



THE NATIONAL DISASTER RESPONSE COORDINATION PLAN JAMAICA

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Deliverable I Consultancy RND/CJA

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APPROVAL SIGNATURE PAGE

The National Disaster Response Coordination Plan is approved by

On (Date)

Signature.....
Chair, NDRMC	Director General ODPEM

RECORD OF REVIEWS AND UPDATES

The Disaster Risk Management Act 2015 requires review of the National Disaster Response Coordination Plan every five years. However, the plan should also be updated if necessary after simulation exercises and real events. A record is to be kept of all updates made.

Date and Occasion	Reviewed By	Changes Made	Changes Approved By
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ACKNOWLEDGEMENTS

Work on Part One of the National Disaster Response Coordination Plan was started by the Office of Disaster Preparedness and Emergency Management in 2019. The plan was completed in 2021 under a consultancy contracted by the Inter-American Development Bank.

ACRONYMS

AAJ	Airports Authority of Jamaica
ADRA	Adventist Development and Relief Agency
BCA	Beach Control Authority
CAA	Civil Aviation Authority
CARICOM	Caribbean Community
CBDRM	Community Based Disaster Risk Management
CB	Citizens Band Radio
CBOs	Community Based Organisations
CCA	Climate Change Adaptation
CCRIF	Caribbean Catastrophic Risk Insurance Fund
CDEMA	Caribbean Disaster Emergency Management Agency
CDM	Comprehensive Disaster Management
CEOC	Community Emergency Operations Centre
CERTs	Community Emergency Response Teams
ICP	Incident Command Post
CVSS	Council of Voluntary Social Services
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EOC	Emergency Operations Centre
EU	Earthquake Unit
GOJ	Government of Jamaica
Ham Radio	Amateur Radio
HQ	Headquarters
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
ICT	Information and Communications Technology
JAMPRO	Jamaica Promotions Corporation
JCC	Jamaica Chamber of Commerce
JDF	Jamaica Defence Force
JDFCG/EU	Jamaica Defence Force Coastguard/Engineering Unit

JIS	Jamaica Information Service
JMA	Jamaica Manufacturers Association
JUTA	Jamaica Urban Transport Association
JUTC	Jamaica Urban Transit Company
KMA	Kingston Metropolitan Area
MAJ	Maritime Authority of Jamaica
MDA	Ministry, Department or Agency
Min	Ministry
MSME Assn.	Micro Small and Medium Enterprises Association
Municipal Corps	Municipal Corporations
Natl	National
NDRCP	National Disaster Response Coordination Plan
NDRMC	National Disaster Risk Management Council
NEOC	National Emergency Operations Centre
NEPA	National Environment and Planning Agency
NGOs	Non-governmental Organisations
NIC	National Irrigation Commission
NMS	National Meteorological Service
NRCA	Natural Resources Conservation Authority
NROCC	National Road Operating and Construction Company
NWA	National Works Agency
ODPEM	Office of Disaster Preparedness and Emergency Management
PCJ/PETROJAM	Petroleum Corporation of Jamaica
PDCs	Parish Disaster Committees
PEOC	Parish Emergency Operations Centre
PICA	Passport Immigration and Citizenship Agency
PSOJ	Private Sector Organisation of Jamaica
Pvt	Private
SAR	Search and Rescue
SOP	Standard Operating Procedure
SRFP	Sub Regional Focal Point
STAs	Scientific and Technical Agencies
TEV	Total Exposed Value
UNDP	United Nations Development Programme
UTECH	University of Technology
UWI	University of the West Indies
WRA	Water Resources Authority

GLOSSARY OF TERMS¹

Affected Population

People who are affected, either directly or indirectly, by a hazardous event. Directly affected are those who have suffered injury, illness or other health effects; who were evacuated, displaced, relocated or have suffered direct damage to their livelihoods, economic, physical, social, cultural and environmental assets. Indirectly affected are people who have suffered consequences, other than or in addition to direct effects, over time, due to disruption or changes in economy, critical infrastructure, basic services, commerce or work, or social, health and psychological consequences.

Capacity

The combination of all the strengths, attributes and resources available within an organization, community or society to manage and reduce disaster risks and strengthen resilience

Disaster

A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.

Disaster Risk Management

Disaster risk management is the application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses.

Disaster Management

The organization, planning and application of measures preparing for, responding to and recovering from disasters.

Early Warning System

An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events.

Emergency

Emergency is sometimes used interchangeably with the term disaster, as, for example, in the context of biological and technological hazards or health emergencies, which, however, can also relate to hazardous events that do not result in the serious disruption of the functioning of a community or society.

