

MODEL NATIONAL EVACUATION POLICY



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PREFACE

Hazard risk is a threat to the viability of each of the Caribbean Disaster Emergency Management Agency (CDEMA) Participating States (PSs) and recent experiences with multi-hazard and multi-country impacts have served to underscore the economic and social vulnerability and fragility of the region as a whole.

This Model Evacuation Policy is designed for adaptation by countries at the national level. It was developed through consultations with stakeholders from thirteen CDEMA Participating States and with the CDEMA Coordinating Unit. The Policy was also informed by reviews of the CDEMA Model National Comprehensive Disaster Management Policy, the draft model Comprehensive Disaster Management Bill and Regulations (2012), and prevailing national legislation, strategies and plans. [Country specific information should be inserted in highlighted square brackets].

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GLOSSARY

The following terms should be interpreted as provided below:

Comprehensive Disaster Management (CDM) is the management of all hazards through all phases of the disaster management cycle - prevention and mitigation, preparedness, response, recovery and rehabilitation - by all peoples - public and private sectors, all segments of civil society and the general population - in hazard prone areas. CDM involves risk reduction and management, and integration of vulnerability assessment into the development planning process (CDEMA 2011).

Critical Facilities are the primary physical structures, technical facilities and systems which are socially, economically or operationally essential to the functioning of a society or community, both in routine circumstances and in the extreme circumstances of an emergency. They are elements of the infrastructure that support essential services in a society, including such things as transport systems, air and sea ports, electricity, water and communications systems, hospitals and health clinics, and centres for fire, police and public administration services (UNISDR, 2009).

Disaster is a sudden, calamitous event that causes serious disruption of the functioning of a community or a society causing widespread human, material, socioeconomic and/or environmental losses which exceed the ability of the affected community or society to cope using its own level of resources (UNISDR, 2009).

Disaster Risk Management (DRM) is the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster. Disaster risk management aims to avoid, lessen or transfer the adverse effects of



hazards through activities and measures for prevention, mitigation and preparedness (UNISDR, 2009).

Disaster Risk Reduction (DRR) is the concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events (UNISDR, 2009).

Evacuation is a risk management strategy which may be used to mitigate the effects of an emergency or disaster on a community. It involves the movement of people to a safer location, whether in response to a threat of a hazard, or to a disaster. It is usually considered to include the return of the affected community (Emergency Management Australia, 2005).

- **IMMEDIATE EVACUATION** is evacuation in response to a hazard impact (such as hazardous material incidents, plane crash and earthquake) that forces immediate action. The incident allows little or no warning and limited preparation time (Emergency Management Australia, 2005). Flood and tsunami may require immediate evacuation.
- **PRE-WARNED EVACUATION** is evacuation in response to an event (such as cyclone or storm surge) that provides adequate warning and does not unduly limit preparation time (Emergency Management Australia). Pre-warned evacuation may be possible for flood and tsunami disasters.
- **VOLUNTARY OR PRECAUTIONARY EVACUATION** is called when there is a possible threat to life and property. This targets persons most at risk (e.g. in locations vulnerable to storm surge or high winds, persons with special needs or on offshore or coastal islands), and persons are not obligated to evacuate. Typically no special transportation or traffic management arrangements are made to facilitate voluntary or precautionary evacuation.



- **MANDATORY EVACUATION** is called when severe threat to life and property is imminent. Authorities encourage persons to move, and ingress into the area being evacuated is limited. Evacuation transportation plans are put into effect. Emergency services (police, fire, emergency medical services (EMS) within the evacuation area will cease until the threat has passed. Officials may go door to door advising of the risk, *but will not force persons to evacuate*. They will explain the consequences of not evacuating and require them to sign an indemnity form, including for minors and other persons under their care. Persons under the influence of drugs or alcohol, or who are unable to make sound decisions due to mental illness or other special considerations may be forcibly removed. ***Alt: and may use force if required to evacuate persons out of the evacuation zone.***
- **PARTIAL EVACUATION** is when only a portion of the population within an area is asked to evacuate.
- **SHADOW EVACUATION** occurs when individuals leave an area without being told to do so.

Early Warning System is the set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss. This encompasses the range of factors necessary to achieve effective responses to warnings. A people-centred early warning system necessarily comprises four key elements: knowledge of the risks; monitoring, analysis and forecasting of the hazards; communication or dissemination of alerts and warnings; and local capabilities to respond to the warnings received (UNISDR, 2009).

