

# DISASTER PEPAREDNESS PLANNING

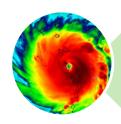
**DECEMBER 10, 2020** 

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### **OUTLINE**





### Basics of Disaster Management



Disaster Preparedness Planning

- i. Emergency Kit
- ii. Communications Plan / getting information
  - iii. Sheltering/Evacuation



Safety/Preparedness Tips for Natural Hazards

# Dominica is among the most vulnerable countries in the world to natural hazards!

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...WHY?

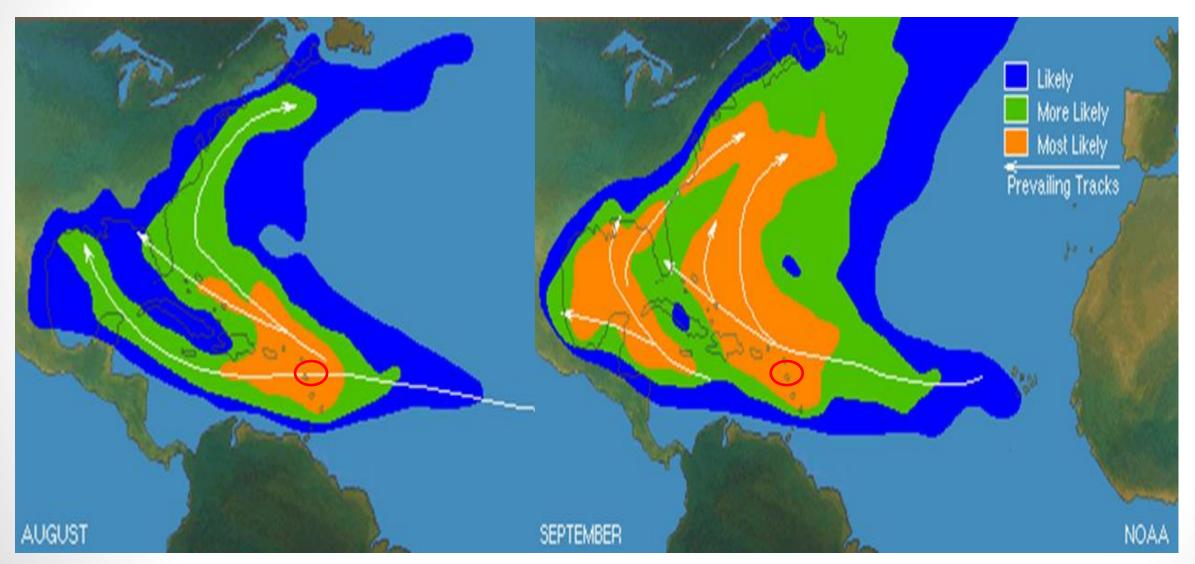
- Topography
- Geology
- Geographical location

The mountainous and steep topography of Dominica makes the island highly prone to landslides – especially during intense/heavy rainfall events

Dominica is located in the tectonically active island arc of the Lesser Antilles that has 11 volcanically active islands;



Located along the usual track of tropical cyclones that traverse the Atlantic Ocean especially during the peak months of August and September



### **Disaster Management Basics**



### HAZARD

- A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.
- Hazards may be natural or (human induced) in origin. Natural hazards are predominantly associated with natural processes and phenomena. Human-induced hazards result entirely or predominantly from human activities and choices.
- Hazards may be single, sequential or combined (multiple hazard) in their origin and effects.



### Natural hazards

 Tropical cyclones (depressions, tropical storms, hurricanes)

Volcanic Eruption

- Earthquake
- Tsunami
- Landslide
- Flood
- Drought
- Epidemic





### Manmade hazards

- Fire
- Toxic Chemical Spills
- Explosion
- Civil Strife
- Power Failure
- Invasion
- Shipwreck
- Pollution
- Air Crash
- Oil Spills





# Disaster Management Basics

### DISASTER

- A serious disruption of the functioning of a community or a society
- Involve widespread human, material, economic or environmental losses and impacts
- Exceeds the ability of the affected community or society to cope using its own resources



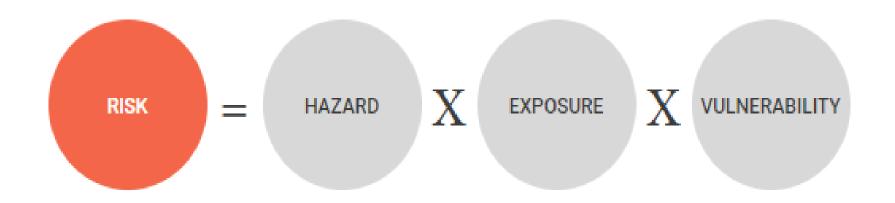
# Disaster Management Cycles





### **Disaster Risk**

Disaster risk is widely recognized as the consequence of the interaction between a hazard and the characteristics that make people and places vulnerable and exposed.