¹ Source: UNDRR Terminology available at <https://www.undrr.org/terminology#R>

Exposure

The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas.

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

Mitigation

The lessening or minimizing of the adverse impacts of a hazardous event.

Preparedness

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

Response

Actions taken directly before, during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Recovery

The restoring or improving of livelihoods and health, as well as economic, physical, social, cultural and environmental assets, systems and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and “build back better”, to avoid or reduce future disaster risk.

Vulnerability

The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards.

EXECUTIVE SUMMARY

The National Disaster Response Coordination Plan (NDRCP) outlines the *coordination mechanism and functions* to be undertaken to ensure a coherent response to threats and events from hazards impacting Jamaica. It does not replace the National Disaster Plan or plans and standard operating procedures required for managing responses to particular threats.

The objectives of the NDRCP are to:

- a) Describe roles and responsibilities of actors involved in the response to emergencies and disasters
- b) Provide guidelines for implementing the national response to emergencies and disasters
- c) Coordinate adequate disaster response capabilities across all sectors – public, private, voluntary and community
- d) Coordinate and manage information flow to national, regional and international interests
- e) Ensure coordination of response among all actors
- f) Coordinate resource management to ensure a timely and effective response

The NDRCP identifies coordinating activities to be taken in the preparedness and response phases by the public, private and voluntary sectors as well as community-based response teams. Coordinating activities, called Emergency Support Functions (ESFs) are led by ministries, departments and agencies of the government, with assistance from their private and voluntary sector partners and community teams.

The Disaster Risk Management (DRM) Act stipulates that the plan must be updated every five years by ODPEM. However, DRM good practice dictates updating plans after simulation exercises and real events.

The NDRCP is approved by the National Disaster Risk Management Council through the Chairman, the Honourable Prime Minister.

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PART ONE

1. INTRODUCTION

Jamaica, as a signatory to the Sendai Framework on Disaster Risk Reduction supports the goal of “substantial reduction of disaster risk and losses in lives, livelihoods and health, and in the economic, physical, social, cultural, and environmental assets of persons, businesses, communities, and countries.” (Sendai Declaration, 2015). More specifically, Jamaica’s national readiness and response programme is anchored on priority number four (4) of the Sendai Framework, which states inter alia: “Enhancing disaster preparedness for effective response”. This implies an integrated relationship between the preparedness and response processes.

The National Disaster Response Coordination Plan (NDRCP) outlines the *coordination mechanism and functions* to be undertaken to ensure a coherent response. It does not replace the National Disaster Plan or plans and standard operating procedures required for managing responses to particular threats.

2. AUTHORITY

The Disaster Risk Management Act 2015 gives ODPEM broad authority for the development of plans, policies and programmes for Disaster Risk Management (DRM). Further, Section 17 (1) of the National Disaster Risk Management Act 2015 stipulates that:

“The Director General shall prepare or cause to be prepared at regular intervals not exceeding five years, a draft National Disaster Response Coordination Plan, comprising the statement of the arrangements for a coordinated national response to the threat, event and aftermath of a disaster in Jamaica, whether or not the threat, event or aftermath is such as to require the declaration of a disaster.”

The Act also gives ODPEM the responsibility of coordinating implementation of the NDRCP and ensuring that entities named in the legislation also prepare disaster response plans. Entities named in the legislation are:

- a) Public bodies and public officers
- b) Non-governmental Organisations (NGOs)
- c) Community-based Organisations (CBOs)
- d) Persons or organisations who volunteer in disaster response
- e) Persons and organisations who by law perform functions for preparedness and response

The Act stipulates that the plans shall outline how each entity will contribute to the national disaster management effort in all the phases of disaster risk management that is: disaster prevention, preparedness, response and recovery.

The NDRCP is approved by the chair of the National Disaster Risk Management Council and given legal standing with the affixing of the signatures of the authorizing party. It serves as

the guiding document for Jamaica’s coordination of response to the threat and impact of hazards.

3. PLAN ACTIVATION

The NDRCP will be activated when the National Emergency Operations Centre (NEOC) is activated and will be deactivated when the NEOC is deactivated.

4. ELEMENTS OF THE PLAN

Part 1 - Basic Plan

The Basic Plan sets out mechanisms which will activate the Plan and the levels of operations which address the type and magnitude of the emergency. It also describes the plan’s scope, purpose, objectives, assumptions, authority and institutional framework. The Concept of Operations detailing how the response is organised and how it will unfold as well as the procedures for de-activating the plan are also treated.