Hazard is a dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. The hazards of concern to disaster risk reduction as



stated in footnote 3 of the Hyogo Framework are “... hazards of natural origin and related environmental and technological hazards and risks.” Such hazards arise from a variety of geological, meteorological, hydrological, oceanic, biological, and technological sources, sometimes acting in combination. In technical settings, hazards are described quantitatively by the likely frequency of occurrence of different intensities for different areas, as determined from historical data or scientific analysis (UNISDR, 2009).

Incident Command System (ICS) is a standardized, on-scene, all-hazards incident management approach that allows for the integration of facilities, equipment, personnel, procedures and communications operating within a common organizational structure; enables a coordinated response among various jurisdictions and functional agencies, both public and private; and establishes common processes for planning and managing resources. ICS is typically structured to facilitate activities in five major functional areas: Command, Operations, Planning, Logistics and Finance/Administration. All of the functional areas may or may not be used based on the incident needs (FEMA, 2012).

Mitigation is the lessening or limitation of the adverse impacts of hazards and related disasters. The adverse impacts of hazards often cannot be prevented fully, but their scale or severity can be substantially lessened by various strategies and actions. Mitigation measures encompass engineering techniques and hazard-resistant construction as well as improved environmental policies and public awareness (UNISDR, 2009).

National Disaster Organisation is the national organisational structure of agencies linked for the purpose of attending to the legal, institutional and operational aspects of disaster prevention and mitigation, preparedness and response and recovery and rehabilitation. The NDO is generally headed by the Prime Minister or Head of State in the respective country (Baastel-ESL in Chase, V., 2011).

National Disaster Management Office is the State agency with focal responsibility for disaster management in the country. It is generally headed by the countries Disaster Coordinator (CDEMA, 2011).

National Emergency Operations Centre is established in response to an emergency/disaster to provide centralized coordination and control of emergency/disaster response and relief operations on a 24 hour-per-day basis if necessary. The Chief Executive (Prime Minister, Governor, etc.) of the state will direct disaster operations through the NEOC. The NEOC has three functional areas: 1. Executive, 2. Operations and 3. Public Information and Education (Government of Saint Lucia, 2005).

Risk is the combination of the probability of an event and its negative consequences (UNISDR, 2009).

Risk Assessment is a methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend. Risk assessments (and associated risk mapping) include: a review of the technical characteristics of hazards such as their location, intensity, frequency and probability; the analysis of exposure and vulnerability including the physical social, health, economic and environmental dimensions; and the evaluation of the effectiveness of prevailing and alternative coping capacities in respect to likely risk scenarios. This series of activities is sometimes known as a risk analysis process (UNISDR, 2009).

Shelter-in-Place is a response action that comprises remaining in a location, usually indoors, while taking precautions to minimize exposure to the threat. Situations that might require Sheltering in Place to be implemented include (Chicago First,2005):

- Severe storms;
- A public disturbance, such as a demonstration that has escalated to a violent level;



- Explosives, whether intentional or accidental; and
- Chemical or biological contaminants released accidentally or intentionally into the air.

Special Facilities include facilities which house or serve populations that cannot care for themselves during emergency situations and/or require unique support services. Such facilities include:

- Schools and day care centers, where students require supervision to ensure their safety.
- Hospitals and nursing homes, where patients need specialized health care personnel and equipment to maintain their health.
- Correctional facilities, where offenders require security to keep them in custody.

Special Needs Populations may include individuals in need of additional response assistance, individuals with disabilities, individuals who live in institutionalised settings, elderly individuals, children, people from diverse cultures who have limited official language proficiency, and those who lack transportation.

Visitor Population comprises individuals visiting or staying in a place outside their usual place of residence. Visitor population includes business and leisure travelers present in the jurisdiction, whether for single day or overnight stays.

Vulnerability refers to the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard. There are many aspects of vulnerability arising from various physical, social, economic, and environmental factors. Examples may include poor design and construction of buildings, inadequate protection of assets, lack of public information and awareness, limited official recognition of risks and preparedness measures, and disregard for wise environmental management. Vulnerability varies significantly within a community and over time (UNISDR, 2009).

