Hurricane Plan intends to organise and optimise the response of the organisations in the country in the case of a threat and impact of a tropical cyclone.

However, in the event, and only in the event, that because of the amount of damage caused by the tropical cyclone, the country's response capacity is totally overwhelmed, then there's the need to call for regional and international assistance.

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

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

a.- The Regional Response Mechanism activated by CDERA . Reconnaissance mission. Damage and needs assessment teams, CDRU. Appeal to donors.

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

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

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

It has to be provided, however, that:

1.- The National Hurricane plan is distributed to those regional and international organisations that are to provide assistance in the case of a disaster. They all have to be acquainted with the Saint Lucia Hurricane Plan.

2.- The plans, procedures and response mechanisms from the regional and international organisations have to be made with the knowledge of Saint Lucia. That is, the Government of Saint Lucia and NEMO has to know the emergency response/relief plans of the regional and international organisations beforehand. The regional and international organisations have to distribute their plans amongst the Saint Lucian authorities concerned (NEMO, External Affairs, MOH, etc.)

3.- The parties have to agree on the co-ordination mechanisms, plans and response/relief activities that are to be executed in the case of a disaster in and out of the country. All the plans and mechanisms for foreign assistance have to be compatible with Saint Lucia's policies on these matters.

4.- The mechanisms for request and for providing international assistance have to be very clear and at all times have to be followed by foreign organisations according to agreed emergency procedures and always being respectful of the country's sovereignty and to the country's institutions.

12.3. Local Plans/Procedures

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

12.4. Plans from other Countries.

Plans from other countries are of importance insofar as they might consider assistance from, or to, Saint Lucia in the case of a disaster caused by a tropical cyclone. Plans have to be known by all the parties involved and have to be compatible between them.

PART II DISASTER SCENARIOS

<u>13.- Hazard Description</u>

13.1. Characteristics of a Tropical Cyclone:

- Origin : Hydro-meteorological.
- Causes :
- 1. A warm sea temperature in excess of 26 degrees Celsius or 79 degrees Fahrenheit.
- 2. High relative humidity (degree to which air is saturated by vapour).
- 3. Atmospheric instability.
- 4. A location of at least 4 5 latitude degrees from the Equator.

Frequency :	A yearly season. Variable frequency for the impact on specific areas or countries.
Time of	
generation :	Days, weeks.
Speed of onset :	10-15 Kilometres per hour.
Predictability :	Predictable (the location of impact).
Magnitude :	Winds with speeds up to around 250 or 300 Km/h.
Controllability	
of the causes :	Uncontrollable.
Controllability	
of the hazard :	Uncontrollable.
Scope of impact :	Wide, hundreds of square kilometres through a path of
	hundreds of kilometres.
Duration :	Days, weeks.
Destructive	
potential :	Winds, floods, rainfall and tides destroy structures,
	human lives, environment, information, infrastructure, services,
	agriculture, etc.

13.2. Phases of Tropical Cyclones¹

There are four phases of development which are linked to the associated wind intensities:

• Tropical Disturbance

A weather system which gives rise to a specific area of cloudiness with embedded showers and thunderstorms.

• Tropical Depression

A tropical cyclone system with definite counter-clockwise wind circulation with maximum sustained winds of less than 38 mph (61 km/h). At this stage the system is given a number.

• Tropical Storm

A tropical cyclone system, with maximum sustained surface winds greater than 38 mph (61 km/h), but less than 74 mph (119 km/h). At this stage the system is given a name.

• Hurricane

A tropical cyclone with wind speed greater than 74 mph (119 km/h). The weather system is now better organised and the eye is well defined.

13.3. Classification of Hurricanes²

The Saffir-Simpson hurricane intensity scale (*Simpson and Riehl 1981*) for the Atlantic and Northeast Pacific basins gives an estimate of the potential flooding and damage to property given a hurricane's estimated intensity:

¹ From CDERA Hurricane fact sheet. CDERA Website.

² From NOAA/AOML Hurricanes, Typhoons and Tropical Cyclones FAQ by Christopher W. Landsea.

Table 13.1 Saffir-Simpson Scale								
Saffir- Simpson Category	Maximum sustained wind speed			Minimum surface pressure	Storm surge			
	Mph	m/s	kts	mb	ft	m		
1	74-95	33-42	64-82	greater than 980	3-5	1.0- 1.7		
2	96-110	43-49	83-95	979-965	6-8	1.8- 2.6		
3	111-130	50-58	96-113	964-945	9-12	2.7- 3.8		
4	131-155	59-69	114-135	944-920	13- 18	3.9- 5.6		
5	156+	70+	136+	less than 920	19+	5.7+		

13.4. Elements that Cause Damage³

Tropical cyclones are characterised by their destructive winds, storm surges and exceptional levels of rainfall which may cause flooding.

Destructive Winds

The strong winds generated by Tropical cyclones circulate clockwise in the Southern Hemisphere and counter clockwise in the Northern Hemisphere while spiraling inward and moving towards the cyclone centre. Wind speeds progressively increase towards the core. As the eye arrives, winds fall off to become almost calm but rise again just as quickly as the eye passes and are replaced by hurricane force winds from a direction nearly the reverse of those previously blowing.

Storm Surges

The rise in sea level above the normal tide. (See table for Saffir-Simpson scale). As the cyclone approaches the coast, the friction of strong on-shore winds on the sea surface, plus the "suction effect" of reduced atmospheric pressure, can pile up sea water along a coastline near a cyclone's landfall well above the predicted tide level.

³ CDERA Hurricane Fact sheet. CDERA Website.

Excessive Rainfall

The high humidity condenses into rain and giant cumulus clouds result in high precipitation rates when the cyclone reaches land. The rain rapidly saturates the ground and rapid run off will result in severe flooding.

13.5. Hurricane Category Versus Possible Damage⁴

In the following table we can see the possible effects due to the impact of hurricanes of different categories.

Table 13.2. Hurricane Categories versus Possible Damage					
Category	Level	Description			
1	MINIMAL	Damage primarily to shrubbery, trees, foliage, and unanchored homes. No real damage to other structures. Some damage to poorly constructed signs. Low-lying coastal roads inundated, minor pier damage, some small craft in exposed anchorage torn from moorings.			
2	MODERATE	Considerable damage to shrubbery and tree foliage; some trees blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs. Some damage to roofing materials of buildings; some window and door damage. No major damage to buildings. Coast roads and low-lying escape routes inland cut by rising water 2 to 4 hours before arrival of hurricane centre. Considerable damage to piers. Marinas flooded. Small craft in unprotected anchorages torn from moorings. Evacuation of some shoreline residences and low-lying areas required.			
3	EXTENSIVE	 Foliage torn from trees; large trees blown down. Practically all poorly constructed signs blown down. Some damage to roofing materials of buildings; some wind and door damage. Some structural damage to small buildings. Mobile homes destroyed. Serious flooding at coast and many smaller structures near coast destroyed; larger structures near coast damaged by battering waves and floating debris. Low-lying escape routes inland cut b rising water 3 to 5 hours before hurricane centre arrives. Flat terrain 5 feet or less above sea level flooded inland 8 miles or more. Evacuation of low- lying residences within several blocks of shoreline possibly required. 			

⁴ From NOAA/AOML Hurricanes, Typhoons and Tropical Cyclones FAQ by Christopher W. Landsea.

Category	Level	Description	
4	EXTREME	Shrubs and trees blown down; all signs down. Extensive damage to roofing materials, windows and doors. Complete failures of roofs on many small residences. Complete destruction of mobile homes. Flat terrain 10 feet of less above sea level flooded inland as far as 6 miles. Major damage to lower floors of structures near shore due to flooding and battering by waves and floating debris. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane centre arrives. Major erosion of beaches. Massive evacuation of all residences within 500 yards of shore possibly required, and of single-storey residences within 2 miles of shore.	
5	CATASTROPHIC	Shrubs and trees blown down; considerable damage to roofs of buildings; all signs down. Very severe and extensive damage to windows and doors. Complete failure of roofs on many residence and industrial buildings. Extensive shattering of glass in windows and doors. Some complete building failures. Small buildings overturned or blown away. Complete destruction of mobile homes. Major damage to lower floors of all structures less than 1 feet above sea level within 500 yards of shore. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane centre arrives. Massive evacuation of residential areas on low ground within 5 to 10 miles of shore possibly required.	

14.-Vulnerability

14.1. Vulnerability.

Literally, it is the capability or the possibility of being hurt or damaged. In our case, the capability or the possibility of being damaged by the impact of a specific hazard such as a tropical cyclone.

Vulnerability must be understood as related to a specific hazard, *i.e.*, a vulnerable element; for instance a wooden house, has a specific vulnerability against fires (flammability), another against earthquakes (due to movement, stress and strain), another to wind pressure (due to the materials and surface exposed) and another against explosions (pressure resistance to a blast impact).

This means that, when talking about vulnerability, we must also address a specific hazard as well. So, in our case we shall understand vulnerability as the possibility or susceptibility of being

damaged by a tropical cyclone and the associated hazards that come with it such as winds, rain, floods, and storm surge.

14.2. Vulnerable Systems.

The term 'system' refers to an assemblage of certain elements (or subsystems) operating within a prescribed boundary and united by some form of regular interaction or interdependence to form a coherent and integrated whole that has also certain specific purposes.

According to the definition, anything can be considered as a vulnerable system: a region, a city, a District, a Parish, a group of buildings, a bank, an industry, a house, a car, a computer and even the human body; and they are all susceptible to being damaged by internal or external hazards.

In our case, the country, Saint Lucia, is to be considered as a vulnerable system.

14.3. Vulnerable System Elements.

We shall identify five elements of the Vulnerable System (considering a country [Saint Lucia] as the Vulnerable system):

- 1.-Population
- 2.-Facilities/infrastructure
- 3.-Services
- 4.-Information
- 5.-Environment
- 6.-Economy

1.-Population :

-Human lives: men, women, children, elders, citizens, tourists, the handicapped, prisoners: all human beings disregarding their political, legal and social status and disregarding their physical and psychical conditions.

2.-Facilities/Infrastructure/Services :

- Housing. Houses, dwellings, apartments, hotels.
- Education. Schools, college. Other institutions.
- Water supply. Water storage.
- Health service. Hospitals, Clinics.
- Industry and commerce. Industries, commerce, shops.
- Food supply. Food supplies. Commerce, markets. Food production, storage and distribution.

- Communications. Roads, ports, airports, marina.
- Telecommunications. Telephones, radios. TV and Radio Stations.
- Transport. Public and private. Land, maritime and air.
- Energy (power supply, fuels, etc). Fuel storage and distribution, petrol stations.
- Sewage. Sewage systems.
- Agriculture. Crops.
- Religious. Churches. Temples. Synagogues.
- Livestock. Animals.
- Security. Police, Fire Service.
- Waste Management and disposal. Accumulation of garbage. Interruption of garbage collection.
- Cultural, Historical, Tourist. Tourist and historical sites and monuments. Beaches. Resorts.
- Financial, banking. Banks. Insurance companies.
- Entertaining, recreational. Cinema theatres, stadium, etc.
- Administrative. Every governmental and private office building.

3.-Information :

-Archives

-Libraries

-Documents, files, records etc.

4.-Environment :

-Fauna

- -Flora
- -Water
- -Air
- -Soil

5.-Economy :

-Direct cost. (cost of damage)

-Indirect cost. (cost of productivity and lack of income, insurance, fines and sues, loss of revenue, loss of taxes, etc.)

-Recovery cost. (cost of reconstruction)

An important point to be highlighted here is that sometimes emergency management agencies have the assumption that emergency facilities and responders will not be affected by the impact of hazards. This is not a 100% valid assumption; (most of the time emergency personnel, facilities and equipment are affected by the impact of hazard) hospitals, transportation, airports, etc are affected and reduce the response capacity of an organisation and of the country itself.

14.4. Tropical Cyclone Vulnerability in Saint Lucia.

Vulnerable elements in Saint Lucia are susceptible to damage due to the impact of tropical cyclones. Population is by far the most important element we have to protect. In the case of a disaster people would have to be protected, evacuated to shelters and be fed there; if injured, they have to be given medical attention, and after a disaster they might need enough and adequatequality water and safe food. Most of the response and relief activities before and during a disaster are done directly or indirectly to protect the population. Here we present the amount and distribution of the population in Saint Lucia that could be at risk depending on the characteristics of the tropical cyclone impacting some or all of them:

AREA	Population 2000*
All Castries	62,967
Castries City	2,362
Castries Sub-Urban	15,441
Castries Rural	45,164
Anse-La-Raye	6,356
Canaries	1,935
Soufriere	9,075
Choiseul	7,323
Laborie	8,861
Vieux-Fort	14,833
Micoud	17,708
Dennery	12,966
Gros-Islet	13,972
TOTAL	155,996
*SOURCE: GOVERNMENT ST	CATISTICS DEPT. (SAINT LUCIA). Nov. 2001.

Table 14.1.- Population Potentially Threatened by a Tropical Cyclone in Saint Lucia by city..

Of the previous human settlements, it is Castries City and Anse La-Raye that represent a higher risk of flooding. Dennery and Laborie a moderate risk and the rest do not present a previous history of flooding. However, vulnerability still has to be assessed in the previous locations through specific vulnerability studies involving tropical cyclones and their effect.

Regarding general damage that tropical cyclones may cause, we can mention the following:

Physical Damage

Structures will be damaged or destroyed by wind force, storm surges, landslides and flooding. Public utilities such as overhead power lines, water and gas distribution lines, bridges, culverts and drainage systems are also subject to severe damage. Fallen trees, wind driven rain and flying debris can also cause considerable damage. Houses and governmental and private buildings are likely to be affected by flooding and/or by wind force.

Crops and Water and Food Supplies. Livestock.

The combination of high winds and heavy rain and flooding can ruin crops and trees. Food stocks may be lost or contaminated and it is possible that food shortages will occur. Water supply can be interrupted and water can be contaminated. Animals could highly likely die by drowning if they are not taken care of.

Casualties and Public Health

There are relatively few deaths associated with the impact of high winds. However, storm surges may cause many deaths but usually few injuries among survivors. The threat to public health emerges in the aftermath of events when conditions such as water contamination or shortages, flooding and damage to sanitation facilities may favour the spread of diseases.

Shelter management and basic sanitation.

If endangered areas have to be evacuated and the evacuees are taken into pre-designated shelters, there's the need for personnel to run these shelters and also to provide food, water and basic sanitation services to the shelterees.

Environmental health issues.

Adequate quality and quantity of water supply has to be ensured; similarly with food safety. Vector and rodent control are important to avoid contamination and the increase of pre-existing vector borne diseases.

Lack of Communication

Communication may be severely disrupted as telephone lines, radio and television antennas and satellite dishes are blown down. Roads may be flooded and blocked by fallen trees or debris and aircraft movements are curtailed for hours after a cyclone.

Lack of Power Supply

Power supply is likely to be interrupted; petrol distribution too. Their restoration can take days or weeks.

Education and others.

Schools and other services (religious, tourism, etc) are likely to be interrupted, either just during the impact of the tropical cyclone or temporarily depending on the damage caused to structures.

Environment/Culture

Flora and fauna can be affected by the effects of hurricanes and floods. Natural habitats could be polluted. Water bodies too due to contamination by pollution or debris. Beaches can be affected by contamination or can be wiped out because of the force of winds and storm surges.

Regarding cultural inheritance, hurricanes can impact and destroy invaluable and irreplaceable historical and archaeological sites. This has to be borne in mind when planning against hurricanes in order to consider these historical and archaeological sites into the preventive, mitigation, and response activities.

In general, specific vulnerability studies have to be conducted in Saint Lucia in specific vulnerable areas and considering specific hazards and specific characteristics.

15.- Risk Assessment

15.1.- Main Tropical Cyclones that have Impacted Saint Lucia.

To assess risk is important to focus several elements of planning such as training, simulation exercises and emergency plans and procedures amongst others.

Emergency response activities must be adequate to the more likely event that can occur. Critical events or worst-case scenarios have to be considered too, but also their frequency and probability of occurrence. In other words, we should plan for more frequent events. We should plan for events that have a higher probability of occurrence.

Some of the most important hurricanes that have affected Saint Lucia are the following:

NUMBER/DATE	EVENT	NUMBER	COST	COMMENT
		KILLED		
1 October 23- 24	Hurricane			
1694 (Ref 4)				
2 June 12-14, 1780	Hurricane			
3 October 11-12 (Hurricane	2,000 -		22,000 dead in
10-18. Ref 4), 1780	("Great	preliminary		Barbados, St.
	Hurricane" Ref	estimate		Vincent, Saint Lucia
	4)	800 - revised		and Martinique. (Ref
		estimate		5) Every bridge on
				the island collapsed.
				Every church
				collapsed except
				Dauphin church
4 October 21	Hurricane	unknown		Loss to shipping and
(or/until 23 Ref 2),				damage to west coast
1817				villages
5 October 21, 1818	Hurricane			
6 and 7 September	Hurricane.			
21-22, 1819 (and/or	Heavy rains.			
October 13-15, 1819.				
Ref 4)				
8 August 11, 1831	Hurricane	10 or 12 (Ref.		Extensive damage to
		5)		shipping and to
				houses in Castries,
				Soufriere and Vieux

Table 15.1 Main tropical cyclones that have impacted Saint Lucia.

				Fort.
9 July 9, 1837	Hurricane			
10 October 6, 1841	Hurricane			
11 October 3, 1894	Gales and floods			
12 September 11-12 1898	Hurricane	13		17 inches of rain estimated in Castries. Loss of cocoa crops, landslides, overflow of rivers, houses carried away. Damage in Choiseul, Soufriere, Laborie.
13 September 25, 1908	Rainstorm	1		Killed in landslide
14 February 7, 1911	Rainstorm	11		10 killed at night in flash flood in Mabouya Valley 1 in landslide at Roseau.
15 October 26, 1923	Tropical Storm			Damage to Castries wharf.
16 November 7, 1933	Rainstorm	3		Killed in landslides
17 September 2-5. 1951	Hurricane			
18 September 22, 1955	Hurricane "Janet". Tidal waves.			Coastal damage and jetties lost. Damage in Vieux Fort, Soufriere, Choiseul, Canaries and Gros Islet.
19 October 30- November 6, 1956 (Ref 4)	"Greta"			
20 July 10, 1960	Hurricane "Abby"	6 due to landslide	EC\$4 million	Landslide at Fond St. Jacques ("destruction most severe in memory" Ref 4). All banana states destroyed.