Part 2 - Standard Operating Procedures (SOPs)

SOPs state the activities to be undertaken by all the actors which have coordination responsibilities under the plan.

Part 3 - Annexes

These annexes contain supporting plans such as functional and hazard specific plans, National Emergency Operations Centre (NEOC) Standard Operating Procedures (SOPs), response plans of lead agencies.

Part 4 – Authorities and References

This section includes reference documents such as the DRM Act, Memoranda of Understanding, lists of contacts, lists of experts, inventory of relief items and lists of resources and additional useful information.

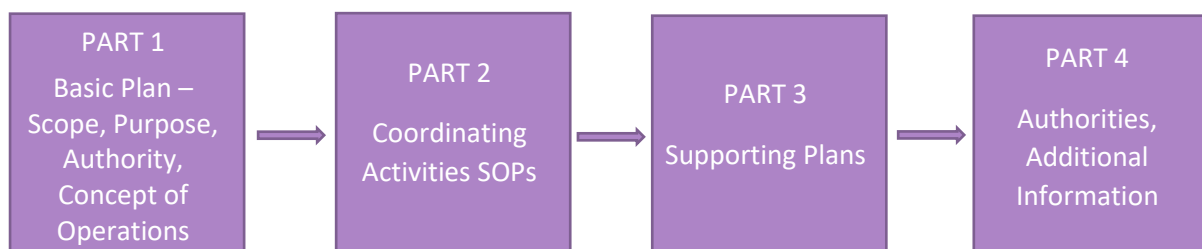


Figure 1. Elements of the National Disaster Response Coordination Plan

5. PURPOSE

This plan documents the activities for coordinating a response to the impact of a hazard on Jamaica. In keeping with the all-hazards approach of the regional Comprehensive Disaster Management (CDM) Strategy and Framework 2014 – 2024, the plan should be applicable to the impact of any hazard.

The NDRCP aims to:

- a) Ensure an integrated, coordinated, multi-level preparedness and response effort which includes participation of public, private and voluntary sectors as well as community-based organisations (CBOs). These entities will execute the plan.
- b) Describe the systems and procedures for coordinating efforts to save lives, provide humanitarian assistance and manage resources during emergencies and disasters.

NB. This plan does not discuss specific operational procedures. Such procedures are documented in hazard, functional and MDA plans and SOPs which support this plan.

6. OBJECTIVES

The objectives of the NDRCP are to:

- g) Describe roles and responsibilities of actors involved in the response to emergencies and disasters
- h) Provide guidelines for implementing the national response to emergencies and disasters
- i) Coordinate adequate disaster response capabilities across all sectors – public, private, voluntary and community
- j) Coordinate and manage information flow to national, regional and international interests
- k) Ensure coordination of response among all actors
- l) Coordinate resource management to ensure a timely and effective response

7. BACKGROUND

7.1. Hazard and Risk Analysis

This section summarises the three major hazards which threaten Jamaica. Additional information can be found in Annex 3.

Hurricanes

No major hurricanes have made landfall on Jamaica since Gilbert in 1988. However, the island has been affected by several systems which have transited close to the island. Table 1 shows the impact of several storms between 2001 and 2010.

Table 1. Impact of selected weather events on Jamaica’s GDP (Source PIOJ in Carby 2015)²

EVENT	YEAR	CATEGORY	IMPACT AS % GDP
Hurricane Michelle	2001	4	0.8
Hurricane Charley	2004	4	0.02
Hurricane Ivan	2004	4	8.0
Hurricane Wilma	2005	5	0.7
Hurricane Dean	2007	4	3.4
Tropical Storm Gustav	2008		2.0
Tropical Storm Nicole	2010		1.9

In 2020 the country was affected by heavy rains from Tropical Storms Eta and Zeta. There was loss of two lives from landslides. The Agriculture and Infrastructure sectors were most severely affected with damage and losses estimated at \$J6.7billion. In addition, it was estimated that \$J762.1 million would be needed for road improvement and rehabilitation.

The probable economic losses from hurricane winds, earthquakes and floods have been modelled by the IDB (2020)³ and results are presented below. The IDB analysis shows that for the building stock and infrastructure in Jamaica at country level:

a) The total exposed value (TEV) for building constructions and infrastructure for Jamaica is estimated in US\$ 45 billion. From this figure, approximately 75% corresponds to building construction and the rest, 25%, to infrastructure.

b) The expected annual loss, (EAL), for hurricane wind is about US\$ 127 million (2.8‰ of the TEV and 0.87% of the GDP) and for earthquake ground vibrations is US\$ 37 million (0.8‰ of the TEV and 0.25% of the GDP).

c) The probable maximum loss for 1000-year return period, PML1000, for hurricane wind is about US\$ 11,800 million (26.5% of the TEV) and for earthquake ground vibrations is US\$ 3,638 million (8.2% of the TEV).