ACRONYMS

BB	BlackBerry
CAP	Common Alerting Protocol
CB radio	Citizen's Band radio
CCTV	Closed Circuit Television
CDEMA	Caribbean Disaster Emergency Management Agency (formerly Caribbean Disaster Emergency Response Agency, CDERA)
CDM	Comprehensive Disaster Management
DEOC	District Emergency Operations Centre
DDMC	District Disaster Management Committee
DM	Disaster Management
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EMS	Emergency Medical Services
IC	Incident Command; Incident Commander
ICS	Incident Command System
MOU	Memorandum of Understanding
NDC	National Disaster Coordinator
NDO	National Disaster Organisation
NDMO	National Disaster Management Office
NEMP	National Emergency Management Plan
NEOC	National Emergency Operations Centre
NGO	Non-Governmental Organisation
PEA	Public Education and Awareness
PS	Participating State
RDS	Radio Data System
SAR	Search and Rescue
SIP	Shelter in place
SLR	Sea Level Rise
SMS	Short message service
SOP	Standard Operating Procedure



1.0

PREAMBLE

The eighteen Caribbean Disaster Emergency Management Agency (CDEMA) Participating States are in the Caribbean region, and comprise a number of islands ranging in size from a few square kilometres to several thousand square kilometres, and a few coastal mainland states (Guyana, Suriname and Belize). Some Participating States themselves comprise more than one island, some of which may be unpopulated. The geography of Participating States also varies, from mountainous volcanic to low lying limestone landscapes. Most of the Participating States are independent, but a few are British Overseas Territories. Although at varying stages of development, Caribbean Disaster Emergency Management Agency (CDEMA) Participating States all have in common, concentrations of development and populations in low lying coastal areas.

[Country] is a Caribbean Disaster Emergency Management Agency (CDEMA) Participating State, located in the Caribbean, comprising **[describe geography of country and stage of development]**. The country is susceptible to a range of natural and technological hazards. There are concentrations of development and populations in low lying coastal areas of **[Country]**, and these are highly vulnerable to storm surge. This vulnerability will be compounded in the future by sea level rise and more intense cyclonic events projected as a result of climate change. Other natural hazards of concern in the region include hurricane, flood, volcanic eruption, earthquake, tsunami, landslide, bushfire and waterspout (tornado).

Evacuation is a risk management strategy that may be an appropriate response to a number of the hazards faced, to mitigate the effects of an emergency

or disaster on a community. It involves the movement of people to a safer location, whether in response to a threat of a hazard, or to a disaster. There are five stages in the evacuation process. These are:

- i. decision to evacuate
- ii. evacuation warning
- iii. withdrawal
- vi. shelter
- v. return

Return typically assumes that the area evacuated remains safely habitable or can be returned to a habitable state in the short term. There will be instances however, when affected persons may have to be temporarily accommodated in the medium term, or resettled permanently elsewhere.

Of the natural hazards common in the region, hurricane, flood, storm surge and volcanic eruption can be predicted, and pre-warned evacuation may be a feasible policy option during the alert phase of such events. For others, including manmade disasters such as fire, explosion and chemical spill, there is no alert phase and immediate evacuation during or after an event may be required. Depending on the origin of a tsunami, warning time available may also be very limited. A pandemic may necessitate an evacuation of healthy persons (a partial evacuation) in order to isolate affected persons in a community. Voluntary or precautionary evacuation may be appropriate in situations where there is a possible threat to life and property for example in locations vulnerable to storm surge or high winds, or for persons located on offshore islands, and persons most at risk are specifically targeted but are not obligated to evacuate. If a mandatory evacuation is called, it is because the authorities have determined that severe threat to life and property is imminent, and all persons within the area being evacuated are expected to respond.

The Comprehensive Disaster Management (CDM) approach adopted by Caribbean Disaster Emergency Management Agency (CDEMA) and its Participating States incorporates all stages of the disaster cycle and aims to



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minimize losses from hazard impacts through sustained involvement of all stakeholders, with an ultimate goal of sustainable development throughout the region, via the efforts of disaster partners and stakeholders. Evacuation policy needs to be set within the framework of existing comprehensive disaster management policy, legislation and institutions.

Although Caribbean Disaster Emergency Management Agency (CDEMA) Participating States have so far not developed evacuation policies. Some have developed community and national evacuation plans, typically for specific disasters such as hurricane, volcanic eruption and tsunami. Caribbean Disaster Emergency Management Agency (CDEMA) is presently revising its 2010 model disaster legislation (the Draft Model Comprehensive Disaster Management Bill, 2012) to provide for, among other things, evacuation planning and execution. Disaster Management Evacuation Regulations are also being drafted.