- **EXPOSURE** The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas. If a hazard occurs in an area of no exposure, then there is no risk (GFDRR, 2014a)
- The extent to which exposed people or economic assets are actually at risk is generally determined by how vulnerable they are (UNISDR, 2009), as it is possible to be exposed but not vulnerable (IPCC, 2012).
- **VULNERABILITY** human dimension of disasters and is the result of the range of economic, social, cultural, institutional, political and psychological factors that shape people's lives and the environment that they live in (Twigg, 2004).



### **ASSESSING YOUR RISK**

 A risk assessment is a process to identify potential hazards and analyze what could happen if a hazard occurs.

 Consider the impact on all areas: Family, business, community and even national - level of impact determines how quickly "normalcy" will be restored



### BASIC RISK ASSESSMENT GEF/SGP Workshop – Thinking It Through

Hazard Identification (What hazard is likely or has affected my community)	Assets at Risk (what will be affected home/business/common spaces)	Possible action to minimize risk or preparedness action
1.		
2.		
3.		
4.		
5.		
6.		



6.Landslide

#### BASIC RISK ASSESSMENT GEF/SGP Workshop – Thinking It Through

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Hazard Identification (What hazard is likely or has affected my community)	Assets at Risk (what will be affected home/business/common spaces)	Possible action to minimize risk or preparedness action
1. Tropical cyclone		Build to code; trim trees; clear
heavy rain Strong winds Storm surge	House, livelihood (crops, animals) family, roads, utilities etc.	drains; evacuate; assess property before purchase (hazard maps); emergency plan
2.Flood	Home, farm, roads; children school	Listen to weather information; Clear drains; sand bags; plan ahead; emergency kit
3.Earthquake	Home; business; utilities	Building code; emergency kit; identify safe spaces; practice DCH
4.Tsunami	Coastal areas – homes; business; Roads; utilities;	Evacuation plan; emergency kit; increase awareness – know the natural signs
5. Volcano	Hazard map - know what zone you live in	Evacuation plan; emergency kit; increase awareness

Land use management; be alert

during severe weather; learn the

signs of imminent landslides

Roads; home; farms;

### PREPAREDNESS PLANNING







# **Preparedness Planning**

Making advance arrangements to enable timely, effective and appropriate responses





### **PREPAREDNESS**

 The knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters.

 The related term "readiness" describes the ability to quickly and appropriately respond when required

# Preparedness as a Lifestyle ...

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 Your preparedness begins long before the hurricane season and should be considered a continuous activity

 The long term life choices that you make are part of your preparedness (The design of your home; where you purchase land or construct dwelling; property maintenance; financial planning)



## Preparedness and you



The goal of your preparedness planning is to:

Protect you and your family

Protect your livelihood where possible

 Knowing how to respond appropriately and including some means of supporting your recovery

### **DISASTER PLANS**



#### **WHAT**

(purpose of the plan, type of hazard, history,)

#### WHEN

(should you prepare, when is the impact likely etc)

#### **WHO**

(population, vulnerable, assets; should do what)

#### **HOW**

(how the hazard affect – flood wind, How to Prepare; resources, support etc)

#### **WHY**

(science, location, formation etc)



## Community/District Disaster Plan

- Disaster Committee
- 2. Create Community Disaster Plan
  - I. Identify hazards that affect the community
  - II. Identify critical facilities that could be affected (schools; health facilities etc.)
  - III. Identify vulnerable persons
  - IV. Evacuation route
  - Resources that will be required/available and owners (community and external) - transportation; chain saws; heavy equipment; shelter facilities; emergency communication support
  - VI. Assign dedicated roles (shelter management team, public awareness; SAR team; transport/evacuation etc.);
  - VII. Critical contact list (members of Disaster Committee/Village Council; ODM; resource persons, first responders etc.)

Plan is not in isolation but should be linked to the National Disaster Plan



### Planning for your Business

- STAFF Conduct planning and preparedness activities for the protection of your staff -Keep them informed of the emergency plan;
  - review it with them regularly
  - Identify shelter-in-place or evacuation options
  - Establish contact list for all employees (Part of business comm. Plan)
- **SURROUNDINGS** Assess those elements that potentially pose a threat during an event, such as fences, trees, tools etc.- remove or secure such items
- **SPACE** Evaluate the contents of your workspace, such as inventory, filing cabinets, shelving, and other furniture secure these items/important document/back up system.