21 Contombor 25	Hurricane	$(10 \text{ D}_{2}f^{2})$	$EC^{\phi_2/4}$ million	Entensive democe to
21 September 25, 1963		(10. Ref 3)	EC\$3/4 million	Extensive damage to banana states,
1903	"Edith". High		(or 3.5 million)	· · · · · · · · · · · · · · · · · · ·
	winds. Floods		Ref 2) (or 3.465	destroyed in Vigie,
	and landslides.		million ref 4)	damage in Choiseul,
				Dennery. Texaco
				jetty destroyed.
22 August 1, 1966	Tropical		EC\$3/4 million	
	Depression			
23 September 7 (or	Tropical Storm	1	EC\$2 million	Rivers overflowed,
5-22. Ref 2 and Ref	"Beulah".		(or 3	stores flooded,
4), 1967	Torrential rains.		Million Ref 2	merchandise ruined,
			and ref 4)	complete collapse of
				islands arteries and
				road system. Heavy
				earth moving
				equipment arrived
				from Barbados and
				Trinidad. Soufriere
				isolated.
24 August 10, 1978	Tropical Storm			isolated.
24 August 10, 1978	"Cora"			
25 August 29, 1979	Hurricane			Coastal damage to
25. Mugust 29, 1979	"David" (by-			Saint Lucia.
	passed Saint			Samt Lucia.
	Lucia)			
	Lucia)			
26 August 4, 1980	Hurricane	9	EC\$250 million	6,000 homeless.
201 1148450 1, 1900	"Allen"		(US\$100	(80, 000 affected.
			million) [or 88	Ref. 3) (9,600
			million US. Ref	displaced, 1576
			2] (235 million	houses damaged Ref.
			Ref 6)	_
27 September 1983	Wind Storm (ref			6). (3,000 affected. Ref.
(ref 3)	3)			(5,000 affected. Ker. 3)
28 September 8,	Tropical Storm			5)
1986	"Danielle"			
29 September 1987	Wind Storm			
(ref 3) 30 September, 1988	Wind Storm (not	45 (Reference 3		
· · · · · · · · · · · · · · · · · · ·	Wind Storm (ref			
(ref 3)	3)	below)		
31 October 4, 1990	Tropical Storm			
51 0010001 4, 1990	110picar Storin			

"Klaus"			
Tropical Storm "Debby"	3 (or 4. Ref 3)	EC\$230 million	(750 as affected. Ref3)
Tropical Storm "Iris"	1		
Tropical Wave		EC\$12 million	
Tropical Wave	1	EC\$621,500 (preliminary estimate)	One family (with 1 dead at Vannard, Anse la Raye. Two families at Sunbuilt, Castries. 3 families displaced.
Hurricane "Lenny"		\$ 16.9 million	(200 as affected. Ref 3)
	Tropical Storm "Debby" Tropical Storm "Iris" Tropical Wave Tropical Wave	Tropical Storm "Debby"3 (or 4. Ref 3)Tropical Storm "Iris"1Tropical Wave1Tropical Wave1Hurricane1	Tropical Storm "Debby"3 (or 4. Ref 3)EC\$230 millionTropical Storm "Iris"1Tropical WaveEC\$12 millionTropical Wave1EC\$621,500 (preliminary estimate)Hurricane\$ 16.9 million

References for Table 15.1:

1.- Disaster Matrix. NEMO. 1998. Based on information from:

DEVAUX, Robert OBE. - Historian

Disaster Information Press Kit for the Media - Caribbean Disaster Emergency Response Agency/UNESCO/PAHO - 1995

June 9, 1955 - Night of Flames in Soufriere Fire Supplement in Mirror Newspaper June 9, 1995.

Disaster Mitigation Guidelines for Hospitals - PAHO, January 1992

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2.- List of Disasters. ODP. 1997. Saint Lucia website: "List of disasters that have affected Saint Lucia". Based on information from: Saint Lucia National Archives.

Article by Robert Devaux. Saint Lucia National Trust.

- 3.- EM-DAT: The OFDA/CRED International Disaster Database.
- 4.- Pan American Health Organisation. Vulnerability Assessment of the Victoria Hospital, Castries, Saint Lucia. Tony Gibbs. Consulting Partnership Ltd. Christ Church, Barbados.
- 5.- Saint Lucia Historical, Statistical and Descriptive. Henry H. Breen. 1894.
- 6.- Hurricane Allen. The Rotary Club. 1981.
- 7.- Outlines of Saint Lucia's History. Rev. Charles Jesse.
- 8.- Saint Lucia Up to Now. Anne L.D. French. 1989.

15.2.- Probability of the Occurrence of a Tropical Cyclone.

From the previous reference 4, we present next a probability chart and table (CCRHP-UWI cited as the sources of information. no date provided for the table.) of cyclone risk in a 2-degree square (approximately 220 Km. X 220 Km.) centred in Barbados. The statistics for Saint Lucia is likely to be very similar to that of Barbados. It is estimated that the probability of a direct hit on Saint Lucia is about 65% of the probability of a passage through the 2-degree square as shown.

Number			Table 15.2.			
Of		Probability	of Cyclone	(%)		
Years	TS	HC1	HC2	HC3	HC4	HC5
1	12	3	8	8	4	3
2	23	6	16	16	7	6
5	48	13	36	36	17	13
10	73	25	58	58	32	25
20	93	43	83	83	53	43
50	100	76	99	99	85	71

As we can see: Saint Lucia has been hit by several tropical cyclones of diverse magnitude: from tropical waves and depressions to category-5 hurricanes. They all, disregarding their magnitude, have caused damage, some more severe than others. They will hit again. Risk assessment might tell us when.

Risk assessment studies have to be conducted in Saint Lucia to assess more accurately the probability of the occurrence of tropical cyclones of different magnitude.

16.- Disaster Scenarios

16.1.- Disaster Scenarios and Tropical Cyclones

With the information from Sections 13, 14 and 15 we could have different scenarios by combining different magnitude and characteristics of the hazard and different vulnerable areas. It can be seen that tropical cyclones, disregarding their magnitude, can cause severe damage through heavy rains, floods, overflowing of rivers, high winds and tidal waves; therefore, considerable damage can be caused by any magnitude or category of the tropical cyclone, depending on the secondary effects it brings (rains, floods, winds, etc.), the time its effects last (winds, rainfall, floods, velocity of translation of the cyclone) and the vulnerable areas affected. So, considerable damage is expected even from tropical depressions and from tropical storms.

16.2.- Three Types of Disaster Scenarios

Let us present three disaster scenario examples based on past events in Saint Lucia:

<u>A.- Wind-type scenario: Hurricane 'Allen'</u>: August 1980. Category 5 hurricane, winds 165 mph. 9600 people displaced, structural damage: 1576 houses damaged (572 totally destroyed), damage to infrastructure, public utilities and services, damage to agriculture estimated in EC 186 million dollars. Total damage estimate: EC 235 million dollars.

<u>B.- Rapid onset-flash flood scenario.</u> Tropical storm 'Debbie': September 1994. Winds about 40 mph, storm moving at 17 mph. heavy rains: 10" in 10 hours rainfall intensity. 4 people dead. Damage to telephone exchanges due to flooding, power outages, 10 bridges damaged, several landslides, roads impassable, 55 % of banana crops damaged, 80% of coconut crops damaged, thousands of animals dead by drowning, vegetable gardens destroyed (EC 25 million loss), 33 out of 34 water supplies out of order. Worst effects in Dennery, Anse-La-Raye and Soufriere. 250 million EC dollars loss.

<u>C.-</u> Slow onset-rain and tidal wave-coastal-damage scenario. Hurricane 'Lenny': November 1999. twelfth named storm in 1999. Had the unusual direction West-East. It had a fast development from Tropical Depression to Category four hurricane. Affected Saint Lucia for three days. Because of its direction, affected Saint Lucia West coast. Waves over 10 ft. Main areas affected were Soufriere, Gros Islet, Choiseul, Canaries and Anse La Raye. Persons moved to shelters in Soufriere. Damage to fisheries in Choiseul and Laborie. Amount of damage was estimated in EC 17, 437,000 dollars.

Specific and more detailed disaster scenarios have to be designed in the future for Saint Lucia in order to know beforehand what is to be expected, when and where. This will help in focusing mitigation, emergency planning and response even more to reality.

Besides, what has happened in the past is likely to occur in the future.

PART III EMERGENCY RESPONSE AND RELIEF

17.- Emergency Response and Recovery Activities.

17.1. Relation Between Hazard's Effects and Response/Recovery Activities.

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

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

17.2. Response/Recovery Activities.

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

I able	17.1 General	LIST OF FU	inctions a	na Sub-Iun	ctions i	or Emerge	ency Plant	ung.	
Hazard/ Function	Hurrican es /Floods	Earth- quakes	Land- slides (rapid onset)	Volca- nic eruption	Fire	Oil spills	Haz mat acciden ts	Acci- dents	Hazard i +1 Hazard n
1.Warning/ Monitoring	Х			Х					
2.Notification	Х	Х	Х	Х	X	Х	Х	Х	
3.EOC	Х	Х		Х		Х			
4.ICS			Х		Х	Х	Х	Х	
5.Comm- unications	Х	Х	Х	Х	Х	Х	Х	Х	

Table 17.1 General List of Functions and Sub-functions for Emergency Planning.

Hazard/	Hurrican	Earth-	Land-	Volca-	Fire	Oil	Haz	Acci-	Hazard
Function	es /Floods	quakes	slides (rapid onset)	nic eruption		spills	mat acciden ts	dents	i +1 Hazard n
6 Transportation	Х	Х	Х	X					
7.Control of the hazard					X	Х	Х	Х	
8.Evacuation	Х	Х	Х	X	Х	Х	Х	Х	
9.Shelter management	Х	Х	Х	X		Х		Х	
10.Search and Rescue	Х	Х	Х	X	X			Х	
11.Security	Х	Х	Х	X	Х	X	X	Х	
12.Medical attention	Х	Х	Х	X	Х	Х	Х	Х	
13.Environmental Health	Х	Х	Х	X		Х	Х		
14.Damage & assessment	Х	Х	Х	X	Х	Х	X	Х	
15.Foreign Assistance	Х	Х	Х	X		X	Х	Х	
16.Supply management.	Х	Х	Х	X					
17.Public Information	Х	Х	Х	X	X	Х	Х	Х	
18.Protection and Rehabilitation of Infrastructure	Х	X	Х	Х	X	Х	X	Х	
19.Environmental restoration	Х	X	X	X	X	X	Х		
20.Reconstruction	Х	Х	Х	X	X	X	Х		

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

- 1. Warning & Monitoring
- 2. Notification
- 3. EOC

- 4. Incident command system
- 5. Communications
- 6. Transportation
- 7. Control of the hazard
- 8. Evacuation
- 9. Shelter management
- 10. Search and rescue
- 11. Security
- 12. Medical attention/counselling
- 13. Environmental health
- 14. Damage and needs assessment
- 15. External assistance
- 16. Supply management
- 17. Public information
- 18. Protection and rehabilitation of Infrastructure
- 19. Environmental Protection and Rehabilitation
- 20. Reconstruction

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

- 1. Warning & Monitoring (detecting the threat of a hazards).
 - a. Hurricanes, floods and rainstorms
 - b. Volcanic eruptions
 - c. Landslides (slow onset.)
- 2. Notification (that a hazard has impacted)
 - a. Hurricanes
 - b. Earthquakes
 - c. Landslides (slow onset)
 - d. Accidents (boats, aircraft crashes, vehicles)
 - e. Hazmat accidents (oil spills, fires, others)
 - f. Any other hazard.
- 3. EOC
 - a. NEOC
 - b. Local EOCs
 - c. Sectoral EOCs
- 4. Incident Command System
 - a. Per type of event.
- 5. Communications
 - a. Localised event
 - b. Nation wide event

- c. Region wide event
- 6. Transportation
 - a. Land
 - b. Water (sea, fluvial, other)
 - c. Air
- 7. Control of the hazard (not applicable for natural hazards)
 - a. For controllable chemical hazards (fires, spills, gas leaks, etc.)
 - b. For man-made hazards (bomb threats, terrorist attacks, bank robberies, etc).
- 8. Evacuation.
 - a. Evacuation in the case of predictable hazards (pre-impact)
 - b. Re-location in the case of unpredictable hazards (post-impact)
- 9. Shelter Management
 - a. Shelter Management for evacuees (predictable hazards)
 - b. Shelter Management and Emergency Housing for relocated people (nonpredictable hazards or impact with long effects on housing)
- 10. Search and Rescue (governmental, private and volunteer resources)
 - a. After a hurricane or boat accidents (maritime)
 - b. After an earthquake (under rubble)
 - c. Other cases (fire, landslides [mountain], etc.)
- 11. Medical attention (including governmental, private, social and volunteer organisations)
 - a. Trauma caused by accidents or collapse of buildings
 - b. Trauma caused by volcanic eruption, fires or hazardous substances
 - c. Mental health/Counselling
- 12. Security (securing places or areas, control of looting, riots, terrorism, etc.)
 - a. Nation wide event
 - b. Localised event
- 13. Environmental health
 - a. Surveillance
 - b. Adequate quality and quantity of water supply
 - c. Food safety
 - d. Adequate waste disposal
 - e. Vector and rodent control
 - f. Adequate disposal of dead bodies (people and animals)
- 14. Damage and needs assessment
 - a. Damage and Needs assessment (District and National levels)
- 15. Public Information
 - a. Before the impact in cases of predictable hazards.
 - b. After the impact of hazards.
- 16. External Assistance
 - a. Request of External Assistance (other countries and international and regional organisations)

- b. Receipt and storage of External Assistance
- 17. Supply management (by government, private and volunteer groups)
 - a. Adequate storage and distribution of supplies
 - b. Water supply
 - c. Food supply
 - d. Equipment
 - e. Others

18. Protection and Rehabilitation of Infrastructure

- a. Electricity
- b. Telecommunications (radios, telephone, radio, TV)
- c. Water supply
- d. Food supply
- e. Medical attention
- f. Communications
 - i. Terrestrial communications (road clean-up and rehabilitation)
 - ii. Aerial communications (airport runways clean-up and rehabilitation)
 - iii. Maritime communications (ports)
- g. Garbage collection, transport and final disposal
- h. Schools, college, universities, all teaching institutions.
- i. All governmental organisations and buildings
- j. Private sector (tourism, banking, industrial, commerce, etc.). Business continuity.
- 19. Environmental Protection and Rehabilitation
 - a. Water (rivers, lakes, sea, underground water) and soil restoration (soil, sub-soil)
 - b. Flora and fauna (protection and reintroduction of affected and/or endangered species and their natural habitats).
 - c. Cultural Heritage. Archaeological sites.
- 20. Reconstruction (Long-term reconstruction of society according to damage)
 - a. Infrastructure
 - b. Services
 - c. Housing
 - d. Other economic sectors (agriculture, industry, etc.)
 - e. Finance and budget administration (loans, grants, donations, etc.)
 - f. Reconstruction programme.

For the purposes of this plan (Hurricane Plan) we will consider those functions presented in column 1 from table 17.1. This is:

- 1. Warning & Monitoring
- 2. Notification
- 3. EOC
- 4. Communications

- 5. Transportation
- 6. Evacuation
- 7. Shelter management
- 8. Search and rescue
 - o Land
 - o Maritime
- 9. Security
- 10. Medical attention
- 11. Environmental health
- 12. Damage and needs assessment
- 13. External assistance
- 14. Supply management
- 15. Public information
- 16. Protection and rehabilitation of services
- 17. Environmental protection and rehabilitation
- 18. Reconstruction

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

19. District Disaster Committee General Response (Hurricane)

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

Thus, considering two procedures for search and rescue (land and sea) plus the District Committee Procedure we will have 20 procedures for this plan.

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

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

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

Hazard/	Main Responsible	Key Support	
Function	Organisation	Organisations	
		(secondary)	
1.Warning/	Meteorological Office	Ministry of Agriculture	
Monitoring	Ministry of Works		
C	-		
2.Notification	NEMO	National Committees,	
		District Committees.	
		Government Ministries.	
3.EOC	NEMO	Disaster Committees,	Sectoral EOCs, MOW,
		District Committees,	MOH, CMU, Private
		Ministries, Private Sector	sector plan
4.Comm-	Telecommunications	Private sector. Amateur	MOW. Private Sector
unications	Committee	radio operators.	Plan
5 Transportation	Transportation Committee	MOW, volunteers. Private	MOW
		sector.	
6.Evacuation	Royal Saint Lucia Police	District Committees,	
	Force	Transportation Committee	
7.Shelter	Shelter Management	MOE, District	
management	Committee.	Committees, Social	
		Organisations. MOH.	
		Supply management	
8.Search and Rescue	Fire Service. Police.	Committee.	
8.Search and Rescue	(land)	Transportation Committee, MOW.	
	Police (maritime)		
9.Security	Police		
J.Security	1 onec		
10.Medical attention	Health and Welfare	MOH. Private sector.	MOH Plan.
	Committee	Transportation committee.	
		Fire service, police.	
11.Environmental	Health and Welfare	MOH. Shelter	МОН
Health	Committee	Management Committee.	
12.Damage & Needs	Damage Assessment	Ministry of Works	MOH, MOW, Private
Assessment	Committee		Sector Plan
13.External	Ministry of External	NEMO	
Assistance	Affairs		
14.Supply	Supply Management	Governmental Ministries.	Private Sector Plan
Management.	Committee	Private sector.	
		Transportation Committee	

Table 18.1. Responsibilities Matrix for Emergency/Recovery Functions in the Case of a Tropical Cyclone

Hazard/	Main Responsible	Key Support	Sectoral Plans
Function	Organisation	Organisations	
		(secondary)	
15.Public	Information Committee	NEMO, The Media, All	
Information	(GIS)	Committees.	
16.Protection and	Works/Rehabilitation	MOW, Private sector	MOW, Private Sector
Rehabilitation of	Committee		Plan
Infrastructure			
17. Environmental	Saint Lucia Solid Waste	MOW. Transportation	
Protection and	Management Authority	Committee.	
Rehabilitation			
18.Reconstruction	Ministry of Planning	NEMO, MOW. All	
		Ministries, Private Sector.	