Although [Country] has already developed community and/or national evacuation plans for specific disasters (specify them), there is need to have an overarching policy statement that considers the range of possible hazards faced and the process by which a decision is taken as to when an evacuation is warranted, and how this should be executed, whether at a very localized level, or on a countrywide scale. Evacuation policy must acknowledge the institutional structures already established and the capacities of these, and clearly define evacuation roles and responsibilities of individuals and local, national, regional and extra regional agencies in this context.

This [model] policy outlines the requirements for successful development and implementation of evacuation plans for the range of hazards anticipated in [Country].

2.0

SCALE OF EVACUATION RESPONSE

Hazards for which evacuation may be considered are listed in Table below.

Hazards Requiring Evacuation. Advanced warning time and potential impact area both generally increase reading from top to bottom (adapted from Wolshon, B. et al, 2005)

Hazards Requiring Evacuation

Man made events	Natural Events
Fire	Earthquake
Terrorist attack (including chemical and biological attacks)	Pandemic
Bomb threat	Waterspout/tornado
Chemical release/spill	Tsunami
Dam failure	Bushfire
Air Craft Crash	Flood
Cruise Ship Accident	Hurricane
Volcanic Eruption	

2.1 Small scale evacuations

All evacuation exercises begin and end locally, and an evacuation response, no matter its scale, is modular. Events or incidents that can be managed on the scene by first responders without mobilisation of resources outside of the



community will be managed without activation of the community evacuation plan or of the National Emergency Operations Centre. The National Disaster Management Office may be informed of the incident after the response. These are likely to include evacuations in response to incidents such as building fires and localised community flooding, where persons are required to respond by evacuating the affected premises immediately, in accordance with site specific evacuation plans. The extent of the area and the number of persons directly affected are limited. Assistance may be required of Non-Governmental Organisations (such as the Red Cross and religious organisations) and State agencies responsible for temporary or permanent housing or relocation if persons have been made homeless by the event, and are in need of clothing and shelter.

2.2 Community and national scale evacuations

Threats or events that require evacuation of surrounding areas that may be affected, such as a chemical spill, fire in a chemical storage location, explosion, bomb scare, storm surge, flash flooding and landslide will be managed in the field by first responders, likely supported by volunteers, with the National Emergency Operations Centre partially activated (Level 1 activation) or fully activated (Level 2 activation), as the situation demands. It may be necessary to open shelters within the affected district(s) to temporarily house evacuees. There may be a need to at least partially implement community evacuation plans, including the instituting of evacuation route protocols, depending on the scale of the event. First responders will provide the on-scene incident command. If there is need to activate the National Emergency Operations Centre, the National Emergency Operations Centre will coordinate the emergency management, security, traffic and transportation activities.

Threats or disasters that may necessitate community scale evacuations include flooding, landslide triggered by flooding, tsunami, volcanic eruption

and hurricane. Depending on incident location and size, chemical spill, fire in a chemical storage location and explosion may also necessitate an evacuation on this scale. There may be a need to evacuate more than one community simultaneously. There will be incident commander(s) in the field, managing the evacuation(s) in accordance with hazard and community specific evacuation plans. The National Emergency Operations Centre will be partially or fully activated with decision making and overall coordination at that level.

3.0

POLICY CONTEXT

[Country] is vulnerable to a range of natural and manmade hazards. For a number of these, evacuation may be an appropriate mitigation and/or preparedness and response strategy. Evacuation is contemplated as part of the Comprehensive Disaster Management Policy (2011), legislation (2010) and Strategy (2007-2012) adopted by [Country]. Priority outcome 3 of the CDM strategy envisages that disaster risk management has been mainstreamed at national levels and incorporated into key sectors of national economies. Output 3.4 of the Comprehensive Disaster Management Strategy (CDERA, 2007) is that prevention, mitigation, preparedness, response, recovery and rehabilitation procedures are developed and implemented into key sectors. Priority Outcome 4 promotes the enhancement of community resilience in CDERA (now CDEMA) states/territories to mitigate and respond to the adverse effects of climate change and disasters. The Comprehensive Disaster Management Strategy identifies a number of indicators to measure progress in this regard, including the quality of evacuation policies and procedures completed. The model Comprehensive Disaster Management legislation (2010) imposes a requirement to include procedures for evacuation of residents that may be affected by disaster in national disaster management plans. It provides for consultation by the Director prior to an evacuation



recommendation, and procedures for issuance of an evacuation notice by the Minister.