Farms - Make a list of your farm inventory, include: Livestock, Crops (acres, type) Machinery and equipment, Hazardous substances (e.g., pesticides, fertilizers, fuels, medicines, other chemicals)



### Planning for your Business

- SYSTEMS includes utility systems that support the operation of the building electricity/water/communication etc. (Backup system)
- **STRUCTURE** assess structural elements of the building, especially construction types that may be vulnerable to damage or failure during an event.
- SERVICE consider what is needed for your organization to engage and serve the community following an event / or how you will receive service; how will the business move forward – Contacts for banks/ insurance arrangements

Farms – have contact information for suppliers; Extension Officers; financial institutions; store extra supplies to help restoration of livelihood where possible.



# Family Emergency Plan... Consider

- Family Emergency Kit ... do you have one or do you need to update your kit
- 2. Communication plan
  - How to stay informed / connected
- 3. Sheltering and evacuation plan (transportation)
  - Plans to protect your property (material and tools)



# 1. Emergency supplies check list \*

 Consider the needs of each family member

Consider age group

 Special needs/disabilities including special diet and medication









# Emergency supplies kit-72 HR

- Water (at least one gallon per person)
- Non-perishable food items
- Portable chargers
- Flash light or solar light
- Battery operated radio and extra batteries
- Cash







# Emergency supplies kit

- Personal hygiene items
- Prescription Medicine
- Important documents (birth and marriage certificates, land title, travel documents, insurance, business documents etc)
- A change of clothes
- COVID-19 protective supplies:

(masks, gloves, hand sanitizers or rubbing alcohol 70%)







# 2. Emergency Communication Plan



A family emergency communication plan ensures that household and other important contacts are available to your family, especially seniors and children and help to make sure you keep in contact with family and friends during an emergency or disaster.

Make sure each family member has a copy of this plan and that it is easily accessible for all to see.

### FAMILY COMMUNICATION PLAN (MAKE THE NUMBERS EASILY ACCESSIBLE)

Home:	Child:	
	Daycare:	
Adult:	Emergency pick-up:	
Cell:		
Work:	Neighbour:	
	Home:	38
Adult:	Cell:	
Cell:		
Work:		
	Home:	
Adult:		
Cell:		
	Off island relative/friend:	
	Home:	<del></del> 20
Child:	Cell:	
Cell:	<u></u> 3	
School:	Police:	
Emergency pick-up:	Fire & Ambulance:	
	Hospital:	
	Nearest health centre:	

#### MEETING PLACES (If family become separated during an emergency)

In your neighbourhood:			
***************************************	 		70
Out of your neighbourhood:			

(Adopted from: ready.gov)



# 3. Sheltering and Evacuation plan



- Decide if you can shelter in place
- Determine which is the safest room in your home based on the type of hazard

### *If evacuating your home:*

- Decide where you will shelter neighbour's home or public shelter
- Know where your nearest shelter is located



# **Sheltering and Evacuation plan**

 Have at least two routes (where possible) to leave your home or community

Keep Covid-19 shelter limitations in mind

Take your emergency supplies kit with you

 Consider any special needs of family members (elderly, wheel chair bound etc)



# Public Sheltering During COVID-19

- Everyone should wear masks in public shelter
- Frequent handwashing or use of hand sanitizers/rubbing alcohol (70%)
- Shelter managers are expected to enforce adherence to hygiene guidelines
- Shelterees are expected to avoid close contact with anyone showing symptoms of respiratory illness





# Public Sheltering During COVID-19

 Anyone who begin to show symptoms of COVID-19 will be separated from the main area and be placed in the designated isolation section; In some shelters where isolation is not possible temporary barriers will be used for separation

 For sleeping purposes - cots should be 6 feet apart. Cots will be arranged in alternating 'head-to-toe' arrangement to reduce transmission of any

communicable diseases.

 Persons will be separated in the shelters by household as much as possible...

### PREPAREDNESS TIPS



- 1. HURRICANE
  - 2. FLOOD
- 3. EARTHQUAKE
  - 4. TSUNAMI
  - 5. VOLCANO
  - 6. LANDSLIDE



# HURRICANE PREPAREDNESS TIPS...!



Clear drains around your home **HURRICANE HAZARDS** 

- FLOODING
- STRONG WIND
- STORM SURGE

Secure windows and doors with shutters or

ply board

**Ensure your roof is secure** 

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### **BEFORE A FLOOD**



Always monitor weather conditions

keep waterways free of debris; Keep areas around your home free from garbage and debris that may block drains.

Purchase water proof storage bags to protect important documents.

In case an evacuation is necessary, prepare a plan that takes disabled persons, the elderly, children and pets into account.

Store chemicals, important documents and electrical devices on elevated surfaces away from expected water levels.



Find out where the nearest evacuation shelter is located.