19.- Initial Aerial Damage Assessment.

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

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

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

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

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

Group 1: Prime Minister NEMO Director Damage Assessment Committee Chairperson Works and Rehabilitation Disaster Committee Chairperson SLU-GIS representative (cameraman) Group 2: Police Commissioner Chief Medical Officer Chairperson Shelter Management Disaster Committee Representative Ministry of Agriculture SLU-GIS representative (cameraman)

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

20.- Emergency Procedures

The Plan includes the following twenty emergency procedures:

HP-001.- Warning HP-050.- Notification HP-100- Emergency Operation Centre (National) HP-150.- Communications HP-200.- Transportation HP-250.- Evacuation HP-350.- Shelter Management HP-400.- Land Search and Rescue HP-401.- Maritime Search and Rescue HP-450.- Security HP-500.- Medical Attention HP-550.- Environmental Health HP-600.- Damage and Needs Assessment HP-650.- External Assistance HP-700.- Supply Management HP-750.- Public Information HP-800.- Protection and Rehabilitation of Infrastructure. HP-850.- Environmental Protection and Rehabilitation HP-900.- Reconstruction HP-950.- District Disaster Committee General Procedure (Hurricane)

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

PART IV THE PLANNING PROCESS

21.-Revision and Updating of the Hurricane Plan

21.1 The Planning Process.

Planning is a process not a product.

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

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

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

So emergency planning:

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

e. the real and adequate response and recovery activities that have to be done in the case of the hazard threat or impact according to the possible damage that can occur.

So, the planning process must be done considering:

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

events should result in an immediate revision of the plan and the information included in it.

21.2. Organisations Responsible for Revising the Plan

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

21.3. Revision of the Plan and its Procedures.

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

A.- General information that justifies the plan:

- Characteristics of the hazard the plan is for (origin, cause, predictability, magnitude, controllability, scope of impact, duration, destructive potential, etc.).
- Characteristics of the vulnerable elements (number, type and location of people at risk, facilities, equipment, information, crops, livestock, infrastructure and services).
- Disaster scenario: What is likely to happen if the hazard strikes a specific vulnerable area (Number, type and location of: casualties, evacuees, homeless, houses, infrastructure and services affected, information lost, environmental impact, etc)
- Functions needed (according to the type of hazard and vulnerable elements): warning, coordination, communications, evacuation, shelter activation, search and rescue, medical attention, security, rehabilitation of services, etc.)
- Identification of organisations and assignment of responsibilities: MOH for medical attention, environmental health; Police for security, evacuation; Met office for monitoring and warning, etc.
- Writing down the activities to be implemented: writing the plan and procedures: warning, evacuation, search and rescue, etc.) See point B below.
- B.- The written plan and its contents:
 - General information about hazards and response needed (point A above).
 - General information about aim, purpose, objectives, legal framework and organisations involved in the plan.
 - Conditions (quantitative) that trigger the plan (if applicable [predictable hazards])
 - > Conditions that activate the response (non-predictable hazards).

- Written description of activities (procedures: main responsibilities, activities through time per responsible per function).
- List of resources to be used in an emergency (see point D below).
- > Other information (Maps, charts, etc.)
- ➢ Training programme.
- Simulation exercise programme.
- Procedure for revision and updating the plan.

C.- The planning process:

- > Date of revision and number of version.
- > Organisations involved in the response/recovery.
- > Organisation(s) responsible for revising and updating the plan.
- > Organisation(s) that revised and updated the plan.
- Involvement in the writing of the plan and procedures of all the organisations involved in the response/recovery.
- Evaluation of the training programme.
- Results and evaluation of simulation exercises
- > Evaluation of real events.

D.- Resources.

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

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

21.4. Responsibilities of the Planning Organisations.

In general all the organisations involved in this plan should:

1.- Revise the plan and its procedures according to the previous points (21.1-21.3)

2.- Meet at least yearly (Committees and Organisations responsible for all the functions)

3.- Revise and update the plan and its procedures at least once a year and every time after a simulation exercise and after real events.

4.- Update directories, inventories and other information every year before the hurricane season.

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

22.- Dissemination of the Plan

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

The plan has to be distributed to:

1.- all the organisations involved in the planning process and in the response.

- Governmental Private
- Social
- 2.- the Media
- 3.- regional and international disaster management organisations
- 4.- donors
- 5.- CDERA Participating States
- 6.- academic Institutions.

Besides the technical version of the plan other versions can be prepared:

1.- Version for the Media and for Public Information

2.- Internet Version

The dissemination of the plan must be done by NEMO. All copies of the plan should be numbered if considered necessary. Record of all the copies and their possessors must be kept by NEMO.

23.- Training

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

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

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

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

2.- National Hurricane Training Programme

3.- Per training course delivered

Objectives Date and venue List of participants Trainer(s) and qualifications Contents of the training course (agenda) Manuals Description of Outcome achieved with the training course Evaluation of the participants Evaluation of the course by the participants Follow-up information Checking personnel, plans, training needs, etc.

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

24.- Simulation Exercises

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

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

Simulation exercises consist of:

- an emergency plan and procedures for a specific hazard that is to be tested.
- personnel of the institutions involved in response whose performance is going to be tested.
- equipment and materials whose availability and working conditions are to be tested.
- a particular disaster scenario. That is, what is supposedly happening.
- logistics. All equipment and personnel needed for the adequate execution of the exercise must be in the right place at the right time in the right order for the right purposes.
- a theatre of operations. The place where the exercise is going to be executed (the place that is supposedly affected by the hypothetical hazard).
- personnel to conduct and evaluate the exercise: Observers, controllers and evaluators.
- a Directive. A simulation exercise directive is a document with the following information: The objectives of the exercise:
 - Place and time of the exercise
 - o The hypothetical disaster scenario

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

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

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

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

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

25.- Record of Real Events

The true test of an emergency plan is a real event. Personnel, other resources and planning are tested under real emergency and disaster circumstances; then, we can know if what we plan was right, if our resources were enough and the right resources, if our personnel was adequately

trained, etc. Therefore, all real events have to be evaluated to see what happened and what went right and what wrong. This is done with the purpose of improving the plan and its resources, so in the next real events the response would be better and better. If we do not improve our planning after every real event, our planning is useless any lessons learned are just a list of errors that will certainly occur repeatedly in every real event.

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

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

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

It is very important to highlight the fact that a real event does not only mean a catastrophic disaster. An event can only be the issue of a hurricane watch or a hurricane warning without any impact. The warning may have implied a 'pre-strike meeting' and for sure implied communication and notification activities; sometimes even allocation of contingency funds or any other activity consequence of the immediate threat of a tropical cyclone. All these activities have to be evaluated and improved. All these warnings must be seen as invaluable opportunities to test the plan and its procedures. A warning is a real event too.

PART V EMERGENCY PROCEDURES

<u>26.- Emergency Procedures</u>

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

Emergency Procedure

Page Number

1. HP-001 Warning	68
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Saint Lucia National Emergency Management Plan Saint Lucia National Hurricane Plan

Emergency Procedure HP-001 Warning

Version:

Version 1. June 29th, 2002.

Objectives

To provide the information to NEMO and the Public about meteorological conditions and phenomena that are likely to impact Saint Lucia and cause a state of emergency or disaster, before, during and after the impact.

Responsible for the Procedure:

Main:

Director of Meteorological Services. Ministry of Communications, Works and Public Utilities.

Secondary:

a.- The Meteorological Forecast Office at Hewanorra International Airport

b.- The Meteorological Office at G F L Charles Airport.

c.- Ministry of Agriculture.

Steps of the Procedure.

A.- The Director Meteorological Service shall:

Permanent:

1.- Participate in National Committee of the National Emergency Management Organisation (NEMO) and in the Damage and Needs Assessment and in the Information Disaster Committees.

2.- Review and update the present emergency procedure and its appendices at least once a year (before the hurricane season) and always after a simulation exercise in which it is tested, and after a real event.

3.- Participation in the annual telecommunications test conducted by the telecommunications committee.

Immediately Before the Impact:

4.- Maintain regular contact with Met Service and the Director NEMO.

5.- Advise the Director of NEMO and the Police on the issue of a 'Gale' warning or at any time before that to initiate the National Plan. The Met office will continue to issue information and warnings in accordance with the National Plan and this procedure.

6.- Advise the Chairperson, Director of NEMO and the Police in the event of full hurricane warnings issued and in the planning of evacuation to take place.

7.- Advise the Director of NEMO and the Prime Minister, prior to any decision being taken regarding evacuation and/or the closure of business sector and schools in times of emergency.

After the Impact:

8.-Advise the Director of NEMO on the meteorological situation after the tropical cyclone outer edge has left the alert area in order to give the 'all clear' message.

B.- The Meteorological Forecast Office at the Hewanorra International Airport shall:

Permanent:

1.- Have the sole responsibility for the preparation and issue of Bulletins, Advisories and Warnings on Tropical Depressions, Storms, Hurricanes or any other adverse weather likely to affect Saint Lucia.

2.- Exchange technical information with other Meteorological centres to ensure that all regional warnings are consistent.

3.- Participate, in co-ordination with NEMO, in public education, planning and review programmes on weather disasters prior to every hurricane season.

4.- Test all internal equipment on a daily basis, including the HF Radio.

5.- Participate in the annual telecommunications test conducted by the telecommunications Committee.

Immediately before the Impact:

6.- Initiate shifts described in Appendix IV once a depression, storm or hurricane is a potential threat to Saint Lucia.

7.- Start Routine and non-routine functions as indicated in Appendix IV.

8.- Inform the Director, Met Service, in the event of a Hurricane, storm depression or any other adverse weather in the region. The meteorological office will issue details to the radio stations and to NEMO in its regular weather broadcasts as general information while the system is still far from the island (outside the alert area.)

9.- Contact the following persons/organisations, if the hurricane (or any other system) is likely to pass close to or directly affect the island, and contact them prior to the issuing of information via radio and EOC (Outer edge of the system reaches the alert area 1):

- The Director Met Service
- The Director NEMO
- The Government Principal Information Officer
- Police
- Airport managers
 - Vieux Fort
 - GFL Charles
- Light house at GFL Charles and Hewanorra

The order of preference in using the internal system to Emergency Headquarters (E/H), SLU-GIS/NTN, Radio Saint Lucia (RSL), Radio Caribbean International (RCI), Helen Television System (HTS), Police, GFL Charles Met Office is:

Emergency Headquarters (i) fax (ii) Telephone (iii) email. SLU-GIS (i) Fax (ii) Telephone. Radio Saint Lucia (i) Fax (ii) Telephone. RCI & HTS (i) Fax (ii) telephone (iii) email Police (i) telephone Marine Police (i) Fax (ii) telephone GFL Charles Met. Office (i) hot line link (ii) telephone (iii) Fax (iv) email.

Telephone will be used as the first option when voice casts begin.

See Appendix G. Telephone and Telefax Numbers.

The purpose of an internal fax system is to furnish SLU-GIS/NTN, RSL, RCI, HTS and Emergency Headquarters etc., with printed copies of all Bulletins issued by the office. It is unreliable and unrealistic to distribute such messages via telephone. A printed copy is the safeguard against rumours, misquotations and false claims by individuals or agencies.

Email may be used to pass bulletins to GFL Charles as well as any other information not obtainable on the other communication facilities.

10.- Establish regular contact with the Director, Met Service and the Director of NEMO to apprise them of the situation.

11.- Contact and maintain discussions with other centres in Miami (NHC), San Juan (PR), Antigua, Barbados, Trinidad & Tobago, and Martinique radar.

12.- Continue to issue information on the issue of the 'Gale warning' or at any time before that, in accordance to the National Plan and its procedures.

13.- Advise the Police on the need for the display of warning from the lighthouse and Police Stations as laid out in Appendix V B (1)

14.- Issue the Warning as established according to the Alert Area defined in Appendix V A. (Warning Procedures and Related Matters):

- Alert Area 1 (based on hurricane watch; i.e., 36 hours before impact)
 - Initial Alert: 52 W to 55 W, 10 N to 16 N
 - Second Alert Area: 52 W to 63 W, 16 N to 18 N
- Alert Area 2 (Based on hurricane warnings, i.e., the system is 24 hours away.
- Red Alert-Serious threat: 55 W to 63 W, 10 N to 16 N

15.- Issue public releases (statements and/or advisories) according to Appendix VA Warning Procedures and Related Matters.

16.- Issue bulletins in the times mentioned in Appendix V B. Warning Procedures and Related Matters:

Outside alert area: Main Advisories every 6 hours, at midnight, 0600, 1200, 1800 (LST)

Within Alert Area: Main Advisory and Marine Advisory as above. Intermediate Advisory every six hours at 0300, 0900, 1500, 2100 (LST)

17.- Issue a special advisory if any sudden change takes place in the weather system just after the issue of an advisory. Amendments are not to be issued. Any error in bulletins must be corrected by a complete transmission of the corrected version.

To ensure consistency in Bulletins reaching the local, regional and international press, do not deviate from the basic information published by the US, National Hurricane Centre (NHC) Miami, Florida or San Juan while the system is outside Saint Lucia alert area (even if forecasters here are not in total agreement with such information). Positions of the system, however, must be given relative to Saint Lucia and/or a neighbouring island. Within Saint Lucia alert area, wording of the bulletin can vary significantly since those are now specifically geared for the Saint Lucian public and since sudden changes observed locally are not likely to be mentioned in other bulletins until a few hours later.

18.- Issue bulletins according to the format, information and text specified in Appendix V A. Warning Procedures and Related Matters.

19.- Inform the Director, Met Service of every significant change of events including changes in intensity.

20.- Always use types of warnings and warning signals as described in Appendix V B. Warning System.

After the Impact:

21.- Transmit all information to the public through the EOC once it has been activated. Bulletins will no longer be transmitted directly to RSL, RCI and HTS, etc., but via a communications network established for that purpose. For voice cast, means of contact will be (i) telephone (ii) HF Radio (iii) Ham Radio will be used as back up. Fax messages to EOC will continue.

22.- Lift warnings for the island once it is certain that there is no longer a threat. Immediate steps are to be taken to restore damaged internal and external communications and instruments. A proper record of all information released and all data collected will be kept and a full report prepared soon after emergency is over. (Initiated only after the outer edge of the system has passed the alert area: 'All clear')

23.- Continue the broadcasts to EOC, if communications are not affected, until they are no longer necessary.

C.- The Meteorological Office at GFL Charles Airport shall:

Permanent:

1.- Test the hotline link daily as well as the HF Radio.

2.- Participate in the annual telecommunications test conducted by the telecommunications committee.

Immediately before the Impact:

3.- Initiate shifts, as described in Appendix IV, when directed to do so by the Meteorologist, Hewanorra, Met Office or the Director.

4.- Start Routine and non-routine functions as indicated in Appendix IV

5.- Implement emergency procedures to provide a twenty four (24) hour service upon notification of a hurricane (or other system) by the Met Office at Hewanorra.

6.- Serve as a back up information service to the main office. In this case, Internet access will be necessary. Bulletins, Advisories and Warnings from Hewanorra will be relayed to the Director, NEMO, SLU-GIS, Radio Saint Lucia, Radio Caribbean International, Helen Television System, Radio 100 Helen FM and DBS, if communications problems are experienced at Hewanorra.

Fax or emails will be used to receive Bulletins from Hewanorra, with the hotline and telephone as alternatives.

7.- Relay any relevant on incoming data via hotline to Vieux Fort, if the main office at Hewanorra experiences communications problems. If Hewanorra cannot pass bulletins, etc., to the EOC, GFL Charles undertakes this task. Voice casts (authorised by Hewanorra) would be made by telephone to NEMO and the EOC.

After the Impact:

8.- Take steps to restore all affected communications and instruments immediately after the emergency

D.- The Ministry of Agriculture shall:

After the Impact:

1.- Provide all possible meteorological information in the event that the Meteorological service is not able to provide information after the impact of the tropical cyclone.

5.- Attachments (not shown here):

- I.- The role of the Meteorological Service within the National Plan.
- II.-The communications facilities of the Meteorological Office
- III.- Communications practices and procedures
- IV.- Operational requirements, practices and procedures
- V A.- Warning procedures and related matters
- V B.- Warning systems
- VI.- Telephone and Fax numbers

END OF PROCEDURE

<u>Saint Lucia National Emergency Management Plan</u> <u>Saint Lucia National Hurricane Plan</u>

Emergency Procedure HP-050 Notification

Version:

Version 1. June 29th, 2002.

Objectives

To notify to all the members of the NEMO involved in the National Hurricane Plan about the presence and conditions of tropical cyclones and meteorological conditions that demand the activation of the plan and its procedures.

Responsible for the Procedure:

Main:

The Director of the National Emergency Management Office.

Secondary:

- The Deputy Director, NEMO.
- The Cabinet Secretary.
- NEMO's secretary.
- The Chairpersons of the National Disaster Committees:

Steps of the Procedure.

A.- The Director of NEMO shall:

Permanent:

1.- Ensure that the directories of the persons involved in the plan and in this procedure that have to be notified are updated regularly and that a copy is kept at NEMO.

2.- Ensure that the members of the EOC update the directories of the personnel and organisations they have to notify at least before the hurricane season.

3.- To keep one copy of this procedure and its directories at the office and one at home.

4.- Coordinate with the Director of the Meteorological Service about the mechanisms for the issue of warnings, and bulletins in the case of :

•	Stage 1: Watch:	36 Hours before impact (Storm or Hurricane watch)
•	Stage 2: Warning Alert 1:	24 Hours before impact (Storm or Hurricane warning)
		 Pre-Strike meeting called by NEMO at this stage.
•	Stage 3: Warning Alert 2:	12 hours before impact.
•	Stage 4: Warning Alert 3:	6 hours before impact.
•	All Clear	Outer edge of the cyclone out of the alert area.