Expected Losses Hurricanes

Table 2. Hurricane Wind – Expected Annual Loss and Probable Maximum Loss (Source IDB 2020)

Total Exposed Value (TEV)	US\$ Millions	44,576
Total Exposed Value (TEV)	US\$ Millions	127
	% of Total Value	2.84
Probable Maximum Loss (PML)		

² Carby, B. 2015 Beyond the Community: Integrating Local and Scientific Knowledge in the Formal Development Process in Jamaica available at [Beyond the community integrating local and scientific knowledge in the formal development approval process in Jamaica.pdf](#)

³ Inter-American Development Bank 2020 Disaster Risk Profile for Jamaica Update 2020 available at <https://publications.iadb.org/publications/english/document/Disaster-Risk-Profile-for-Jamaica-Update-2020.pdf>

Return Period	US\$ Millions	%
100	\$ 3,005	6.7
250	\$ 5991	13.4
500	\$ 9194	20.6
1,000	\$ 11,800	26.5

Earthquakes

The largest recorded earthquake which has affected Jamaica was the 1692 event which destroyed Port Royal and damaged sections of Kingston. Estimated at 7.5 on the Moment Magnitude scale, the earthquake caused some 2000 deaths directly with a further 3,000 succumbing from injuries and other effects (Carby et al 2012). The secondary effect of liquefaction caused much of the damage in Port Royal as a section of the peninsula slid into the sea. In 1907 Kingston was severely damaged by an earthquake estimated at 6.5 on the Moment Magnitude scale. This event was followed by a fire which caused further damage. Casualties are estimated at about 1,000 deaths and economic impact at 1.5 to 2.5 million pounds. (Ahmad 2001a *in* Carby et al 2012)⁴. Both earthquakes triggered secondary hazards of liquefaction, fire, landslides and tsunamis. Notably sections of Port Royal were again lost to liquefaction. Other events which caused minor damage occurred in 1951 affecting Montego Bay and 1996 affecting Kingston.

Seismic Risk

Table 3. Seismic Risk - Expected Annual Loss and Probable Maximum Loss Buildings and Infrastructure (Source: IDB 2020)

Total Exposed Value (TEV)	US\$(Millions)	\$44,576
Expected Annual Loss	US\$ (Millions)	\$37
	% of TEV	0.83
Probable Maximum Loss (PML)		
Return Period	US\$ (Millions)	% TEV
100	\$ 1054	2.4
250	2033	4.6
500	2838	6.4
1000	3638	8.2

Floods

Flood events affect coastal areas – storm surge, high wave action, tsunamis- as well as inland areas- flash floods, riverine floods, ponding. Storm surge and high wave action usually accompany hurricanes and have cost lives as well as property damage. During Hurricane Ivan 2004, six persons in Portland Cottage lost their lives from the effects of storm surge,

⁴ Carby et al 2012 Jamaica Country Document on Disaster Risk Reduction available at <https://eird.org/pr14/cd/documentos/espanol/CaribeHerramientasydocumentos/Informesnacionales/JamaicaCountryDocumentonDisasterRiskReduction.pdf>

despite evacuation advisories being given. Major inland floods include the 1979 event in western Jamaica after which the town of Newmarket was relocated to a new town, Lewisville, built above flood levels. Unfortunately, Newmarket is once again occupied with the risk for future flood events to cost lives and property damage. In 1986 heavy rains caused extensive flooding in central and southern Jamaica resulting in forty-six deaths and some J\$ 415m in direct damage (Carby et al 2012). Flood risk exposure for hurricane-induced flooding in the Kingston Metropolitan Area (KMA) (IDB 2020) is summarised below:

- a) The total exposed value (TEV) for building constructions for the KMA is estimated at about US\$ 9.701 million.
- b) The expected annual loss, EAL, for hurricane induced floods is about US\$ 9 million (0.89 ‰ of the TEV).
- c) The probable maximum loss for 250-year return period, PML250, for hurricane induced flood is about US\$ 49 million (0.51% of the TEV).