Store additional materials
like plastic sheeting, ply
board, nails, rope, wire and
sandbags to assist with the
effects of flooding, or to aid
with reinforcement of
objects that may get swept
away

Make sure your insurance plan covers flooding.

Practice proper land use to help prevent or reduce impact from landslides



### **DURING A FLOOD**



# Earthquake safety - What you can do now



- Pick "safe places" in the home and work place. A safe place could be under a sturdy table or desk or against an interior wall. The shorter the distance to move to safety, the less likely that you will be injured.
- Practice drop, cover and hold on in each safe place.
- Practice safe earthquake procedures (earthquake drill) at least twice a year. Frequent practice will help reinforce safe behavior.
- Make a plan for family and workers to follow in the event of an earthquake and ensure everyone is familiar with the plan
- Get basic training such as first aid, how to use fire extinguisher (Fire Service)etc.
- Have and emergency kit include whistle, masks (COVID-19 and dust), first aid kit etc.



## General Earthquake Safety - Before the shaking

- Potential earthquake hazards in the home and work place should be removed or corrected
- Top-heavy objects and furniture should be fastened to the wall and the largest and heaviest objects placed on lower shelves
- Water heaters and other appliances should be firmly bolted down
- Teach family members how to turn off electricity, gas and water by learning location of safety valves and main switches

## DROP COVER AND HOLD ON



















## **TSUNAMI**

- The word "tsunami" (pronounced soo-NAHmee) is derived from 2 Japanese words, "tsu" meaning harbour and "nami" meaning wave.
- A tsunami is usually a series of travelling ocean waves and the first wave is often not the largest. The next wave may be bigger, and the tsunami may last for hours.
- More than 80% of the world's tsunamis were caused by earthquakes.
- The travel time for a local tsunami is generally less than 1 hour, and may be as little as 10 minutes .... Not a lot of time



# Tsunami safety - FEEL, SEE, HEAR

- Be prepared to evacuate. Listen to your radio for instructions.
- If you FEEL a strong earthquake and you are close to a beach or near a river – DO NOT WAIT FOR OFFICIAL WARNING! – leave immediately
- Tsunamis sometimes 'draw up' water before they come inland. If you see the water suddenly retreat (after an earthquake) or hear a loud roar, it is probably a tsunami. Leave the area immediately;
- DO NOT go to a beach or river to watch the waves come in. If you see the tsunami it is probably be too late to get to safety.







# Tsunami safety

- Go at least 1 km inland or 35 metres (100ft) above sea level; 3<sup>rd</sup> floor or higher of buildings or even a tall tree
- Take your disaster survival kit and any important documents with you (If possible)

# NATURAL Tsunami Warning Signs









Any of these could mean a tsunami is coming. Get quickly to high ground or inland!





# Volcano safety

- KNOW THE HAZARDS Volcanic Gas, Ash Fall, Pyroclastic Flow (mixture of hot gas/ash/rock fragments), Earthquake; Tsunami
- KNOW WHAT ZONE YOU LIVE OR WORK IN
- HAVE AN EVACUATION PLAN THAT INCLUDES EXTENDED STAY
   AWAY FROM HOME OR OFF ISLAND ARRANGEMENT

# Landslide safety

#### LANDSLIDE HAZARD

Landslides such as rock falls and mudslides are more frequent during times of heavy rainfall.



Some areas that are generally prone to landslide hazards include:

- On or at the base of slopes or steep hills
- Under cliffs
- Existing old landslide areas
- At the base or top of a steep cut slope or hill.



#### **BE ALERT**

IF YOU LIVE OR
 WORK IN A
 LANDSLIDE PRONE
 AREA DURING
 HEAVY RAINFALL

#### WHEN DRIVING

LOOKOUT FOR
 FALLEN ROCKS OR
 COLLAPSED
 ROADWAYS

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## **Landslide Triggers**

- Heavy rainfall on steep slopes
- Saturated ground that was previously dry
- Strong shaking from earthquakes
- Human activity (excavation, construction)





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#### **DURING HEAVY RAIN EVENTS**

- STAY ALERT...STAY AWAKE ...Many people die from landslides when they are sleeping
- Listen for unusual sounds like trees cracking
- Boulders knocking together
- Evacuate early

### Safe Practices

- Plant ground cover on slopes
- Build retaining walls
- Build channels to direct water flow around buildings









# DO YOU KNOW WHERE YOUR EMERGENCY SHELTER IS LOCATED?

Contact the
OFFICE OF DISASTER MANAGEMENT
(ODM)
for your Emergency Shelter information

(767) 448 - 7777 / 611 - 4412

Website: www.odm.gov.dm

Email: odm@dominica.gov.dm

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