The stages are declared when the outer wall of a tropical cyclone reaches the following alert areas considering their speed and consequently estimating the time for impact:

• Alert Area 1:

Initial Alert: Second Alert Area:	52 W to 55 W, 10 N to 16 N 52 W to 63 W, 16 N to 18 N
Alert Area 2:	
Red Alert-Serious threat:	55 W to 63 W, 10 N to 16 N

5.- Revise and update this procedure at least once a year before the hurricane season and always after a simulation exercise and after a real event.

Immediately before the Impact:

.

6.- Receive the warning notification from the Meteorological Forecast Office at the Hewanorra International Airport of:

Stage 1: Watch: 36 Hours before impact (Storm or Hurricane watch)
Stage 2: Warning Alert 1: 24 Hours before impact (Storm or Hurricane warning)
Pre-Strike meeting called by NEMO at this stage.
Stage 3: Warning Alert 2: 12 hours before impact.
Stage 4: Warning Alert 3: 6 hours before impact.
All Clear Outer edge of the cyclone out of the alert area.

7.- Once having received the respective warning from the Meteorological Forecast Office at the Hewanorra International Airport, notify all the persons included in Directory A (attached to this procedure.)

- Stage 1: Watch:
- Stage 2: Warning Alert 1:
- 36 Hours before impact (Storm or Hurricane watch)
- 24 Hours before impact (Storm or Hurricane warning)
- Pre-Strike meeting called by NEMO at this stage. 12 hours before impact.
- Stage 3: Warning Alert 2:
- Stage 4: Warning Alert 3: 6 hours before impact.
- All Clear

Outer edge of the cyclone out of the alert area.

8.- Request with the notification, 36 hours before impact (Watch), the following:

- a. To NEMO staff and to the Chairpersons of National Disaster Committees (Directory A attached to this procedure) to stand by and to notify the members of their Committees (Directory C).
- b. To the Cabinet Secretary, for him to notify the Prime Minister and his office to notify all the Permanent Secretaries about the situation (Directory B).
- c. To District Committees, to turn on their radios and notify key personnel in their Districts about the situation.

9.- If the tropical cyclone goes out of the alert area, then give the 'all clear' to all the personnel cited above and go to END OF PROCEDURE.

10.- Request, 24 hours before impact (Warning Alert 1), the following:

- d. To the Chairpersons of National Disaster Committees, to attend the pre-strike meeting. The Director will indicate location, date and time of the meeting.
- e. To the Cabinet Secretary, to notify the Prime Minister and for his office to notify all the Permanent Secretaries and request them to attend the 'Pre-strike meeting'. The Cabinet Secretary will indicate location, date and time of the meeting.
- f. To District Committees, to turn on their radios and notify key personnel in their Districts.
- g. To the rest of personnel from teams # 1 and # 2 (Directory D) to request their attendance at the 'Pre-strike meeting'.

11.- Proceed to hold the 'Pre-strike meeting'.

12.- If the tropical cyclone goes out of the alert area, give the 'all clear' notification to all the personnel cited in Directory A and go to END OF PROCEDURE.

13.- Request, 12 hours before impact, (Warning Alert 2) the following:

- a. To the Chairpersons of National Disaster Committees, to notify the members of their Committees about the situation (Directory C).
- b. To the Cabinet Secretary, to notify the Prime Minister and all the Permanent Secretaries (Directory B).
- c. To District Committees, to turn on their radios and notify key personnel in their Districts.
- d. To the rest of the personnel from team #1 and team #2 (Directory D), to prepare personnel, information, vehicles and equipment in case of impact.

14.- If the tropical cyclone goes out of the alert area, give the 'all clear' notification to all the personnel cited in Directory A and go to END OF PROCEDURE.

15.- Request, 6 hours before the impact (Warning Alert 3), the following:

- a. To the Chairpersons of National Disaster Committees, for them to notify the members of their Committees about the situation (Directory A).
- b. To the Cabinet Secretary, to notify the Prime Minister and for his office to notify all the Permanent Secretaries (Directory B).
- c. To District Committees, to turn on their radios and notify key personnel in their Districts.
- d. To LUCELEC to discuss the shutting down of electricity services two hours before impact or earlier if wind speed increases and public safety requires it.
- e. To the rest of personnel from Teams # 1 and # 2 (Directory D) to stand by during the impact and to be ready to go to the EOC if it has to be activated after the 'all clear' is given after the hurricane has left.

16.- After being notified by the Meteorological Service that the tropical cyclone has gone out of the alert area, give the 'all clear' to all the personnel cited in Directory A and go to END OF PROCEDURE.

After the Impact:

17.- Receive from the Meteorological Service the notification that the outer edge of the tropical cyclone has left the alert area ('all clear').

18.- Evaluate the need to activate the EOC.

19.- After the 'all clear' is received by the Meteorological Service, and if the EOC is to be activated, the Director will notify Teams # 1 and # 2 (Directory D) and request the attendance of the members of Team #1 at the EOC immediately.

B.- The Deputy Director of NEMO shall:

Permanent:

1.- Assist the Director to ensure that the directories of the persons involved in the plan that have to be notified are updated regularly and that a copy is kept at NEMO.

2.- Keep one copy of the updated directories at the office and one at home.

3.- Keep one copy of this procedure at the office and one at home.

4.- Assist the Director to ensure that the members of the EOC update the directories of the personnel and organisations they have to notify at least before the hurricane season.

5.- Assist the Director to revise and update this procedure at least once a year before the hurricane season and always after a simulation exercise in which it is tested and after a real event.

Immediately before the Impact:

6.- Assist the Director with the notification to all agencies indicated in this procedure as follows:

Watch	(36 hours before impact)
Warning Alert 1	(24 hours before impact)
	• Pre-Strike meeting called by NEMO at this stage.
Warning Alert 2	(12 hours before impact)
Warning Alert 3	(6 hours before impact)
'All clear'	Outer edge of the cyclone out of the alert area.
	Watch Warning Alert 1 Warning Alert 2 Warning Alert 3 'All clear'

After the Impact :

7.- Assist the Director with the notification of the 'all clear'.

- 8.- If the EOC is activated, assist the Director to notify teams #1 and #2.
- 9.- Assist the Director to update this procedure after a real event has happened.

C.- The Cabinet Secretary shall:

Permanent:

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

Immediately before the Impact:

2.- Notify the Prime Minister and the Permanent Secretaries in the following stages:

•	Watch Warning Alert 1	(36 hours before impact) (24 hours before impact)
	warning mere r	• Pre strike meeting called by NEMO at this stage
-	Warning Alert 2	(12 hours before impact)
	Warning Alert 3	(6 hours before impact)
•	'All clear'	Outer edge of the cyclone out of the alert area.

3.- Keep contact with NEMO Director to be informed about the meteorological situation and about the response given.

After the Impact:

4.- Notify the Prime Minister and the Permanent Secretaries when the 'all clear' is given.

5.- If the EOC is activated, inform the Prime Minister and go to the EOC.

D.- NEMO's Secretary shall:

Permanent:

1.- Keep the directories of this procedure updated.

2.- Keep a copy of the directories at the office and one at home.

3.- Keep a copy of this procedure at the office and one at home

4.- At the beginning of the hurricane season provide two copies of the updated directories to the Director and two to the Deputy Director of NEMO.

Immediately before the Impact:

5.- Assist the Director and the Deputy Director to notify all the agencies and organisations mentioned in this procedure according to the following stages of warning:

•	Watch Warning Alart 1	(36 hours before impact)		
-	Warning Alert 1	(24 hours before impact)		
		• 'Pre-Strike meeting' called at this stage		
•	Warning Alert 2	(12 hours before impact)		
•	Warning Alert 3	(6 hours before impact)		
•	'All clear'	Outer edge of the cyclone out of the alert area.		

After the Impact:

6- Assist the Director and the Deputy Director to notify all the agencies and organisations mentioned in this procedure when the 'all clear' is given.

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

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

E.- The Chairpersons of Disaster Committees shall:

Permanent:

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

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

Immediately before the Impact:

3.- Notify the members of their Committees (Directory C) according to the situation and immediately after receiving notification from NEMO Director as follows:

- Watch (36 hours before impact)
- Warning Alert 1 (24 hours before impact)

• Pre-strike meeting called by NEMO at this stage.

- Warning Alert 2 (12 hours before impact)
- Warning Alert 3 (6 hours before impact)
- 'All clear' Outer edge of the cyclone out of the alert area

After the Impact:

4.- Notify the members of the Committee about the 'all clear' and, if it is the case, about the activation of the EOC.

5.- After the first 12 hours in the EOC ask their substitute (from Team # 2) to go to the EOC.

Attachment 1: Directories

Directory A: Persons/agencies to be notified by NEMO Director.

Directory B: Persons to be notified by Cabinet Secretary Office.

Directory C: Persons/organisations to be notified by Chairpersons of the National Disaster Committees.

Directory D: Team # 1 and Team # 2. To be notified by NEMO's Director when the EOC is activated.

END OF PROCEDURE

Attachments:

Attachment 1: Directories.

Directory A: Persons/agencies to be notified by NEMO Director.

Notify at

- Watch 36 hours before impact
- Warning Alert 1: 24 hours before impact
 - Pre Strike meeting called by NEMO at this stage.
- Warning Alert 2: 12 hours before impact
- Warning Alert 3: 6 hours before impact
- 'All Clear' Before or after impact
- EOC activation

1.- NEMO members others than committees' chairpersons

The Cabinet Secretary. Commissioner of Police Fire Chief Chief Medical Officer Comptroller of Customs

2.- Chairpersons National Disaster Committees

Transportation Disaster Committee Supply Management Disaster Committee Telecommunications Disaster Committee Damage Assessment Disaster Committee Information Disaster Committee Welfare Disaster Committee Emergency Works/Rehabilitation/Reconstruction Disaster Committee Shelter Management Disaster Committee. Oil Pollution Action Committee [OPAC] Hospitality Crisis Management Unit

2.- Chairpersons District Disaster Committees

Local Disaster Committee Gros Islet

Local Disaster Committee Castries North Local Disaster Committee Castries North East/Barbonneau Local Disaster Committee Castries South East Local Disaster Committee Castries East Local Disaster Committee Castries Central Local Disaster Committee Castries South * Local Disaster Committee Anse La Raye Local Disaster Committee Canaries Local Disaster Committee Soufriere Local Disaster Committee Choiseul Local Disaster Committee Laborie Local Disaster Committee Vieux Fort North * Local Disaster Committee Vieux Fort South Local Disaster Committee Micoud North Local Disaster Committee Micoud South Local Disaster Committee Dennery North Local Disaster Committee Dennery South

Not established as of June 29th, 2002.

Directory B: Persons to be notified by the Cabinet Secretary Office:

Permanent Secretary Finance, International Financial Services, Economic Affairs and Information.
Permanent Secretary Ministry of External Affairs
Permanent Secretary Education, Human Resource Development, Youth and Sports.
Permanent Secretary Commerce, Tourism, Investment and Consumer Affairs.
Permanent Secretary Planning, Development, Environment and Housing.
Permanent Secretary Health, Human Services and Family Affairs.
Permanent Secretary Social Transformation, Culture and Local Government.
Permanent Secretary Labour Relations, Public Service and Co-operatives.
Permanent Secretary Communications, Works, Transport and Public Utilities.
Permanent Secretary Agriculture, Forestry and Fisheries.
Permanent Secretary Attorney General and Minister for Justice.

<u>Directory C: Persons/organisations to be notified by Chairpersons of the National Disaster</u> <u>Committees</u>

Watch	36 hours before impact
Warning Alert 1:	24 hours before impact

Warning Alert 2:	12 hours before impact
Warning Alert 3:	6 hours before impact
'All clear'	After Impact.

<u>1.- Transportation Disaster Committee</u> Deputy Chairperson-Air Transport Representative- Ground Transport Representative-Shipping Coast Guard Commander Chief Pilot, Air and Sea Port Authority Representative of the Tourism Sector (SLTB)

2.- Supply Management Disaster Committee Chairperson-Representative of Service Clubs. Deputy Chairperson-Representative of CARITAS Antilles **Rep-** Saint Lucia Rotary Clubs **Rep-Saint Lucia Red Cross** Rep- Kiwanis Club Rep-Lion's Club **Rep-** Toast Masters Club Rep- Optimist Club Rep- Adventist Development and Relief Agency **Rep-** Salvation Army **Rep-** Saint Lucia Boy Scouts **Rep-** Saint Lucia Girl Guides **Rep-** Saint Lucia Cadet Corps Supplies Officer Ministry of Commerce Controller or Rep-Customs and Excise Department Rep WASCO Representative. Ministry of Social Transformation, Culture and Local Government **Rep-Chamber of Commerce** Rep-Tourism Sector. (SLTB) Rep-Rotarak Club Rep-Leo Clubs

3.- Telecommunications Disaster Committee

Deputy Chairperson- To be nominated by the Permanent Secretary, Ministry of Communications, Works, Transport and Public Utilities. Representative- Cable and Wireless. Rep-Amateur Radio Rep-Citizens' Band Co-ordinator, Radio Operator Emergency Response Group Rep-Tourism Sector (SLTB)

<u>4.- Damage and Needs Assessment Disaster Committee</u>
Director of Meteorological Services
Director of Saint Lucia Tourist Board.
Rep- Ministry of Agriculture
Rep- Department of Statistics
Rep- Banana Companies/WIBDECO
Rep-Chamber of Commerce
Rep- Ministry of Health, Human Services and Family Affairs.
Rep- Ministry of Education, Human Resource Development, Youth and Sports
Rep- Cable and Wireless
Rep- WASCO
Rep-LUCELEC
Construction and Engineering Associations, Architects and Quantity Surveyors.

5.- Information Disaster Committee SLU-GIS The Media

<u>6.- Welfare Disaster Committee</u>
Chairperson-President of the Saint Lucia Red Cross Society
Deputy Chairman-Chief Medical Officer or Representative of MOH
Director General- Saint Lucia Red Cross
All Hospital Administrators
Chief Environmental Health Branch
Head-Nutrition Unit, MOH
Saint John's Ambulance Brigade
Rep-Fire Department
Coast Guard
Saint Lucia Cadet Corps
Director-Social Services. Ministry of Social Transformation
Rep-Tourism Sector. SLTB

<u>7.- Emergency Works/Rehabilitation/Reconstruction Disaster Committee</u>
 Deputy Chairman-Permanent Secretary, Ministry for Planning, Development, Environment and Housing.
 Town Clerk, Castries City Council
 Rep-LUCELEC

Rep- WASCO Rep-Cable and Wireless Planning Officer Ministry of Health Director Community Services and Local Government Executive Director-Saint Lucia Hotel and Tourism Association.

<u>8.- Shelter Management Disaster Committee</u> Chairperson. The Chief Education Officer, Ministry of Education. School Principals.

<u>9.- Oil Pollution Action Committee[OPAC]</u>
Ministry for Planning (Deputy Chairperson)
Royal Saint Lucia Police Force
Saint Lucia Marine Police Unit (OSC)-(Sea)
Fire Service (OSC-Land)
Fisheries Department
Solid Waste Management Authority
Shell Antilles & Guiana's LTD Bulk Station
Texaco Bulk Station
HESS Oil (Saint Lucia Ltd.)
Ministry for External Affairs, International Trade and Civil Aviation.
Caribbean Environmental Health Institute (CEHI)
National Conservation Authority

10 Crisis Management Disaster Committee		
Coordinator/Chairperson	-	SLTB
Head Crisis Management Unit	-	SLTB
Head Communications Unit	-	SLTB
NEMO Liaison	-	SLTB/SLHTA
Evaluation/Information	-	SLTB
Emergency Works/Rehabilitation	-	SLHTA/SLTB
Supply Management	-	SLHTA
Health/Welfare	-	SLTB
Telecommunications	-	SLTB
Transportation	-	SLTB
Ground Handlers	-	Saint. Lucia Reps

Directory D- Team # 1 and Team # 2. Emergency Operations Centre.

After the 'all clear' is given and the decision to activate the EOC has been taken, the Director notifies Teams #1 and #2.

Team one should go immediately to the EOC.

Team # 1: The Cabinet Secretary National Disaster Coordinator Permanent Secretary, External Affairs Chief Medical Officer Police Commissioner Chief Fire Officer The Principal Information Officer The Permanent Secretary, Ministry of Tourism Amateur Radio and Citizen Band Chairpersons of all the Disaster Committees Red Cross Representative SLASPA Representative Stenographer/typist

After 12 hours Team 2 should be in the EOC.

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

<u>Saint Lucia National Emergency Management Plan</u> <u>Saint Lucia National Hurricane Plan</u>

Emergency Procedure HP-100 Emergency Operations Centre (National)

Version:

Version 1. June 29th, 2002.

Objectives

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

Responsible for the Procedure:

Main:

The Director of NEMO

Secondary:

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

Steps of the Procedure.

A.- The Director of NEMO shall

Permanent:

1.- Ensure the Emergency Operation Centre is in good shape and has all information needed at all times.

2.- Organise, plan execute and evaluate simulation exercises for the activation and operation of the EOC.

Immediately before the Impact:

3.- After the Warning Alert 3 is given, should stay in NEMO Headquarters accompanied by 2 Police officers and one Amateur Radio Operator.

4.- Ensure that the EOC has all equipment, information and materials needed for its operations if it has to be activated after the 'all clear':

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

After the Impact:

5.- Consult with the Cabinet Secretary and other EOC members as necessary, once the 'all clear' message has been received from the Met Service, about the activation of the EOC based on the reports about damage.

6.- If the situation does not demand the activation of the EOC, dispatch the Police/SSU elements and the Radio Amateur home and go to END OF PROCEDURE.

7.- If he situation demands the activation of the EOC, proceed with the notification to the EOC members Team # 1 as described in the Notification Procedure (HP-050)

8.- Set up the EOC with the assistance of the Police officers and the Radio Operator.

9.- Receive and brief all EOC members at their arrival

10.- Ensure that EOC members finally set up the EOC.

11.- Co-ordinate all activities in the EOC. During his/her absence from the EOC, be substituted by the Deputy Director or by the Cabinet Secretary.

12.- Ensure, immediately after the EOC is activated, that the Transportation Committee provides aerial transportation for the initial damage assessment flight.