A number of Participating States have developed Disaster Management Policies and Plans that speak to evacuation, identify responsibilities in relation to these, and identify priority programming areas and outcomes. A number of hazard specific plans of Participating States also include evacuation as part of the response. Standalone evacuation plans have been developed in some Caribbean Disaster Emergency Management Agency (CDEMA) Participating States, including Saint Lucia, British Virgin Islands and Belize.

4.0

CHALLENGES TO EVACUATION PLANNING

The Comprehensive Disaster Management Policy and Strategy are premised on the mainstreaming of disaster risk management strategies in all phases of the disaster management cycle. Successful disaster risk reduction would increase community resilience, reduce individual and community vulnerabilities, and potentially reduce the scale of an evacuation that could be required in response to a specific disaster. According to the Comprehensive Disaster Management Strategy (CDERA, 2007), Disaster Risk Reduction involves:

- Risk awareness and assessment including hazard analysis and vulnerability/capacity analysis;
- Knowledge development including education, training, research and information;
- Public commitment and institutional frameworks, including organizational, policy, legislation and community action;

- Application of measures including environmental management, land-use and urban planning, protection of critical facilities, application of science and technology, partnership and networking, and financial instruments;
- Early warning systems including forecasting, dissemination of warnings, preparedness measures and reaction capacities.

While [Country] has made significant inroads in these areas, much work remains to be done, all with implications for evacuation planning and execution.

4.1 Development planning

There is a need to strengthen land use planning, building codes and the enforcement of these, to reduce the incidence of inappropriate development. *In many countries, informal developments are located on marginal lands, increasing the vulnerability of already marginalised populations.* [Informal developments are located on marginal lands, increasing the vulnerability of already marginalised populations]. Despite the existing threat of climate variability and the acknowledged threat of climate change, new development still occurs on the coastline, with inadequate setbacks. Improved planning and stronger development control could potentially reduce the requirement for evacuation from vulnerable areas, as well as increase the numbers who could opt to shelter in place. A whole of government approach is therefore recommended for physical development planning.





4.2 Community planning, development and maintenance

Effective evacuation planning may be constrained by the way in which a community has developed and its infrastructure is maintained. This may limit:

- the availability and capacity of evacuation routes,
- availability of assembly/muster points, and
- availability of suitable shelters.

Furthermore, the vulnerability of critical facilities that accommodate critical services necessary in an evacuation response may be high in some communities.

4.3 Early warning systems

Successful evacuation requires that vulnerable populations are warned sufficiently early to respond appropriately. The inability to accurately forecast hazards potentially compromises evacuation decision making. Such uncertainty increases the risk of unnecessary evacuation or of not evacuating vulnerable populations. The early warning system is not sufficiently robust and effective to ensure that all vulnerable populations receive the warning on a timely basis.

Governments should put in place an adequate warning system.



4.4 Multi-hazard, vulnerability, risk, behavioral, transportation, security, evacuation route and shelter analyses

Evacuation planning requires the definition of areas most and least likely to be impacted by the various hazards. The former will identify the populations that may have to be evacuated, and the latter will inform selection of preferred locations for emergency shelters and other critical facilities. Multi hazard analyses, vulnerability and risk assessments are required to identify these areas and at risk populations. The data required to input into models that can predict the boundaries of these areas, as well as the models themselves, are currently lacking. The more conservative, rule-of-thumb approach presently in use to define evacuation zones could compromise the response, with the possible result that those most in need of evacuation are not evacuated on a timely basis.

Behavioral analyses that predict the response of an affected population have not been undertaken. These could yield more accurate estimates of numbers of persons that:

- are likely to evacuate,
- will self-evacuate,
- will require transportation assistance, and
- will opt to seek shelter in a public facility.

Transportation and appropriate evacuation route analyses have not been undertaken to assess the capacity of available transportation. [Country] [has/does not have] a database of critical facilities. The hazard vulnerabilities of critical facilities have not been assessed, so that their likely availability in any given disaster scenario cannot be properly predicted in advance of an event,



and hazard-specific evacuation and other response plans cannot be made accordingly. Shelter analyses are required to determine the number and capacity of safe shelters that are likely to be available for each of the possible hazards.