Expected Losses from Hurricane induced Flooding

Table 4. Hurricane Induced Flooding: Total Exposed Value and Expected Annual Loss Kingston Metropolitan Areas (Source IDB 2020)

Total Exposed Value (TEV)	US\$ (Millions)	\$9701
Expected Annual Loss	US\$ Millions	\$9
	% TEV	0.89
Return Period	US\$ (Millions)	% TEV
10	\$23	0.24
25	\$31	0.32
100	\$41	0.43
250	\$49	0.51

8. ASSUMPTIONS

Assumptions underlying this plan are:

- a) Plans exist at all levels to support this plan
- b) Resources available to implement the plan are adequate and accessible
- c) Actors in the plan have the capacity and resources to fulfil their roles
- d) Actors in the plan are or will become familiar with their roles
- e) Entities involved in the response effort including regional and international organisations will support plan implementation
- f) The plan will be exercised and updated periodically by ODPEM
- g) A mechanism exists for review and updating of this plan as well as all supporting plans

9. SCOPE

Section 17 (2) of the National Disaster Risk Management Act (2015) states that the Draft National Disaster Response Coordination Plan shall include procedures for:

- i. *disaster preparedness and disaster responsiveness of:*
 - a. *Public bodies and public officers*
 - b. *Non-governmental organizations, community-based organizations, and people and organizations who volunteer in disaster response efforts and*
 - c. *Persons or organizations who are required by law to perform functions related to the preparations for and response to disasters.”*

The National Disaster Response Coordination Plan provides a framework for coordinating emergency preparedness and response activities for Jamaica. The plan must be reviewed and updated by ODPEM every five years (minimum) as stipulated in the DRM Act of 2015.

The plan sets out preparedness activities which are to be undertaken in order to prepare for a response. Undertaking some of these activities between August and September so that costing for required resources can be included in the budget call is an option for consideration. Longer term activities for preparedness, risk reduction and recovery are laid out in the National Disaster Risk Management Plan.

10. RELATIONSHIP OF PLANS

The NDRCP is part of a hierarchy of plans which fall under the comprehensive National Disaster Risk Management Plan. The conceptual relationship of the plans is presented in Figure 2.

The NDRCP is supported by the volumes of the national disaster plan comprising functional⁵ and hazard plans, plans of ministries, departments and agencies, sectoral plans including those of private sector entities, parish and community plans. Family disaster plans complete the list. Although the latter do not directly feed into the national plan, they are important to national preparedness and response capacity.

ODPEM is responsible for leading the development and updating of national level plans. This will be done in collaboration with MDAs and other stakeholders. MDAs are responsible for development and updating of their organisational plans with technical guidance from ODPEM. Ministries will lead the development of sectoral plans, i.e. the ministry with portfolio responsibility will be responsible for leading the development of the particular sectoral plan. Development of parish plans is the responsibility of the Municipal Corporations which will also oversee the development of community plans. ODPEM is responsible for quality assurance of all plans. It is unlikely that ODPEM will be able to review every plan. It is suggested that it develops templates and self-check guidance which can be

⁵ E.g. Transportation, debris management, other plans for carrying out ESFs

used to guide writing of the various plans, thus ensuring a standardised approach to plan development.

Hierarchy of Plans - The suggested relationship between the levels of plans is shown in the figure below:

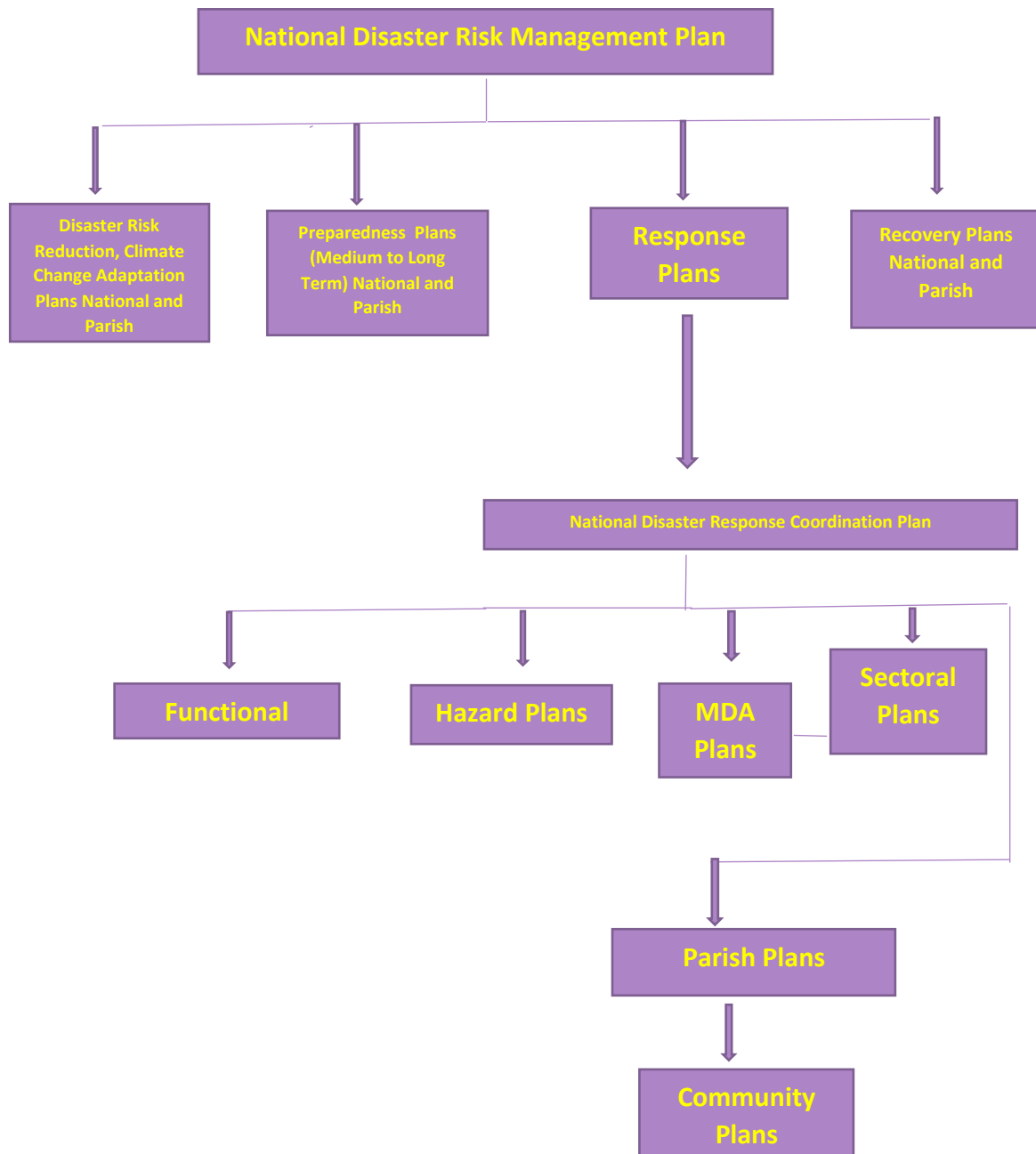


Figure 2. Hierarchy of Plans

11. NATIONAL INSTITUTIONAL FRAMEWORK FOR DISASTER RISK MANAGEMENT

11.1. National Disaster Risk Management Council

The institutional framework for DRM is set out in the document *National Committees of the National Disaster Risk Management Council (NDRMC)* dated June 2017. The Council is chaired by the Prime Minister with Deputy Chair being the Minister of ODPEM's parent ministry. ODPEM acts as secretariat to the Council and National DRM Coordinator. The committees of Council are:

- a) Finance and Planning (FP) chaired by the Ministry of Finance
- b) Recovery Planning (RP) chaired by Planning Institute of Jamaica
- c) Preparedness and Emergency Operations (P&EO) chaired by the Jamaica Fire Brigade
- d) Emergency Health and Planning (EHP) chaired by the Ministry of Health
- e) Public Information and Education (PIE) chaired by the Jamaica Information Service
- f) Humanitarian (Hum) chaired by Ministry of Labour and Social Security
- g) Prevention and Mitigation (P&M) chaired by ODPEM

The committees are intended to carry out a mix of responsibilities including planning, ensuring availability of resources and development of systems in support of DRM. Their functions relate to administration rather than operations, although their membership carries out operations. The Committees also oversee the Emergency Support Groups (Fig.3) During response the role of the Committees shall be to support the NDRMC Executive and NEOC in decision-making, to review policy changes or adjustments which may be required by the response and to provide specialist advice. Committee chairs will receive Situation Reports from the NEOC Director on the same schedule as the NDRMC Executive.