13.- Participate in the initial damage assessment flight along with the Prime Minister, the Damage Assessment Committee and the Works/Rehabilitation/Reconstruction Committee Chairpersons.

14.- Brief, once in the EOC, the EOC members after the initial damage assessment flight.

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

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

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

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

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

20.- Be informed verbally by main responsible members of action taken for specific messages.

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

22.- After 12 hours of EOC operation, with the assistance of all EOC members and NEMO personnel, ensure that Team 2 is notified and called to the EOC.

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

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

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

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

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

28.- Along with the rest of the EOC, consider the disaster situation, and after consulting with the Cabinet Secretary and/or the Prime Minister, take the decision of deactivating the EOC.

29.- After the EOC deactivation, based on the disaster situation and after consulting with the rest of the EOC members, decide about the activation of a 'Task Force' based in the NEMO headquarters to conduct the rehabilitation and reconstruction issues that have to be conducted.

30.- Co-ordinate the work of the Task Force.

B.- The Deputy Director of NEMO shall:

Permanent:

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

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

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

Immediately before the Impact:

4.- Six hours before impact, and after consulting with NEMO Director, leave NEMO headquarters and go home until the all clear is given or until his presence is needed at NEMO headquarters.

5.- Communicate at all times with NEMO Director in order to know the situation due to the impact of the tropical cyclone.

After the Impact:

6.- After the all clear is given, contact NEMO Director to decide whether to stay home or to go to the EOC.

7.- After 12 hours of activating the EOC, go to the EOC and substitute for the Director of NEMO as Co-ordinator of the EOC and its operations.

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

- 9.- After 12 hours of being in the EOC, be substituted by NEMO Director in the EOC.
- 10.- Before leaving the EOC, brief NEMO's Director on the situation and pending issues.
- 11.- Repeat steps 6 to 10 until deactivation of EOC.
- 12.- Revise and update this procedure after every real event.

C.- The Cabinet Secretary shall:

Permanent:

1.- Know the National Hurricane Plan and its Emergency Procedures.

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

Immediately before the Impact:

3.- Be notified about the meteorological situation according to emergency procedure HP-050.

4.- Six hours before impact, be informed by NEMO Director about the status in NEMO Headquarters and personnel therein.

After the Impact:

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

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

7.- After the 'all clear' is given, and the decision of activating the EOC has been taken, go to the EOC.

8.- When arriving at the EOC, be briefed by the EOC Director.

9.- Assist and advise the EOC chairperson in the co-ordination of the EOC.

10.- During NEMO's Director absence from the EOC, act as chairperson of the EOC and coordinate all activities therein.

11.- Remain in the EOC and advise the Director of NEMO in any situation that demands his/her opinion/decision or the Prime Minister's.

12.- Contact and consult the Prime Minister as he/she thinks fit regarding any message and situation that demands the Prime Minister's decision.

D.- The Members of the EOC shall:

Permanent:

1.- Know the Saint Lucia National Hurricane Plan and its procedures and participate in the planning process by revising and updating them regularly under NEMO Director's co-ordination.

2.- Know their role in the EOC and determine their own needs regarding equipment, materials, stationery, information and others.

3.- Meet regularly with the Committee members in order to improve the plan and its procedures, identify roles and assign to the Committee members responsibilities regarding preparedness and response.

4.- Jointly with the Committee members define mechanisms of co-ordination and communication in the case of an emergency or a disaster, particularly from the Chairperson in the EOC to all the members.

Immediately before the Impact:

- 5.- Ensure that everything they would need in the EOC is ready in the case of its activation
 - Information Plan and procedures Formats Forms Maps Stationery Communications equipment Directories Inventories

6.- Ensure that the organisations/persons they would have to contact from the EOC are on standby and have everything ready in case the EOC is activated.

7.- Be notified and notify the Committee members about hurricane watch and hurricane warnings as indicated in Emergency Procedure HP-050.

After the Impact:

8.- After the 'all clear' is given, and the decision of activating the EOC has been taken, go to the EOC.

9.- Before going to the EOC notify the organisations/persons they would have to contact from the EOC to be in place and to wait for instructions from the EOC.

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

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

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

12.- Be briefed on the situation and pending issues.

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

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

15.- Respond to every message that demands attention.

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

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

18.- Establish permanent communication with the members of their committee/ministry/organisation that are taking action in sectoral EOC's, in the Ministries, in the field or in their offices.

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

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

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

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

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

24.- At all times, provide information and resources, as possible, to the EOC members.

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

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

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

E.- NEMO's Secretary shall:

Permanent:

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

2.- Before the hurricane season, assist the Director and the Deputy Director of NEMO to ensure that the EOC has all equipment, information and materials needed for its operations if it has to be activated after the 'all clear':

Communications Stationery Maps

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

Immediately before the Impact:

3.- Six hours before the impact, ensure that NEMO Headquarters has enough supply of food and stationery for those who are staying there during the storm.

4.- Go home and stay in permanent communication with the Director.

After the Impact:

5.- After the 'all clear' is given and if the EOC is activated, go to the EOC.

6.- Report in the EOC to the Director of NEMO.

7.- Be in charge of the management of internal EOC supplies: food, stationery, photocopies, etc., and others needed by the EOC.

8.- Provide the EOC chairperson with information needed from NEMO for the operations of the EOC: directories, files, etc.

9.- Assist the Radio Operator with the receipt and record of messages in the log sheets.

10.- Assist the Runner with the copying and distribution of messages to the EOC members

11.- Assist the EOC members with turning the log sheets to the EOC chairperson.

12.- Assist the Director and Deputy Director in any other need.

13.- Assist the Director and the Deputy Director in the deactivation of the EOC.

14.- After 12 hours leave EOC and return 12 hours later.

F.- The Message Receiver (Runner) shall:

Permanent:

1.- Revise and improve this procedure and the log sheet including comments from NEMO and EOC members.

Immediately before the Impact:

2.- 24 hours before impact of the cyclone, contact NEMO's secretary to ensure that at least 100 copies of the log sheet can be available in the EOC in case it is activated.

After the impact:

3.- After the 'all clear' is given and the decision of activating the EOC has been taken, go to the EOC.

- 4.- Ensure that enough copies of the log sheet are available.
- 5.- Once in the EOC report to the Director.
- 6.- Contact the Radio Operator.
- 7.- Find out about any messages that have been received in the EOC and their status.
- 8.- Log the messages and turn over them if they have not been turned over to the EOC members.
- 9.- Be informed about every message that is received in the EOC.
- 10.- Log every message received in the EOC in the log sheet form.
- 11.- Give copies of the log sheet for action to be taken to:
 Chairperson
 Members of the EOC
 Main EOC member responsible for action
 Secondary EOC members responsible for action
 Other EOC members, for their information.
 Situation Reporter (shares with damage assessment logger)

12.- If the message involves information about damage, always give a copy to the damage assessment chairperson and one to the damage logger.

13.- Shout: 'Incoming!' every time that he/she delivers a message to the EOC chairperson or to any EOC member.

14.- Assist the EOC chairperson to have a sequential record of all log sheets including incoming messages and action taken by EOC members.

15.- After the EOC is deactivated, revise the log sheets and deliver them to the chairperson.

G.- The Situation Reporter shall:

Permanent:

1.- Revise and improve the situation report sheets

2.- Participate in simulation exercises.

Immediately before the Impact:

3.- Twenty four hours before impact contact NEMO to ensure that enough situation report sheets are either in the EOC or will be brought by him/her if it is activated.

After the Impact:

4.- After the 'all clear' is given and if the EOC is activated go to the EOC.

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

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

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

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

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

10.- Return to the EOC twelve hours later.

H.- The Damage Assessment Logger shall:

Permanent:

1.- Revise and improve the situation report sheets

Immediately before the Impact:

2.- Twenty four hours before impact contact NEMO to ensure that enough damage assessment report sheets are either in the EOC or will be brought by him/her if it is activated.

After the Impact:

3.- After the 'all clear' is given and if the EOC is activated go to the EOC.

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

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

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

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

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

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

10.- Return to the EOC twelve hours later.

Attachments:

- 1.- Log sheet (messages)
- 2.- Situation report sheet (not shown)
- 3.- Damage assessment sheet (not shown)

END OF PROCEDURE

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LOG SHEET		NUMBER		
INCIDENT NO				
		DEADLI		
NORMALURGENT RESPONSE_GIVEN		DEADLI		
TIME RECEIVED (EOC) TIME OF ACTION (EOC MEMBER)				
COMPLETION TIME (RETURNED TO EOC CE	IAIRPERSON) ribution List			
		C 1	Outer fear	Other
EOC Member	Primary Action	Secondary Action	Only for Information	Other
Cabinet Secretary				
EOC Chairperson (NEMO)				
Situation Reporter				
Damage Assessment Logger				
NEMO Secretary				
Radio operator				
Telecommunications Committee				
Transportation Committee				
Chief Medical Officer				
Welfare Committee				
Damage and Needs Assessment Committee				
Supply Management Committee				
Works and Rehabilitation Committee				
Shelter Management Committee				
OPAC				
Ministry of Tourism/CMU				
Ministry of External Affairs				
Royal Saint Lucia Police Force				
Saint Lucia Fire Service				
Government Information Systems GIS				
SLASPA	1			

Comptroller of Customs

<u>Saint Lucia National Emergency Management Plan</u> <u>Saint Lucia National Hurricane Plan</u>

Emergency Procedure HP-150 Telecommunications

Version

Version 1. June 29th, 2002.

Objectives

To ensure that telecommunications are provided to NEMO and the EOC and its members in the case of the threat and impact of a tropical cyclone in order to conduct and co-ordinate the national emergency response.

Responsible for the Procedure:

Main:

The Chairperson of the Telecommunications Committee.

Secondary:

- Committee Members: Police Fire Service Cable and Wireless, Digitel and AT & T. Amateur Radio Ministry of Works Citizen's Band Radio Operator Emergency Response Group
- EOC members

Steps of the Procedure.

A.- The Chairperson of the Telecommunications Committee shall:

Permanent:

1.- Develop a telecommunications plan to ensure that an adequate communications system to serve the communications needs for the NEMO before, during and after, exists.

2.- Advise NEMO on communications matters.

3.- Advise on the purchase of emergency telecommunications equipment for the island and advise on the improvement, maintenance and upgrading of this equipment.

4.- Establish a dynamic inventory of all equipment purchased by NEMO.

5.- Nominate a radio operator-training officer and monitor his/her performance.

6.- Develop and implement a radio operator-training programme in association with the radio operator-training officer through the facilities of NEMO.

7.- Make annual review and revision of the radio operator-training programme.

8.- Develop and conduct a simulation exercise to test equipment on an annual basis under the coordination of NEMO. This exercise should be conducted before every hurricane season, preferably during the month of May.

9.- Assist in preparing, participating in and assessing joint annual exercises with all response services of NEMO and submit after-action reports to the NEMO.

10.- Maintain a list of human and material resources.

Immediately before the Impact:

11.- Twenty four hours before the impact (Alert 1), attend the pre-strike meeting and inform about the status of telecommunications in general, and in particular communications to and from NEMO and the EOC according to the telecommunications plan and inform about any telecommunications needs.

12.- Immediately after the 'pre-strike meeting', go to NEMO and check all telecommunications equipment.

13.- Six hours before the impact (Alert 3), provide an amateur radio operator for NEMO, to stay at NEMO Office during the hurricane.

After the Impact:

14.- Once the 'all clear' is given and if the EOC is activated, go to the EOC.

15.- Be in charge of telecommunications to and from the EOC.

16.- Manage all emergency telecommunications.

17.- Liaise with the rest of the Disaster Committees and EOC members in order to respond to their needs.

18.- Provide or suggest solutions, regarding telecommunications equipment and other telecommunications resources where needed, according to existing resources in the different agencies in Saint Lucia, and according to the telecommunications plan.

19.- Every 12 hours provide an Amateur Radio Operator for NEMO. When arriving at the EOC, prepare a roster for NEMO Director indicating name and time of arrival of Radio operators at the EOC (1 every 12 hours).

20.- Assist the EOC in the rehabilitation of the telecommunications network.

21.- After the EOC is deactivated, prepare a report with recommendations regarding telecommunications: equipment, personnel, planning, etc.

B.- The Members of the Telecommunications Committee shall:

Permanent:

1.- Assist the Chairperson in providing material and human resources for the design and implementation of the Telecommunications Plan.

2.- Assist the Chairperson in providing material and human resources for training emergency responders at the national and local level in telecommunications issues.

3.- Assist the Chairperson in providing material and human resources for the planning, organisation and execution of the annual telecommunications exercise.

Immediately before the Impact:

4.- Twenty four hours before impact, and after the 'pre-strike meeting, assist the Chairperson to check EOC telecommunications equipment if needed.

5.- Check their own telecommunications equipment.

6.- Stand by and be prepared for the impact of the tropical cyclone.

After the Impact:

7.- After the 'all clear' is given provide telecommunication resources to the EOC and for the better operation of the plan island-wide.

C.- The EOC Members shall:

Permanent:

1.- Identify their telecommunications resources.

2.- Identify the EOC and the Saint Lucia National Hurricane Plan communications needs in the event of a disaster.

3.- Identify their telecommunications needs from the EOC to their own organisation/ agency/ ministry.

4.- Ensure that communication exists during EOC operations between the EOC and their own organisation/ agency/ ministry.

5.- Provide information to the Telecommunications Committee Chairperson regarding telecommunications resources in their own organisation/ agency/ ministry, so that resources can be optimised.

6.- Participate in the design, implementation and testing of the telecommunications plan

7.- Participate in the planning, organisation, execution and evaluation of the yearly telecommunications exercise.

Immediately before the Impact:

8.- Twenty four hours before impact, check their telecommunications equipment and have it ready to bring it to the EOC if it is activated.

9.- Make the necessary tests of all their telecommunications equipment, particularly the equipment that will be used in the EOC.

After the Impact:

10.- After the 'all clear' is given and if the EOC is activated, go to the EOC and bring along the necessary communication equipment to communicate from the EOC to the organisation/ agency/ ministry they have to co-ordinate.

Attachments:

1.- Telecommunications Plan (Not shown)

END OF PROCEDURE

Saint Lucia National Emergency Management Plan Saint Lucia National Hurricane Plan

Emergency Procedure HP-200 Transportation

Version

Version 1 June 29th, 2002.

Objectives

To ensure that transportation is provided to NEMO and the EOC and its members in the event of the threat and impact of a tropical cyclone in order to conduct and co-ordinate the national emergency response.

Responsible for the Procedure:

Main:

Chairperson of the Transportation Disaster Committee

Secondary:

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

Steps of the Procedure.

A.- The Chairperson of the Transportation Committee shall:

Permanent:

1.- Revise and update this procedure regularly.

2.- Maintain a list of available land, sea and air transport resources from the public and private sector.

3.- Maintain links with district and local transport committees.

4.- Update the list of transport every year before the hurricane season. The updated list must be ready every year before the month of June.

5.- Submit the list of transport every year to NEMO before the hurricane season.

Immediately before the Impact:

6.- Twenty four hours before the impact, attend the 'pre-strike meeting' and inform about the available transport (land, air, sea).

7.- In the 'pre-strike meeting' inform about the availability of aerial transportation for the initial damage assessment.

After the Impact:

8.- Once the 'all clear' is given and if the EOC is activated, go to the EOC.

9.- Liaise with other EOC members in order to respond to their transportation needs.

10.- Upon arriving at the EOC co-ordinate with NEMO Director in order to provide transportation to EOC members if needed.

11.- Provide aerial/sea transport for the initial aerial damage assessment. Transportation should be provided for 4-8 persons as follows in order of priority:

Group 1: Prime Minister NEMO Director Damage Assessment Committee Chairperson Works and Rehabilitation Disaster Committee Chairperson SLU-GIS representative (cameraman)

Group 2: Police Commissioner Chief Medical Officer Chairperson Shelter Management Disaster Committee Representative Ministry of Agriculture SLU-GIS representative (cameraman)

12.- Coordinate with NEMO and other EOC members to provide transportation of relief workers.

13.- Coordinate with SLASPA and the Supply Management and the Shelter Management Disaster Committees Chairpersons to provide transportation for relief and rehabilitation supplies from the docks and airport to storage areas, warehouses and shelters.

14.- Co-ordinate with Police and the Shelter Management Committee Chairperson to provide transportation for land and sea evacuation.

15.- Co-ordinate with SLASPA, Police and Tourism to provide transportation for air evacuation.

16.- Co-ordinate with NEMO and other EOC members for transportation of fuel to service points.

17.- Co-ordinate with the Health and Welfare Disaster Committee Chairperson for the transportation of injured inside or outside the island.

18.- Co-ordinate with the Police and the Health and Welfare Disaster Committee Chairperson for the transportation of dead people.

19.- Co-ordinate with the Health and Welfare Disaster Committee Chairperson and with the Ministry of Agriculture to provide transportation for dead animals.

20.- Co-ordinate with the Works and Rehabilitation Disaster Committee Chairperson to provide transportation to assist in road clearing.

21.- Co-ordinate with the Chairpersons of the disaster committees of Works and Rehabilitation, Shelter Management and Damage Assessment and, if needed, with the Saint Lucia Solid Waste Management Authority to provide transportation for garbage collection in roads and shelters.

22.- After 12 hours in the EOC be substituted by the Deputy Chairperson. Come back to the EOC 12 hours later.

23.- Always brief and be briefed by the Deputy Chairperson when arriving and leaving the EOC.

24.- After the EOC is deactivated, prepare a report that includes situations faced, activities executed, results and recommendations.

25.- Revise and update this procedure.B.- The Members of the Transportation Committee shall:

Permanent:

1.- Assist the Chairperson in the elaboration and yearly update of the transport list by providing the number, type, capacity and location of their transport and of their available human resources (drivers, operators, pilots, etc)

Immediately before the Impact:

2.- Twenty four hours before the impact (Alert 1), revise and check the state of all vehicles and transport, their conditions and locations, and fill up gas tanks.

3.- Brief all human resources involved in transportation and request them to report immediately after the 'all clear' is given (drivers, operators, pilots, etc.)

After the Impact:

4.- Provide transportation resources to the chairperson as requested from the EOC as needed.