It must be acknowledged that evacuation options available to Small Island Developing States are limited by their very size and geography. An entire State can be severely affected by a large scale hazard, and all potential shelters will likely be adversely affected. Evacuation in such instances can only succeed in moving persons from highly vulnerable to less vulnerable (rather than safe) locations, assuming evacuation is primarily within the country.

4.5 Public education and awareness

Public education and awareness is a key factor in determining the preparedness of persons to evacuate when the notice is issued. Persons may not respond appropriately to a notice of evacuation if they are not knowledgeable of the risks of doing otherwise.

4.6 Drills

Frequency of evacuation drills and simulations needs to be increased. These can be costly undertakings, and resource availability is one of the limiting constraints. Drills also lack the appropriate participation of key agencies and personnel.



4.7 Institutional Framework

National Disaster Management Office institutional capacity is inadequate to provide the planning and mitigation support required. The National Disaster Management Office has [little/no/sufficient] Geographic Information System (GIS) capacity, or capacity to undertake vulnerability, risk and other assessments, to inform development of *inter alia*, evacuation plans.

[(Where they do not exist) There is no lead entity with specific responsibility for evacuation.]

5.0

POLICY PRINCIPLES

The evacuation policy is guided by the following underlying principles:

- Life is to be preserved and property protected through all stages of evacuation.
- Public welfare is to be provided for at all stages of an evacuation.
- Evacuation may not be the preferred mitigation or response strategy in some scenarios.
- Increased coordination, training, drills, public education and awareness will increase the success of evacuations.
- Evacuation may be undertaken more effectively with appropriate planning.
- Existing institutional and regulatory frameworks may be improved within resource constraints, to improve the evacuation response.



6.0

POLICY STATEMENT

6.1 Vision Statement

The vision of this policy is to achieve highly efficient and effective evacuation of persons, ensuring the preservation of life and protection of property.

6.2 Policy Goal

The goal of the policy is to ensure that the planning and conduct of evacuations in [Country] minimise loss of life and injury.

6.3 Policy Objectives

The objectives of this evacuation policy are to:

- 1 Reduce the risk of loss of life and injury from the impacts of a hazard, whether natural or manmade, by efficiently removing people from high risk areas to places of relative safety.
- 2 Strengthen the legislative, regulatory and institutional framework for evacuation planning and execution.
- 3 Anticipate the possible need for evacuation in land use planning and development design, and to incorporate design features and capacity accordingly, to facilitate more effective evacuations.
- 4 Clearly define roles and responsibilities in the process of evacuation in support of state and local authorities.

7.0

POLICY STRATEGY

The main pillar upon which this policy is built is that efficient evacuation is achieved through effective warning, planning and practice. The strategy to realise this is that individuals, institutions and communities are empowered through knowledge of the various hazards, vulnerabilities and risks, and understand their role in evacuation.

7.1 Priority Areas for Action

The following priority areas have been identified to implement the policy:

- Development, implementation and enforcement of appropriate legislation and regulations to support evacuation
- Integration of evacuation planning into national policy and sectoral frameworks including efficient and effective coordination and interoperability
- Determination and mapping of areas with high vulnerability to hazard impact
- Capacity building for evacuation at the community and national levels including appropriate warning systems
- Public education and outreach at all levels
- A whole of government approach is required for physical development planning.

A whole of government approach is required for physical development planning. Recommended strategic interventions in these areas are articulated below.



8.0

STRATEGIC INTERVENTIONS

8.1 Development, implementation and enforcement of appropriate legislation and regulations to support evacuation

- The National Disaster Management Office in collaboration with the Office of the Attorney General will ensure that national disaster legislation is **[enacted/amended]** to clearly identify authorities and procedures in relation to evacuation planning and execution.
- The National Disaster Management Office will ensure that a comprehensive **[National Emergency Management Plan]** inclusive of evacuation plans are **[developed/amended]** in accordance with national disaster legislation.
- The National Disaster Management Office will ensure that all relevant sectors, agencies, volunteers and communities collaborate in the development, practise and execution of evacuation plans for all phases of an evacuation response, for all scales of evacuation, in accordance with national disaster legislation.
- The law enforcement/security agencies will ensure that both evacuated and un-evacuated areas are secured, as long as this does not place security **[forces]** at risk.