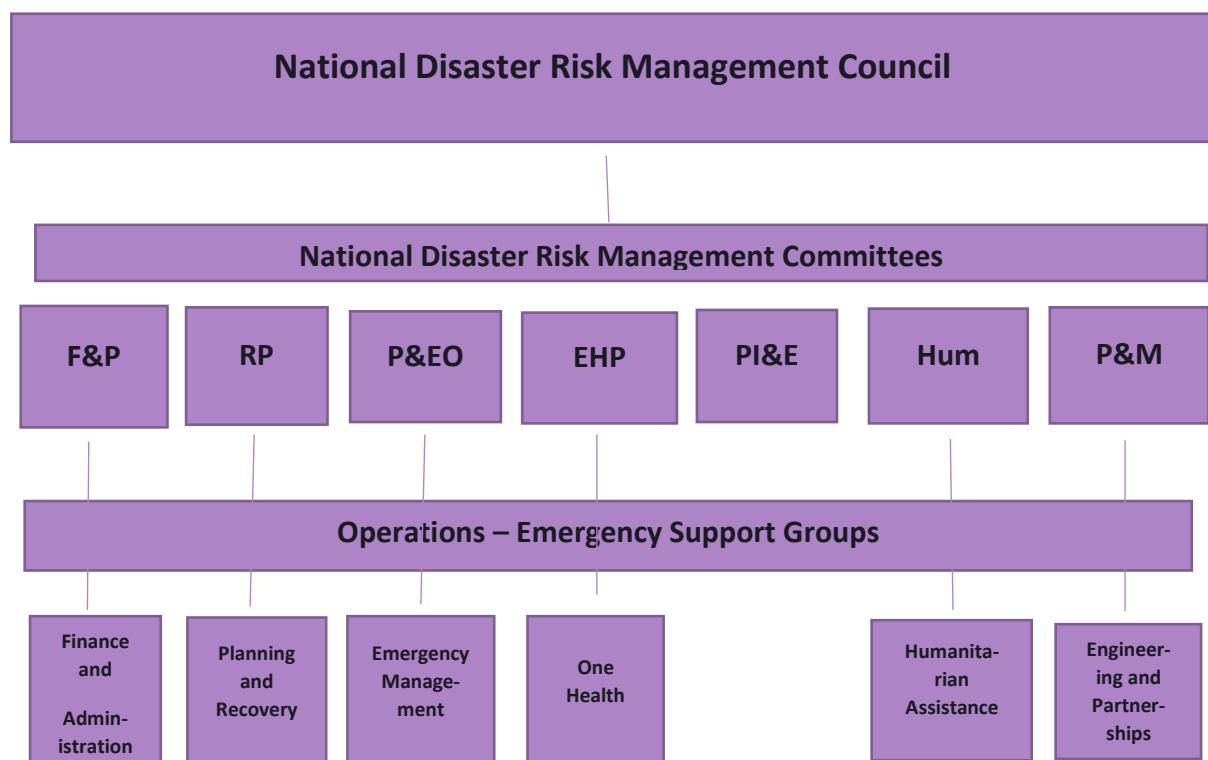


Figure 3. Relationship of Emergency Support Groups to NDRMC Committees

Key: F&P Finance and Planning, RP Recovery Planning, P&EO Preparedness and Emergency Operations, EHP Emergency Health and Planning, PI&E Public Information and Education, Hum Humanitarian, PM Prevention and Mitigation

11.2. Regional Level

For DRM the island is divided into four regions, each coordinated by a Regional Coordinator who is an ODPEM staff member. Regions are:

- a) Eastern comprising St Thomas, St Andrew, Kingston, St Catherine
- b) Northern comprising Portland, St Mary, St Ann
- c) Southern comprising Clarendon, Manchester, St Elizabeth
- d) Western comprising Trelawny, St James, Hanover, Westmoreland

There is no discrete administrative or operational structure for DRM at regional level which is comparable to either national or parish level. The Regional Coordinator, a staff member of ODPEM, acts a liaison with ODPEM for parishes, provides technical support to parishes and is co-located within the Parish Emergency Operations Centre (PEOC) during operations if required.

11.3. Parish Level

Section 19 of the 2015 DRM Act speaks to the establishment of the Parish Disaster Committee and its duties. At parish level, the Municipal Corporations under which the Parish Disaster Committees (PDCs) fall, have responsibility for DRM. The Parish Disaster Coordinator, an employee of the Municipal Council, has responsibility for management of DRM for the parish. For response, the Parish Disaster Coordinator has responsibility for ensuring the readiness of the PEOC. Parish Disaster Committees (PDCs) are chaired by the Mayor with the Custos as Deputy Chair. The PDC is comprised of several Sub-committees which are responsible for functional areas. Parish offices of ministries departments and agencies are members of the PDC. The subcommittees are the same as those at national level, viz:

- a) Finance and Planning chaired by the Municipal Corporation
- b) Recovery Planning chaired by Municipal Corporation or National Works Agency
- c) Preparedness and Emergency Operations chaired by Jamaica Fire Brigade
- d) Emergency Health and Planning chaired by the Health Department
- e) Public Information and Education chaired by the Jamaica Information Service/Municipal Corporation
- f) Humanitarian chaired by Ministry of Labour and Social Security
- g) Prevention and Mitigation chaired by the Municipal Corporation

However, parishes may combine some of these sub-committees depending on personnel and resources available.