C.- The EOC Members shall:

Permanent:

1.- Provide information to the chairperson for the elaboration and updating of the list of transportation.

2.- Keep their own lists of transportation vehicles updated at least every year before the hurricane season.

Immediately before the Impact:

3.- Twenty four hours before, revise and check the state of all vehicles and transport, their conditions and locations, and fill up gas tanks (airplanes, helicopters, cars, heavy equipment, trucks, buses, vehicles, boats, ambulances, police cars, etc.)

4.- Brief all human resources involved in transportation and request them to report immediately after the 'all clear' is given (drivers, operators, pilots, etc.)

After the Impact:

5.- After the 'all clear' is given, provide transportation resources to the EOC and to the Transportation Disaster Committee Chairperson as needed in the EOC.

Attachments (Not shown)

1.- List of transport available Land Sea Air
2.- Directory Land transport Sea transport Air transport

Emergency Procedure HP-250 Evacuation

Version

Version 1. June 29th, 2002.

Objectives

To ensure that before, and after the impact of a tropical cyclone, areas at risk are evacuated as needed.

Responsible for the Procedure:

Main:

Commissioner of Police. Royal Saint Lucia Police Force

Secondary:

Chief Fire Officer

Steps of the Procedure.

A.- The Commissioner of Police shall:

Permanent:

1.- Identify, with the assistance of NEMO, all the areas in Saint Lucia that are likely to be flooded or affected by a tropical cyclone.

2.- Establish, in coordination with NEMO and the Meteorological Services, the criteria for evacuation before and after the impact of a tropical cyclone.

3.- Establish co-ordination with NEMO and, at the local level, with the District Disaster Committees to establish and permanently improve evacuation mechanisms.

4.- Establish co-ordination with National Disaster Committees to ensure their assistance in the event of evacuation particularly with the Transportation Committee.

5.- Be provided by NEMO and the Shelter Management Committee Chairperson with the updated list of shelters every year before the hurricane season.

Immediately before the Impact:

6.- Attend the 'pre-strike meeting' and discuss any evacuation matters that may arise. Inquire about the need of an immediate evacuation of specific areas in order to start evacuation immediately.

7.- Alert all police stations and police personnel in the country.

8.- If there is the need of evacuation, start deploying personnel and, in co-ordination with NEMO, the District Disaster Committees and any other Disaster Committee involved, conduct evacuation of specific endangered areas, ensuring that the population and their belongings are at all times safe.

After the Impact:

9.- After the 'all clear' signal is given and the EOC activated, go to the EOC with equipment and information needed.

10.- Report to the EOC Chairperson.

11.- Be informed of the need of evacuation of specific areas.

12.- Deploy police personnel and vehicles (or boats) to co-ordinate evacuation activities.

13.- Request assistance from District Disaster Committees as needed in the case of evacuation.

14.- Request assistance from the Chairperson of the Transportation when transportation and/or drivers are needed to conduct the evacuation process.

15.- Request information and assistance from the Chairperson of the Works/Rehabilitation Committee and from SLASPA representative in the EOC regarding roads cleared and airports, seaports open.

16.- Request information from the Shelter Management Committee regarding shelters.

17.- Assist in the evacuation of specific buildings as needed: hospitals, government buildings and any other that is in danger due to the tropical cyclone effects.

18.- In the event of a precautionary evacuation of tourists from the island, request/offer information and/or assistance from the Ministry of Tourism and its Crisis Management Centre.

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

10.- Return after 12 hours.

21.- After the EOC is deactivated, prepare a final report of the Police Force activities.

B- The Chief Fire Officer shall:

Permanent:

1.- Work jointly with the Police in the tasks regarding this procedure and the National Hurricane Plan.

2.- Know the Hurricane plan, its procedures and his role in it and during an emergency or disaster, particularly his activities regarding evacuation.

3.- Participate in simulation exercises that test this procedure within the National Hurricane Plan.

Immediately before the Impact:

4.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting' as member of the EOC Team # 2.

5.- If there is the need for evacuation as determined by NEMO, work jointly with the Police in the preparations for evacuation of specific areas.

After the Impact:

6.- After the 'all clear' is given and the EOC activated, maintain communication with the Police and work together in any evacuation issues as needed.

Attachments (Not shown)

1.- List/map of areas at risk (flood) in the case of the impact of a tropical cyclone.

2.- Directory of Police and Fire Stations and resources.

3- Inventory of Police and Fire Service means of communication.

Emergency Procedure HP-350 Shelter Management

<u>Version</u>

Version 1. June 29th, 2002.

Objectives

To activate, operate and deactivate shelters in Saint Lucia in the event of a disaster.

Responsible for the Procedure:

Main:

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

Secondary:

Deputy Chairperson Shelter Disaster Management Committee. To be appointed by the Chief Education Officer. Ministry of Education.

Members of the Committee: School Principals Teachers Union Religious Organisations in Saint Lucia Others still to be defined

Steps of the Procedure.

A.- The Chairperson of the Shelter Management Committee shall:

Permanent:

1.- Receive from NEMO, the list of shelters updated yearly before May 31st after the physical inspection of shelters by the Ministry of Works.

- 2.- Distribute the list of shelters to all shelter managers from all shelters mentioned in the list: schools, churches, etc.
- 3.- Ensure that the list of shelters is published in the Gazette yearly.
- 4.- Promote and ensure that schools and other buildings designated as shelters are retrofitted when needed in order to remain considered as shelters.
- 5.- Have a list of personnel responsible for each shelter (shelter managers): school principals, social organisations, churches, etc., permanently updated and ready before May 31st every year including names, phone numbers and addresses of shelter managers and deputies.
- 6.- Design, and or revise and update, a map of Saint Lucia showing location of shelters all over the country to be used permanently for planning purposes and to be used in the EOC.

7.- Ensure that the personnel responsible for shelter activation and operations are trained in shelter management.

- 8.- Maintain permanent contact with NEMO, Police and with District Committee Chairpersons to plan the operations of shelters, particularly regarding activation after evacuation, security and deactivation.
- 9.- Maintain permanent contact with the Health and Welfare, the Damage and Needs Assessment and the Supply Management Committees to plan the operations of shelters, particularly regarding damage to shelters and needs of the sheltered population.
- 10.- Submit, before May 31st every year, the list/directory of personnel responsible for shelter management to NEMO.
- 11.- Have at least one meeting before May 31st each year with all the members of the Committee to revise plan and procedures, resources, inventories, directories and supplies for shelter management and ensure that all members, shelters and shelter managers are ready for the hurricane season.

Immediately before the Impact:

- 12.- Twenty four hours before the impact (Alert 1), attend the 'pre-strike meeting' and discuss any shelter management issues that may arise.
- 13.- After the pre-strike meeting, hold a meeting with the Committee members to inform of the 'pre strike meeting' results and to ensure that personnel responsible for shelters are notified

immediately of the situation in order to have everything ready in case the shelters have to be activated.

14.- Prepare all the information to be brought to the EOC if it is activated after the 'all clear' (maps, forms, inventories, directories, list of shelters and personnel responsible for their activation and operations, etc.)

After the Impact:

- 15.- Once the 'all clear' is given and the EOC activated: Inform all the members of the Committee. Go to the EOC.
- 16.- Report to the EOC Chairperson.
- 17.- Assist in setting up the EOC.
- 18.- Participate, if necessary and if there is enough available aerial transportation resources, or send someone from the Committee or the Ministry of Health, in the aerial damage assessment and gather information about damage to areas where shelters are located.
- 19.- Ensure that the EOC is briefed about shelter management matters if a member of the Committee or of the Ministry of Education participated in the aerial damage assessment.
- 20.- In case evacuation of endangered/damaged areas is needed, assist the EOC by informing about shelters availability and capacity.
- 21.- Notify immediately, directly or through the Ministry of Education, the personnel responsible for activating the shelters that they have to be activated immediately to receive population from evacuated areas.
- 22.- Co-ordinate with NEMO and the Chairperson of the Information Disaster Committee, to ensure that the District Disaster Committees are notified about the activation of shelters and that the population in general is notified through Media broadcast about this situation, particularly those from endangered/affected areas that have to be evacuated.
- 23.- Co-ordinate with the Health and Welfare and the Supply Management Committees' Chairpersons regarding any needs in the activated shelters.
- 24.- Always inform the Damage and Needs Assessment Committee Chairperson about damage and needs in shelters.

- 25.- Co-ordinate with the Police for any security problems that arise in shelters.
- 26.- Co-ordinate with the Damage and Needs Assessment and the Transportation Committees' Chairpersons, the Police and NEMO in the case where areas with already-activated shelters are in danger and have to be evacuated. Indicate possible alternate shelters and their capacities so evacuation can be planned and conducted.
- 27.- Prepare reports at least every 12 hours and when needed in the EOC about the operation of the shelters.
- 28.- Deactivate (and activate) shelters only when the decision is to do so with NEMO and the rest of the EOC members involved.
- 29.- After 12 hours of activation of the EOC, leave the EOC and be substituted by the Deputy Chairperson of the Shelter Committee.
- 30.- Return 12 hours later to the EOC and substitute for the Deputy Chairperson.
- 31.- Always brief and be briefed by the Deputy Chairperson of the Shelter Management Committee when arriving or leaving the EOC.
- 32.- After the EOC is deactivated, prepare a final report and participate in the rehabilitation/reconstruction Task Force that would remain in NEMO Headquarters if needed.
- 33.- Participate, as needed, in the reconstruction process to ensure that mitigation measures are included in buildings that are considered as shelters.
- 34.- Revise and update this procedure.

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

Permanent:

- 1.- Assist the Chairperson in his/her tasks regarding this procedure and the National Hurricane Plan.
- 2.- Know the Hurricane Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his/her activities regarding shelter management.

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

Immediately before the Impact:

- 4.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting' as member of the EOC Team # 2.
- 5.- Assist the Chairperson in his/her preparations for the cyclone impact.

After the Impact:

- 6.- After the 'all clear' is given and the EOC activated, maintain communication with the Chairperson and assist him/her in any shelter management matters as needed.
- 7.- Substitute the Chairperson in the EOC every 12 hours after the EOC activation.

Attachments (Not shown).

- 1.- Directory of personnel responsible to activate and run shelters.
- 2.- List of shelters including phone number, address and capacity.
- 3.- Saint Lucia map showing location of shelters and capacity of each shelter.
- 4.- Format for Shelter Managers

Emergency Procedure HP-400 Land Search and Rescue

Version.

Version 1. June 29th, 2002.

Objectives.

To search and rescue personnel and their belongings, missing, lost or affected in land due to the hurricane effects.

Responsible for the Procedure.

Main:

Chief Fire Officer. Saint Lucia Fire Service.

Secondary:

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

Steps of the Procedure.

A.- The Chief Fire Officer shall:

Permanent:

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

Search and rescue of trapped persons to include: Vehicle extraction Rescue from collapsed buildings High angle rescue First aid treatment for disaster victims Triage and hospital evacuation of victims Immediately before the Impact:

2.- Attend the 'pre-strike meeting' and discuss any land search and rescue matters that may arise.

3.- Alert all fire stations personnel in the country and instruct them to report for duty immediately after the impact, if it occurs.

4.- Check all vehicles and equipment that would be used in search and rescue operations and ensure they are in safe locations and ready to be used, if needed, after the impact of the tropical cyclone.

After the Impact:

5.- After the 'all clear' signal is given and the EOC activated, go to the EOC with equipment and information needed.

6- Report to the EOC Chairperson.

7.- Be informed of the need for land search and rescue in specific areas or buildings.

8.- Deploy fire service personnel, equipment and vehicles to co-ordinate and execute search and rescue activities where needed.

9.- Provide the on-scene commander for search and rescue, and fire fighting operations.

10.- Request assistance from the Chairperson of the Transportation and the Chairperson of the Works and Rehabilitation Committee when transportation, heavy equipment and/or drivers are needed to conduct the search and rescue operations.

11.- Co-ordinate with the Police Force and the Health and Welfare Committee Chairperson in search and rescue operations.

12.- Provide assistance, if needed, to the Police in the case of maritime search and rescue.

13- After 12 hours be substituted by the Deputy Chief Fire Officer.

14.- Return after 12 hours.

15.- After the EOC is deactivated, prepare a final report of the Fire Service activities.

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

Permanent:

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

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

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

4.- Work jointly with the Chief Fire Officer in order to identify and optimise resources that would be used in search and rescue in the case of an emergency or a disaster.

Immediately before the Impact:

5.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting' as member of the EOC Team # 2.

6.- Work jointly with the Chief Fire Officer in the preparations of resources for search and rescue.

After the Impact:

7.- After the 'all clear' is given and the EOC activated, establish communication with the Chief Fire Officer and assist him with Police resources in land search and rescue matters as needed.

Attachments. (Not shown).

1.- Directory of trained personnel for land search and rescue.

2.- Inventory of search and rescue equipment.

Emergency Procedure HP-401 Maritime Search and Rescue

<u>Version</u>

Version 1. June 29th, 2002.

Objectives

To search for, and rescue personnel and their belongings, boats and other craft lost in the sea or affected due to the hurricane effects.

Responsible for the Procedure:

Main:

The Commissioner of Police. Royal Saint Lucia Police Force

Secondary:

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

Steps of the Procedure.

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

Permanent:

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

Immediately before the Impact:

2.- Attend the 'pre-strike meeting' and discuss any maritime search and rescue matters that may arise.

3.- Alert the Police Maritime Unit and instruct it to report for duty immediately after the impact if it occurs.

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

After the Impact:

5.- After the 'all clear' signal is given and the EOC activated, go to the EOC with information needed.

6- Report to the EOC Chairperson.

7.- Be informed of the need of maritime search and rescue in specific areas.

8.- Deploy the Maritime Unit personnel, equipment and boats to co-ordinate and execute maritime search and rescue activities where needed.

9.- Provide the on-scene commander for maritime search and rescue operations.

10.- Request assistance from the Chairperson of the Transportation when maritime, aerial or land transportation is needed to conduct maritime search and rescue operations.

11.- Co-ordinate with the Fire Service, the Chief Medical Officer and the Welfare Committee Chairperson for assistance needed during and/or after maritime search and rescue operations.

12.- Provide assistance, if needed, to the Fire Service in the case of land search and rescue.

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

14.- Return after 12 hours.

15.- After the EOC is deactivated, prepare a final report of the Maritime Unit search and rescue activities.

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

Permanent:

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

2.- Know the Hurricane plan, its procedures and his role in it and during an emergency or disaster, particularly his activities regarding maritime search and rescue.

3.- Participate in the formulation of comprehensive marine search and rescue plans, training programmes and simulations to cope with maritime search and rescue.

3.- Participate in simulation exercises that test this procedure and/or Police Force Maritime Unit within the National Hurricane Plan.

Immediately before the Impact:

4.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting' as member of the EOC Team # 2 and discuss any maritime search and rescue matters that may arise.

5.- Assist the Commissioner of Police in his preparations for the cyclone impact.

6.- Alert the Maritime Unit and its resources to be ready to respond once the 'all clear' is given, and as needed.

After the Impact:

7.- After the 'all clear' is given and the EOC activated, maintain communication with the Police Commissioner and co-ordinate the maritime search and rescue activities.

8.- Request additional resources, if needed, from the EOC.

9.- After the search and rescue operations have finished, prepare a report of activities.

Attachments (Not shown)

1.- Directory of Police Maritime Unit and maritime search and rescue personnel

2.- Inventory of maritime search and rescue boats and equipment.

Emergency Procedure HP-450 Security

<u>Version</u>

Version 1. June 29th, 2002.

Objectives

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

Responsible for the Procedure:

Main:

Commissioner of Police. Royal Saint Lucia Police Force

Secondary:

Deputy Commissioner of Police. Royal Saint Lucia Police Force

Steps of the Procedure.

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

Permanent:

1.- Identify, with the assistance of NEMO, all the areas, infrastructure, buildings and activities in Saint Lucia that are likely to need security in the event of an emergency or a disaster; these may include:

EOCs Key governmental buildings Hospitals Banks Affected and/or evacuated areas Shelters Warehouses, supermarkets and stores Airports and seaports Immediately before the Impact:

2.- Attend the 'pre-strike meeting' and discuss any security matters that may arise. Inquire about the need of immediate security that has to be provided if needed.

3.- Alert all police stations and police personnel in the country and instruct them to report for duty immediately after the impact if it occurs.

4.- Six hours before impact establish contact with NEMO Director and send two policemen or SSU members to the EOC for security purposes. Change the policemen every 12 hours until the EOC is deactivated.

After the Impact:

5.- After the 'all clear' signal is given and the EOC activated, go to the EOC with equipment and information needed.

6- Report to the EOC Chairperson.

7.- Be briefed by the security personnel in the EOC.

8.- Change the security personnel in the EOC every 12 hours until the EOC deactivation.

9.- Be informed of the need for security in specific areas or buildings.

10.- Deploy police personnel and vehicles (or boats) to co-ordinate security activities.

11.- Request assistance from the Chairperson of the Transportation Committee when transportation and/or drivers are needed to conduct the evacuation process.

12.- Provide security in Shelters as needed and in co-ordination with district committees and the shelter management committee.

13- Provide security in specific buildings as needed: hospitals, governmental buildings and any other that had been affected and whose assets are endangered.

14.- Provide security in airports and seaports particularly in the event of damage, evacuation, and/reception of goods and supplies from overseas.

15.- Deploy police personnel for crowd control if needed.

16.- Deploy police personnel to prevent and avoid looting in specific areas as needed.

17.- In the case of casualties (deaths), provide security and co-ordinate with the Ministry of Health for subsequent actions.

18.- Establish co-ordination with the CDRU, the RSS or any other military forces who have arrived in the country.

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

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

21.- Return after 12 hours.

22.- After the EOC is deactivated, prepare a final report of the Police Force activities.

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

Permanent:

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

2.- Know the Hurricane plan, its procedures and his role in it and during an emergency or disaster, particularly his activities regarding security.

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

Immediately before the Impact:

4.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting' as member of the EOC Team # 2.

5.- Assist the Police Commissioner in his preparations for the cyclone impact.