8.2 Integration of evacuation planning into national policy and sectoral frameworks including efficient and effective coordination and interoperability

- All State entities will ensure that they incorporate evacuation planning, simulations and implementation requirements into their sectoral policies and that they have the capacity to fulfil these.
- State institutions such as hospitals, nursing homes, schools, special schools, orphanages and prisons as well as tourism interests with a responsibility for visitor welfare will ensure that they develop and maintain National Disaster Management Office-approved disaster management plans including evacuation plans (as required under the disaster management legislation) that utilise their own resources fully during an evacuation.
- Community evacuation plans will ensure that all persons including special needs persons living within the community are catered for in the evacuation response.
- The National Emergency Operations Centre will coordinate requisite State or other available support as identified in National Disaster Management Office-approved evacuation plans, to be provided to State institutions and tourism interests for the transportation and care of persons during an evacuation.
- The National Disaster Management Office will ensure that Memoranda of Understanding are entered into with private sector, volunteer and other organisations for the provision of goods, services, data and other support required for evacuation.



8.3 Determination and mapping of areas with high vulnerability to hazard impact

- The National Disaster Management Office in collaboration with [\[planning and data management agencies\]](#) will ensure that requisite data is collected and risk and other necessary assessments are undertaken to inform decisions as to whether evacuations are warranted, and to define areas and populations potentially affected.

8.4 Capacity building for evacuation at the community and national levels including appropriate warning systems

- The Ministry of Finance will ensure that adequate budgetary provision is made for the National Disaster Management Office and other relevant agencies to build evacuation capacity and acquire other requisite resources.
- Response agencies will ensure that first responders are properly equipped and trained in requisite areas, and are not required to take unnecessary risks in the execution of their duties.
- The National Disaster Organisation will ensure that the National Multi-Hazard Alert System is established and maintained, so that the public may be adequately informed through all phases of an evacuation response.



8.5 Public education and outreach at all levels

- The National Disaster Management Office will ensure that Public Education and Awareness requirements in relation to evacuation are identified and coordinated, and that responsibilities for delivery of Public Education and Awareness are defined in the [\[National Emergency Management Plan\]](#).

8.6 Engagement of government agencies

- The National Disaster Management Office will initiate, develop and continue quality engagement programs with key government officials to achieve mainstreaming of Disaster Risk Reduction with special emphasis on evacuations in this context.

9.0

POLICY REVIEW

The National Disaster Coordinator will review the policy every five years, as well as after an actual event if required, and make recommendations to the [\[Council\]](#) accordingly.



REFERENCES

Australian Emergency Management, 2011. *Common Alerting Protocol*. <http://www.em.gov.au/cap> Accessed October 24, 2011.

Caribbean Disaster Emergency Management Agency (CDEMA), 2010. *Overview, Disaster Risks Management Sub-Regional Programme under the ACP-EU Natural Disaster Facility*.

CDEMA, 2010. *Emergency Operations Centre Standard Operating Procedures Manual, Final*

CDERA, 2007. *Enhanced Comprehensive Disaster Management Strategy and Programming Framework 2007-2012*

CDEMA., 2011. *Comprehensive Disaster Management. Building Resilience for a Safer Caribbean. Model National Comprehensive Disaster Management Policy*.

Chicago First 2005. *Sheltering in Place, A Best Practice Guideline*. https://www.chicagofirst.org/resources/shelter_in_place.pdf Accessed November 26, 2012.

Disaster Management Evacuation Regulations (draft), 2012

Emergency Management Australia, 2005. *Evacuation planning. Australian Emergency Manual Series. Manual Number 11.*

FEMA, 2012. *FEMA Incident Command System*. <http://www.fema.gov/incident-command-system> Last updated 15 June 2012.

Government of Saint Lucia, 2005. *Standard Operating Procedures for the National Emergency Operations Centre. Volume 2. [Document of the Saint Lucia National Emergency Management Plan]*.

Model Comprehensive Disaster Management Bill and Regulations (draft), 2012

Wolshon, B., Hamilton, E. U., Levitan, M, Wilmot, C., 2005. Review of Policies and Practices for Hurricane Evacuation. I: Transportation Planning, Preparedness, and Response. *Natural Hazards Review*, 6(3), 129-142. United Nations International Strategy for Disaster Reduction (UNISDR), 2009. UNISDR Terminology on Disaster Risk Reduction.



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