After the Impact:

6.- After the 'all clear' is given and the EOC activated, maintain communication with the Police Commissioner and assist him in any security matters as needed.

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

Attachments (not shown)

1.- List of key buildings/locations likely to need security after the impact of a tropical cyclone.

Emergency Procedure HP-500 Medical Attention

Version

Version 1. June 29th, 2002.

Objectives

To provide medical services to, and attention for the affected population after a disaster.

Responsible for the Procedure:

Main:

The Chief Medical Officer. Ministry of Health.

Secondary:

Medical Officer appointed by the Chief Medical Officer.

Steps of the Procedure.

A.- The Chief Medical Officer shall:

Permanent:

1.- Revise and update this procedure at least once a year before the hurricane season and always after a simulation exercise and a real event.

2.- Keep an updated directory of hospitals and clinics in Saint Lucia.

3.- Keep an inventory of resources for medical attention in Saint Lucia: hospitals, clinics and capacity, doctors, ambulances, etc.

4.- Meet regularly with the Health Sector to improve this procedure and improve mechanisms for medical attention of injured personnel in disasters.

5.- Identify human resources in the country for medical attention (physical and mental health). Establish co-ordination mechanisms in the case of a response during a disaster.

6.- Ensure that specific emergency response plans are written for hospitals and for mass casualty management.

7.- Ensure that, in co-ordination with NEMO and the Ministry of Health, training is provided to create mass casualty management teams in the country.

8.- Maintain contact with regional and international organisations to get assistance for training and emergency planning in medical attention during disasters.

9.- Maintain permanent contact with NEMO, the National Disaster Committees and District Committees to strengthen co-ordination mechanisms for health emergency preparedness, emergency response and disaster relief.

Immediately before the Impact:

10.- Twenty four hours before the impact (Alert 1), attend the 'pre-strike meeting' and discuss any medical attention issues that may arise.

11.- After the pre-strike meeting contact key members of the Health Sector to inform of the 'pre strike meeting' and to ensure that personnel responsible for medical attention is notified immediately of the situation in order to have everything ready in case the cyclone impacts the country.

12.- Prepare all the information needed to be brought to the EOC if it is activated after the 'all clear' (maps, forms, inventories, directories, etc.)

After the Impact:

13.- Once the 'all clear' is given and the EOC activated, go to the EOC.

14.- Report to the EOC Chairperson.

15.- Assist in setting up the EOC

16.- Participate, if necessary and if there is enough available aerial transportation resources, in the aerial damage assessment and gather information about damage to areas where medical attention facilities are located or where likely to be needed.

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

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

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

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

21.- Request assistance as needed from the rest of the EOC members, particularly regarding transportation of the injured inside and outside Saint Lucia, road clearing and transportation of medical supplies and resources.

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

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

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

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

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

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

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

29.- After the EOC is deactivated, prepare a final report and participate, if needed, in the rehabilitation/reconstruction Task Force that would remain in NEMO Headquarters.

31.- Participate, as needed, in the reconstruction process to ensure that mitigation measures are included in buildings that are considered as shelters.

32.- Revise and update this procedure.

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

Permanent:

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

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

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

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

Immediately before the Impact:

5.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting'.

6.- Assist the CMO in his/her preparations for the cyclone impact.

After the Impact:

7.- After the 'all clear' is given and the EOC activated, maintain communication with the CMO and assist him/her in any medical attention matters and with the co-ordination of resources from the Health Sector.

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

Attachments.

1.- Directory of hospitals and clinics in Saint Lucia.

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

Emergency Procedure HP-550 Environmental Health

<u>Version</u>

Version 1. June 29th, 2002.

Objectives

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

Responsible for the Procedure:

Main:

The Chief Medical Officer. Ministry of Health.

Secondary:

The Chief Environmental Health Officer. Ministry of Health.

Steps of the Procedure.

A.- The Chief Medical Officer shall:

Permanent:

1.- Revise and update this procedure at least once a year before the hurricane season and always after a simulation exercise and a real event.

2.- Keep an updated directory of environmental health inspectors

3.- Keep an updated inventory of equipment and materials that would be used for environmental health activities in the case of a disaster.

4.- Meet regularly with the Committee members to improve this procedure and improve mechanisms for environmental health.

5.- Ensure that specific plans and or specific procedures are written for environmental health activities during a disaster such as: adequate quality and quantity water supply, food safety, vector control, epidemiological survey and adequate disposal of the dead.

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

7.- Maintain permanent contact with NEMO, other National Disaster Committees and District Committees to strengthen co-ordination mechanisms for environmental health.

Immediately before the Impact:

8- Twenty four hours before the impact (Alert 1), attend the 'pre-strike meeting' and discuss any environmental health issues that may arise.

9.- After the pre-strike meeting, hold a meeting with Key members of the Health Sector, including the Chief Environmental Health Officer, to inform about the 'pre strike meeting' and to ensure that personnel responsible for environmental health are notified immediately of the situation in order to have everything ready in case the cyclone impacts the country.

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

After the Impact:

- 11.- Once the 'all clear' is given and the EOC activated: Inform all the members of the Committee. Go to the EOC.
- 12.- Report to the EOC Chairperson.
- 13.- Assist in setting up the EOC

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

15.- Brief the EOC after the Rapid Aerial Damage Assessment if it was necessary to participate on the aerial damage assessment.

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

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

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

19.- Ensure that food safety measures are taken in food distribution sites, shelters and ports of entry. Coordinate with the members of the EOC and PEOC as needed.

20.- Ensure that garbage collection and disposal is not interrupted and is increased in critical areas: shelters, roads, ports of entry, etc). Coordinate with the rest of the members of the EOC and the PEOC as needed.

21.- Ensure that waste disposal is adequate all over the island, particularly in shelters. Coordinate with the rest of the members of the EOC and the PEOC as needed.

22.- Ensure that vector control activities are done in areas where needed: mosquito and rodent control. Coordinate with the rest of the members of the EOC and the PEOC as needed.

23.- Establish epidemiological surveillance activities, particularly in shelters and other places with large concentration of population displaced. Coordinate with the rest of the members of the EOC and the PEOC as needed.

24.- Coordinate with the rest of the members of the EOC and the PEOC as needed, particularly with Police, Transportation Committee and Information Committee for the adequate handling of dead bodies.

25.- Coordinate with the Information Committee to ensure that adequate and veracious information regarding dead bodies is disseminated in order to avoid false rumours about epidemics.

26.- At all times consult with the Chief Environmental Health Officer MOH as needed.

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

28.- If PAHO or any other international organisations are contacted, and assistance is provided, ensure that the Foreign Ministry, the MOH and NEMO are always contacted and informed about PAHO assistance and entry into the country (environmental health experts, vector control equipment, rodenticides, pesticides, water testing kits, personal protection equipment, water, chlorine tablets, etc.)

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

30.- Return 12 hours later to the EOC and substitute for the designated Medical Officer in the EOC.

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

32.- After the EOC is deactivated, prepare a final report and participate, if needed, in the rehabilitation/reconstruction Task Force that would remain in NEMO Headquarters.

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

34.- Revise and update this procedure.

B.- The Chief Environmental Health Officer shall:

Permanent:

1.- Assist the CMO in his tasks regarding this procedure and the National Hurricane Plan.

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

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

4.- Ensure that training is provided to environmental health officers and that materials and equipment are in good working condition, particularly before the hurricane season.

Immediately before the Impact:

5.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting' and address any environmental health issues that may arise.

6.- Assist the CMO and the Health Sector in the preparation for environmental health matters before the cyclone impact.

After the Impact:

7.- After the 'all clear' is given and the EOC activated, maintain communication with the CMO and assist him/her in any environmental health issues.

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

9.- Request information or resources from the CMO in the EOC as needed for the better implementation of environmental health measures after the tropical cyclone impact.

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

Attachments (Not shown)

- 1.- Directory of environmental health inspectors/officers.
- 2.- Inventory of resources for environmental health activities in Saint Lucia.
- 3.- Guidelines for the adequate sanitary handling and disposal of dead bodies after disasters.

Emergency Procedure HP-600 Damage and Needs Assessment

Version

Version 1. June 29th, 2002.

Objectives

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

Responsible for the Procedure:

Main:

Chairperson of the Damage and Needs Assessment Disaster Committee.

Secondary:

Deputy Chairperson Damage and Needs Assessment Disaster Committee.

Steps of the Procedure.

A.- The Chairperson of the Committee shall:

Permanent:

1.- Revise and update this procedure and its attachments at least once a year before the hurricane season and always after a simulation exercise and a real event.

2.- Keep an updated directory of damage assessment teams' members.

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

Director of Meteorological Services Ministry of Agriculture Rep. Department of Statistics Rep Banana companies/WIBDECO Chamber of Commerce Ministry of Works Ministry of Health Ministry of Education Cable and Wireless WASCO LUCELEC. Construction and Engineering Associations, Architects and Quantity Surveyors.

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

Immediately before the Impact:

7- Twenty four hours before the impact (Alert 1), attend the 'pre-strike meeting' and discuss any damage assessment issues that may arise.

8.- After the pre-strike meeting, hold a meeting with the Committee members to inform of the 'pre strike meeting' and to ensure that, in the event the cyclone impacts the country, damage assessment information is prepared and goes to the EOC and that teams are ready to respond.

9.- Prepare all the information to be brought to the EOC if it is activated after the 'all clear' (maps, damage assessment evaluation forms, directories, etc.)

After the Impact:

- 10.- Once the 'all clear' is given and the EOC activated: Inform all the members of the Committee. Go to the EOC.
- 11.- Report to the EOC Chairperson.
- 12.- Assist in setting up the EOC

13.- Participate in the aerial damage assessment and gather information about damage to areas where environmental health measures could be needed.

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

15.- Dispatch damage assessment teams to assess damage in priority areas.

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

17.- Request and receive information from the Works/Rehabilitation Disaster Committee Chairperson about damage to roads and bridges.

18.- Request and receive information from the Ministry of Agriculture about damage to crops, fisheries and livestock.

19.- Request and receive information from the Health and Welfare Disaster Committee Chairperson about damage to the health sector (hospitals, clinics, equipment, medicines.)

20.- Request and receive information from SLASPLA about damage assessment to air and seaports.

21 Request and receive information from the Tourism Sector about damage to buildings and infrastructure.

22.- Request and receive from the rest of the EOC members and the District Committees information about damage assessment.

23.- Prepare a damage assessment report every 12 hours or earlier if needed for the EOC or the Prime Minister.

24.- Assist the Chairperson of the Supply Management Disaster Committee, the EOC Chairperson and NEMO in writing the needs list for Saint Lucia.

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

28.- Return 12 hours later to the EOC and substitute for the Deputy Chairperson.

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

30.- After the EOC is deactivated, prepare a final report and participate, if needed, in the rehabilitation/reconstruction Task Force that would remain in NEMO Headquarters.

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

32.- Revise and update this procedure.

B.- The Deputy Chairperson of the Committee shall:

Permanent:

1.- Assist the Chairperson in his tasks regarding this procedure and the National Hurricane Plan.

2.- Know the Hurricane Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding damage assessment.

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

Immediately before the Impact:

4.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting'.

5.- Assist the Chairperson in his/her preparations for the cyclone impact.

After the Impact:

6.- After the 'all clear' is given and the EOC activated, maintain communication with the Chairperson and assist him/her in any medical attention matters.

7.- After 12 hours of activation of the EOC substitute for the Chairperson in the EOC.

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

9.- Assist the Chairperson in the preparation of the final damage assessment report.

Attachments.

1.- Directory of damage assessment teams.

2.- Damage assessment evaluation forms.

Emergency Procedure HP-650 External Assistance

Version

Version 1. June 29th, 2002.

Objectives

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

Responsible for the Procedure:

Main:

Permanent Secretary. Ministry of External Affairs.

Secondary:

Deputy Permanent Secretary. Ministry of External Affairs.

Steps of the Procedure.

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

Permanent:

1.- Revise and update this procedure and its attachments at least once a year before the hurricane season and always after a simulation exercise and a real event.

2.- Keep an updated directory of External Ministries from other countries, and from sub-regional, regional and international organisations and agencies involved in disaster response and relief.

3.- Keep an updated directory of external embassies and regional, sub-regional and international organisations and companies that have external personnel working and living in Saint Lucia.

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

5.- Define with NEMO and the Disaster Committees' Chairpersons of Damage and Needs Assessment, Supply Management and Information the mechanisms for information to the international community and for the request and receipt of donations in the case of a disaster.

6.- Inform other countries', sub-regional, regional and international organisations about these mechanisms and about the channels to follow for information and the offer, request and receipt of international assistance in Saint Lucia.

7.- Ensure that all the EOC members know that the Ministry of External Affairs is the only official channel for the Government of Saint Lucia for the offer, request and receipt of information and donations during and after a disaster in the country.

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

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

Immediately before the Impact:

10- Twenty four hours before the impact (Alert 1), attend the 'pre-strike meeting' and discuss any international issues that may arise.

11.- After the pre-strike meeting, contact the External Embassies and regional, sub-regional and international organisations in the country to inform them about the situation and to remind them about the measures for the protection of their personnel and their property and the mechanisms for the offer, request and receipt of international assistance. They have to be informed as well that the Ministry of External Affairs is the Ministry that will deal with them regarding information about foreign citizens in the country before and after a hurricane.

12.- Ensure that the External Embassies and regional, sub-regional and international organisations in the country follow the NEMO recommendations to protect their personnel, facilities, offices, houses, equipment, vehicles and materials.

After the Impact:

13.- Once the 'all clear' is given and the EOC activated, determine, jointly with NEMO and with the rest of the EOC members, if the IEOC has to be activated.

14.- Go to the EOC and ensure that, if it is needed, the IEOC is activated and run by personnel from the Ministry of External Affairs.

15.- Report to the EOC Chairperson. Inform him/her about the activation of the IEOC.

16.- Assist in setting up the IEOC. Ensure that there is communication between the EOC and the IEOC.

17.- Assist the EOC Chairperson and members in any issue that involves external issues.

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

19.- Jointly with NEMO, the Chairpersons of the Committees of Damage and Needs Assessment and Supply Management and other EOC members as needed, write the needs list of Saint Lucia and agree on the mechanisms to follow for its request, and on the organisations to be contacted.

20.- Jointly with NEMO, the Chairperson of the Information Committee and other EOC members as needed, participate in the preparation of any official statement that would be broadcast overseas or sent officially to International, Regional or Sub-regional organisations and agencies.

21.- Be informed of any communication from or to other countries and from and to any international, regional and sub-regional organisation regarding the disaster situation and the request, and receipt of international assistance.

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

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

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

25.- Ensure, along with NEMO, the Supply Management Committee Chairperson, the Police and SLASPA, that no un-requested supplies are received and accepted into the country. Ensure that they are taken back by the country or organisation that intended to bring them into the country.

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

27.- Return 12 hours later to the EOC and substitute for the Deputy Chairperson.

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

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

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

31.- After the EOC is deactivated, prepare a final report and participate, if needed, in the rehabilitation/reconstruction Task Force that would remain in NEMO Headquarters.

32.- Participate, as needed, in the reconstruction process particularly in matters regarding foreign assistance. Always be informed of the results and impact of the assistance received and be informed about the

33.- Revise and update this procedure.

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

Permanent:

1.- Assist the Chairperson in his tasks regarding this procedure and the National Hurricane Plan.

2.- Know the Hurricane Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding foreign assistance.

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

Immediately before the Impact:

4.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting'.

5.- Assist the Chairperson in his/her preparations for the cyclone impact.

After the Impact:

6.- After the 'all clear' is given and the EOC activated, maintain communication with the Chairperson and assist him/her in any matters related to external affairs.

7.- After 12 hours of activation of the EOC substitute for the Chairperson in the EOC.

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

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

Attachments (Not shown.)

1.- Directory of Foreign Ministries from other countries, and from sub-regional, regional and international organisations and agencies involved in disaster response and relief.

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

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

Emergency Procedure HP-700 Supply Management

Version

Version 1. June 29th, 2002.

Objectives

To manage (receipt, storage, sort, transport and distribution) relief supplies (national and foreign) after a disaster.

Responsible for the Procedure:

Main:

Chairperson of the Supply Management Disaster Committee.

Secondary:

- Deputy Chairperson: Representative of CARITAS Antilles
- Committee Members:

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

EOC members

Steps of the Procedure.

A.- The Chairperson of the Committee shall:

Permanent:

1.- Meet regularly with all the members to:

Assign roles and responsibilities and identify activities regarding supplies and supply management.

Identify possible needs for the population after a disaster.

Identify sources of supplies and suppliers (national [governmental and private for food and water], regional [CDERA, ECDG] and international [PAHO, Red Cross, ADRA, etc.]

Establish and agree on communications and co-ordination mechanisms for supply management and donations in the case of a disaster.

2.- Co-ordinate with the Damage and Needs Assessment Committee to establish mechanisms for the determination of needs in the case of a disaster.

3.- Co-ordinate with NEMO and the Ministry of Foreign Affairs for the request, receipt, storage and distribution of supplies coming from other countries and from Regional and International Organisations.

4.- Establish and ensure a SUMA/RSTS Team is formed and trained in the country. Establish coordination Mechanisms with NEMO in accordance with PAHO and CDERA guidelines.

5.- Keep an updated directory of all the members of the committee, their roles and the kind of assistance they will provide in the case of a disaster (manpower, donations, water supply, food supply, etc.).

6.- Provide NEMO with a copy of the directory every year before the hurricane season.

7.- To conduct an annual audit of the District Committee resources and to provide a written report to the Director of NEMO by May 31st each year.

Immediately before the Impact:

8.- Twenty four hours before the impact (alert 1), attend the 'pre-strike meeting' and report on the amount, type, storage and availability of supplies in the country.

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

After the Impact:

10.- After the notification of the 'all clear' and the activation of the EOC, go to the EOC.

11.- Assist in setting up the EOC.

12.- Maintain contact with the Committee members and with the Private Sector EOC.

13.- Establish permanent communication with the Chairperson of the Damage Assessment Committee to determine the needs of the country based on the assessment of damage to identify specific needs in specific areas.

14.- Establish permanent communication with the Chairperson of the Shelter Management Committee to identify needs in shelters.

15.- Based on the damage assessment reports prepare the needs report identifying what supplies are needed, what supplies can be provided from internal sources and what can be provided by regional and international sources.

16.- In contact with the National Committees' members the District Committees and with the EOC members, manage the distribution of supplies where they are needed.

17.- If transportation is required for the management of supplies, request the assistance of the Transportation Committee Chairperson.

18.- Consult with the EOC Chairperson and with the rest of the EOC members about the needs list and prepare the final version to be distributed to NEMO Director, the Permanent Secretary of the Prime Minister's Office, the Prime Minister and the Ministry of Foreign Affairs

19.- Depending on the needs that are to be requested and received from regional and international sources, decide, after consultation with the EOC, if the SUMA team is to be activated or if a SUMA team would be needed from PAHO.

B.- The Chairperson of the Committee, The representative of CARITAS Antilles shall:

Permanent:

1.- Assist the Chairperson in all his/her tasks before during and after the impact of a tropical cyclone.

2.- Participate in the Committee meetings.

3.- Assist the Chairperson with the follow up of the members activities for the identification and implementation of mechanisms for the management of supplies during disasters.

Immediately before the Impact:

4.- Attend the 'Pre-strike meeting' and assist the Chairperson in any supply management issues that may arise.

5.- Assist the Chairperson in the communication and co-ordination with the rest of the Committee members in order to have everything ready in the case the tropical cyclone impacts the country and supply management.

After the Impact:

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

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

C.- Members of the Committee.

Permanent:

1.- Meet regularly within the Committee to:

- Assign of roles and responsibilities and identify activities regarding supplies and supply management.
- Identify possible needs for the population after a disaster

- Identify sources of supplies and suppliers (national [governmental and private for food and water], regional [CDERA, ECDG] and international [PAHO, Red Cross, CARITAS, ADRA, etc.)
- Establish and agree on communications and co-ordination mechanisms for supply management and donations in the case of a disaster.
- Offer the Committee and the Chairperson their own resources in the case of a disaster (manpower, food, water, etc.)

Immediately before the Impact:

2.- Twenty four hours before impact (Alert1), check stock of materials, equipment, and goods that would be supplied in the event of a disaster. Ensure that they are in a safe location. Brief the personnel that would have to respond in case of disaster supply management.

After the impact:

3.- After the 'all clear' is given, and the National and the Private Sector EOC are activated, go, if applicable, to the PEOC.

4.- Maintain communications with the PEOC and from it to the National EOC.

5.-Provide supplies wherever they are needed and as requested from the PEOC and the EOC.

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

C.- EOC Members.

After the Impact:

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

Attachments (Not shown.)

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

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

Emergency Procedure HP-750 Public Information

Version

Version 1. June 29th, 2002.

Objectives

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

Responsible for the Procedure:

Main:

The Director of Information Services. The Government Information Service.

Secondary:

The Principal Information Officer. The Government Information Service.

Steps of the Procedure.

A.- The Director of Information Services shall:

Permanent:

1.- Revise and update this procedure and its attachments at least once a year before the hurricane season and always after a simulation exercise and a real event.

2.- Design, produce, conduct and evaluate a national public awareness campaign to increase the population's awareness about tropical cyclones that can impact Saint Lucia and about the measures the population has to take to protect their lives and belongings.

3.- Establish and improve permanently, with NEMO and the Media, mechanisms for the dissemination of governmental information in the case of emergency and disasters.

Immediately before the Impact:

4.- Twenty four hours before the impact (Alert 1), attend the 'pre-strike meeting' and discuss any Information dissemination issues he/she thinks fit.

5.- Go to the EOC and manage the emergency broadcast system.

6.- After the pre-strike meeting, hold a meeting with the Media to inform them about the situation and to remind them about the mechanisms for the request, receipt and dissemination of information. Remind the Media that GIS, the NEMO and EOC are the only sources for official information during emergencies and disasters.

7.- Prepare any equipment, materials, format and information needed to take to the EOC if it is activated.

After the impact:

8.- Once the 'all clear' is given and the EOC activated, go to the EOC.

9.- Report to the EOC Chairperson.

10.- Assist in setting up the EOC.

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

12.- Immediately after the initial assessment team (NEMO, Damage Assessment and Works Committees) briefs the EOC, prepare an initial report to be sent to the Media including: hazard characteristics, damage assessment, initial response and results and recommendations for the population.

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

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

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

16.- Prepare the text of the Prime Minister's Address to the Nation when requested by the EOC.

17.- Inform the EOC about any special request of information from the Media.

18.- After 12 hours in the EOC leave the EOC and be substituted by the Deputy Chairperson of the Information Committee.

19.- Return 12 hours later to the EOC and substitute for the Deputy Chairperson.

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

21.- After the EOC is deactivated, prepare a final report to be disseminated. Send a copy to NEMO to be included in the Plan.

22.- Revise and update this procedure.

B.- The Principal Information Officer shall:

Permanent:

1.- Assist the Chairperson in his tasks regarding this procedure and the National Hurricane Plan.

2.- Know the Hurricane Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding Public Information.

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

Immediately before the Impact:

4.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting'.

5.- Assist the Chairperson in his/her preparations for the cyclone impact.

After the impact

6.- After the 'all clear' is given and the EOC activated, assist the Chairperson in any information matters.

7.- After 12 hours of activation of the EOC substitute for the Chairperson in the EOC.

- 8.- Be substituted every 12 hours by the Chairperson.
- 9.- Assist the Chairperson in the preparation of the final report.

Attachments (Not shown.)

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

Emergency Procedure HP-800 Protection and Rehabilitation of Infrastructure

Version

Version 1. June 29th, 2002.

Objectives

To assess and repair damage to terrestrial communications and public utilities after the impact of a tropical cyclone.

Responsible for the Procedure:

Main:

The Permanent Secretary of the Ministry of Works.

Secondary:

- Committee Members: Permanent Secretary Planning Town Clerk, Castries City Council Planning Officer Ministry of Health Director Community Services and Local Government Executive Director Saint Lucia Hotel & Tourism Association Private sector WASCO LUCELEC Cable and Wireless
- EOC members

Steps of the Procedure.

A.- The Permanent Secretary of the Ministry of Works shall:

Permanent:

1.- Maintain a list of necessary light and heavy equipment (from chainsaw to bulldozer).

2.- Maintain a list of all voluntary personnel for immediate post impact action.

3.- Identify potential communication and public utilities failures.

4.- Maintain close contact with WASCO, LUCELEC, Cable and Wireless and main private contractors to identify resources and establish coordination and response mechanisms.

5.- Assist in developing memoranda of understanding with private companies.

6.- Assist in the implementation of mitigation measures.

7.- Establish damage assessment teams for the evaluation of damage to roads and bridges.

8.- Co-ordinate with the Damage Assessment Disaster Committee for the preparation of information about damage assessment to roads and bridges.

Immediately before the Impact:

9.- Twenty four hours before the impact (Alert 1), prepare and check vehicles and heavy equipment that would be needed. Fill up gas tanks.

10.- After the pre-strike meeting, hold a meeting with the Ministry personnel (including damage assessment teams) that would be in the MOW-EOC and the personnel that would be in the Private Sector EOC. Brief them about the situation and ask them to be ready to respond once the 'all clear' and the order to activate the MOW-EOC and the PEOC is given.

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

After the Impact:

12.- Once the 'all clear' is given and the EOC activated: Inform all the members of the Committee Go to the EOC Activate the MOW-EOC Send personnel to the PEOC

13.- Once in the EOC, test the communications equipment from EOC to MOW-EOC and to PEOC.

14.- Assist in setting up the EOC.

15.- Participate in the initial aerial damage assessment and gather information about damage to roads and bridges and to public utilities.

16.- Brief the EOC after the initial aerial damage assessment.

17.- Establish co-ordination with the Chairperson of the Damage Assessment Disaster Committee for damage assessment.

18.- Establish co-ordination with the Chairperson of the Transportation Disaster Committee for the deployment of heavy equipment when needed.

19.- Establish co-ordination with the SLASPA representative in the EOC for the assessment and prompt rehabilitation of air and seaports.

20.- Inform the MOW-EOC about the initial assessment.

21.- Inform the PEOC about the initial assessment.

22.- Ensure the prompt reopening of main roads and airports.

23.- Ensure the prompt restoration of main public utilities.

24.- Assist District Committees in their emergency work.

25.- Gather information from the MOW EOC, the PEOC and the field teams and prepare reports at least every 12 hours and when needed in the EOC.

26.- At all times, provide information to the Damage Assessment Disaster Committee Chairperson.

27.- After the EOC is deactivated, prepare a final report and participate in the rehabilitation/reconstruction Task Force that would remain in NEMO Headquarters.

28.- Participate in the Reconstruction Committee until final reconstruction of overall damage.

29.- Ensure that mitigation measures are included in the rehabilitation/reconstruction process.

B.- The Members of the Committee shall:

Permanent:

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

Immediately before the Impact:

2.- Twenty four hours before the impact, check up on light and heavy equipment.

3.- Check communications equipment.

After the Impact:

4.- After the 'all clear' is given and if the EOC is activated, go to the MOW-EOC or to the PEOC according to the Ministry of Works Plan.

5.- Assist the Chairperson at the EOCs at all times by providing information about the status of terrestrial communications, ports and public utilities.

6.- Prepare a report once the EOC and MOW-EOC are deactivated and send it to the Chairperson of the Committee.

C.- The EOC Members shall:

After the Impact:

1.- After the 'all clear is given and the EOC activated:

Establish communication and coordination with the Chairperson.

Provide information to the chairperson as needed.

Request information from the Chairperson about air and seaports, roads and bridges as needed.

Attachments (Not shown).

- 1.- Inventory of light and heavy equipment
- 2.- List of damage assessment teams
- 3.- Directories

MOW EOC PEOC END OF PROCEDURE

Emergency Procedure HP-850 Environmental Protection and Rehabilitation

Version

Version 1. June 29th, 2002.

Objectives

To protect the environment before and during the impact of a tropical cyclone and to rehabilitate the environment damaged or altered by the tropical cyclone impact.

Responsible for the Procedure:

Main:

The Permanent Secretary, Ministry of Planning.

Secondary:

Deputy Chairperson (to be nominated by the PS Ministry of Planning) Rep- Ministry of Agriculture Rep- The National Trust Rep- The National Conservation Authority

Steps of the Procedure.

A.- The Permanent Secretary, Ministry of Planning shall:

Permanent:

1.- Revise and update this procedure and its attachments at least once a year before the hurricane season and always after a simulation exercise and a real event.

2.- Establish regular contact with NEMO and the National Committees to identify environmental impacts after disasters, possible solutions and resources needed for mitigation and restoration measures.

3.- Maintain regular contact with NEMO and with the Public Information Disaster Committee in order to determine and recommend environmental protection measures in the case of a threat and impact of a hurricane to be included in the public awareness campaigns and in emergency broadcast through the Media.

4.- Identify activities the population and the governmental and private agencies have to execute during and after the threat and impact of tropical cyclones in Saint Lucia to avoid adverse effects in the environment such as: water and underground water contamination, air pollution, soil contamination, destruction/alteration of habitats, effects on forestry, flora and fauna (endemic and endangered species), garbage generation and waste management in disasters, effects on beaches and in specific environmentally protected areas, historical/archaeological sites, etc.

Immediately before the Impact:

5.- Twenty four (24) hours before the impact of the tropical cyclone establish contact with NEMO and attend the 'pre strike meeting' and discuss any environmental protection matters that may be considered important for the protection of the environment. Request immediate action if specific environmental issues demand the immediate protection of the environment by governmental and/or private agencies.

6.- Alert all personnel and check on equipment and vehicles that would participate in the protection of the environment and waste management.

7.- Ensure that all rivers and riverbanks are cleared of garbage.

After the Impact:

8.- Once the 'all clear' is given and the National EOC activated, go to the EOC.

9.-Maintain contact with the Ministry of planning, the Ministry of Agriculture and environmental organisations to receive information about any environmental damage and actions needed.

10.- Ensure that garbage and debris are collected from roads, ports, shelters, and other key locations according to priorities set by the EOC and according to resources available.

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

12.- Revise and update this procedure after the event.

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

Permanent:

1.- Assist the PS, Ministry of Planning in his/her tasks regarding this procedure and the National Hurricane Plan.

2.- Know the Hurricane Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his/her activities regarding the protection and/or restoration of the environment before and/or after the impact of tropical cyclones.

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

Immediately before the Impact:

4.- Twenty four hours before the impact of a tropical cyclone attend the 'pre-strike meeting' and assist the main individual responsible for this procedure in his/her participation in the meeting in any environmental issues that may arise.

5.- Assist the Chairperson in his/her preparations for the cyclone impact.

After the Impact:

6.- After the 'all clear' is given and the National EOC activated, maintain communication with the PS of the Ministry of Planning and assist him/her in any environmental protection and restoration matters.

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

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

9.- Assist the PS of the Ministry of Planning in the preparation of the final report regarding the environmental impact and protection and remediation activities.

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

Emergency Procedure HP-900 Reconstruction

Version

Version 1. June 29th, 2002.

Objectives

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

Responsible for the Procedure:

Main:

The Prime Minister of Saint Lucia.

Secondary:

Deputy Prime Minister or Nominee.

Steps of the Procedure:

A.- The Prime Minister of Saint Lucia shall:

Immediately before the Impact:

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

After the Impact:

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

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

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

Ministry of Planning Ministry of Finance Ministry of External Affairs Ministry of Works Ministry of Agriculture Ministry of Housing NEMO

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

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

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

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

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

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

B.- The Deputy Prime Minister or Nominee shall:

After the Impact:

1.- Assist the Prime Minister in all his/her activities regarding reconstruction after a disaster in Saint Lucia.

2.- Assist the Prime Minister in the Co-ordination of the Reconstruction Committee until all its works and projects are finished and reconstruction considered finished.

Attachments (None.)

Emergency Procedure HP-950 District Disaster Committee General Procedure (Hurricane).

Version

Version 1 June 29th, 2002.

Objectives

To identify vulnerability and risks, respond and provide relief in case of a tropical cyclone threat and/or impact.

Responsible for the Procedure:

Main:

District Disaster Committee Chairperson.

Secondary:

Deputy Chairperson of the Committee.

Steps of the Procedure.

A.- The District Disaster Committee Chairperson shall:

Permanent:

1.- Meet with the Committee and revise and update this procedure and its attachments at least once a year before the hurricane season and always after a simulation exercise and a real event.

2.- Ensure that the District Disaster Committee has amongst its members:

Principals of schools All service clubs Churches Red Cross Development Committee Fishermen's cooperative Radio amateurs/citizen band Farmer groups Youth organisations' Mothers and fathers groups Minibus, taxi associations Markets/supermarkets/commerce Police representative Fire service representative Representative of the District Health Team (Chairperson or nominee) Private companies (vehicles, light and heavy equipment, materials, etc)

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

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

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

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

Immediately before the Impact:

6.- Thirty six (36) hours before impact, turn the radio on and contact NEMO immediately for instructions.

7.- Keep the radio on and delegate someone to answer at all times. Stay in permanent and uninterrupted contact with NEMO.

8.- Transmit information from NEMO to the committee members.

9.- Twenty four (24) hours before impact, check that your radio is on and contact NEMO immediately for instructions.

10.- Twenty four (24) hours before impact, keep the radio on and delegate someone to answer it at all times. Stay in permanent and uninterrupted contact with NEMO.

11.- Twenty four hours before the impact (Alert 1), call all the District Disaster Committee members to a District 'pre-strike meeting', inform them about the situation and ensure everybody is ready in case of an impact. Give instructions to everybody to get ready and to stand by and check resources and communications equipment, check stocks and materials. Check communications.

12.- Prepare any equipment, materials, format and information needed in the District EOC if it is activated.

13.-Twelve (12) hours before impact, check again that your radio is on and contact NEMO immediately for instructions.

14.- Keep the radio on and delegate someone to answer it at all times. Stay in permanent and uninterrupted contact with NEMO.

15.- Ensure that the EOC, its information and equipment is protected against the impact of a hurricane (winds, floods).

After the Impact:

16.- Once the 'all clear' is given and the National EOC activated, go to the District EOC.

17.- Contact NEMO and ask for instructions.

18.- Contact neighbouring District Committees.

19. Call the rest of the EOC members as agreed in the District 'pre-strike' meeting.

20- Make an initial assessment of the situation.

21- Inform NEMO about the situation and ask for instructions.

22- Solve any problems in the District due to the hurricane impact by asking the Committee members to take immediate action according to their responsibilities.

23- Keep permanent and uninterrupted contact with the National EOC and inform them about the situation, actions taken and results.

24- Activate shelters only when requested and agreed, according to the needs, by NEMO and the EOC. Call shelter managers to activate them immediately.

25- Manage the District resources to solve any situations due to the hurricane impact.

26- Request and offer assistance and resources to and from neighbouring District Committees as needed.

27- If the situation overwhelms all the resources of the District, its members and organisations, request assistance to the National EOC.

28- Every twelve hours after the DEOC activation, change personnel through shifts.

29.- Prepare reports of the situation every six hours and general final report after the NEOC and the DEOC are deactivated.

30.- Send all reports to the NEOC and NEMO. (Situation report every six hours and final report.)

31.- Revise and update this procedure after the event.

B.- The Deputy Chairperson of the Committee shall:

Permanent:

1.- Assist the Chairperson in his tasks regarding this procedure and the National Hurricane Plan.

2.- Know the Hurricane Plan, its procedures and his/her role in it and during an emergency or disaster, particularly his activities regarding the District Disaster Committee preparedness and response

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

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

Immediately before the Impact:

5.- Ensure that the radio is on and establish communication with NEMO at:
36 hours before impact
30 hours before impact

24 hours before impact18 hours before impact12 hours before impact6 hours before impact

6.- Twenty four hours before the impact of a tropical cyclone attend the District 'pre-strike meeting' and assist the Chairperson of the Committee.

7.- Assist the Chairperson in his/her preparations for the cyclone impact.

After the Impact:

8.- After the 'all clear' is given and the District EOC activated, maintain communication with the Chairperson and assist him/her in any attention matters.

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

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

Attachments.

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

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

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

4.- List of shelters

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

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