11.4. Community Level

Section 23 of the DRM Act 2015 speaks to the establishment of Zonal Disaster Committees by the Parish Disaster Committee. These Zonal Committees are tasked to carry out public education, nomination of shelter managers, preparation of disaster plans and liaising with the Parish Disaster Committee on preparedness and response. Community Emergency Response Teams(CERTs) and Community-Based Disaster Risk Management (CBDRM) Groups

are attached to Zonal Committees as recommended by Municipal Corporations and approved/endorsed by ODPEM.

Global experience has shown that communities will spontaneously organise and respond post-disaster, starting search and rescue (SAR) operations and helping the vulnerable before external help arrives. There are a variety of community organisations which can support DRM at community level, all comprised of volunteers. Over the years ODPEM has established Community Emergency Response Teams (CERTs) and Community Based Disaster Risk Management (CBDRM) groups as part of the Zonal Committees. The Jamaica Red Cross has also established CERTs. These teams are trained in plan development, hazard mapping and damage assessment as well as the basics of first aid, search and rescue (SAR), shelter management and hazard and vulnerability analysis. In addition to having detailed and current knowledge of the community and its residents, they are usually the first elements of response for any event.

12. ROLE OF NATIONAL DISASTER RISK MANAGEMENT COUNCIL IN RESPONSE

The NDRMC is not an operational entity; however, it will support response and recovery operations in two main ways. First, many of the MDAs which make up the membership of the NDRMC have operational roles under the various national plans and will discharge these during response and recovery. Second, the Council should provide legislative, policy and strategic advice and support to the Executive and NEOC once it is activated.

12.1. NDRMC Executive

Once the NDRCP is activated the Executive will receive briefings from ODPEM and subsequently the NEOC Director. The Executive will:

- a) Invoke relevant legislation, orders, measures for the particular threat
- b) Ensure gazetting of legislation, orders, measures
- c) Provide support for enforcement of the legislation
- d) Declare disaster areas/ national disaster
- e) Approve decisions related to planned major evacuations including off-island
- f) Ensure access to necessary resources and budget for response operations
- g) Make decisions related to policy, longer term shifts in GOJ strategies
- h) Make decisions related to foreign relations and external affairs
- i) Make decisions related to national and border security
- j) Make decisions related to non-operational issues involving CARICOM and other regional entities.

12.2. NDRMC Committees

The NDRMC Committees will support response operations by

- a) Providing advice to the Executive and the NEOC Director when requested to do so
- b) Carrying out administrative decisions approved by the Executive which support operations
- c) Ensuring access to adequate resources for operations

- d) Support the Executive in decision making and implementation of decisions

12.3. NDRMC Committee Chairs

It is the responsibility of the Committee Chairs to ensure that committee members are able to discharge their responsibilities to the national DRM programme, including short term preparedness and response. The Chairs will therefore work closely with ODPEM in ensuring the completion of preparedness audits, evaluations and simulation exercises as required by the national disaster programme and plans. Further the Chairs will monitor progress in achieving targets established under DRM Monitoring and Evaluation Frameworks and will support ODPEM and committee members in acquiring resources necessary for timely and efficient response operations. Committee Chairs will also advocate for DRM/DRR/CCA and their integration into development planning.

During Response Operations the Committee Chairs will:

- a) Convene Committee meetings as required
- b) Provide advice as requested by Executive and NEOC
- c) Review Committee performance and report thereon
- d) Participate in media events and mirror important messaging as requested
- e) Participate in debriefs
- f) Ensure record keeping and archiving of committee records related to operations

13. DISASTER RESPONSE FRAMEWORK

The institutional framework for coordination of disaster response is designed to be highly inclusive. The DRM Act 2015 recognises the importance of a multi-level structure from national to community levels and including private and voluntary sectors. The structure is led by ODPEM which has the responsibility for ensuring the readiness and management of the National Emergency Operations Centre (NEOC).

13.1. National Emergency Operations Centre

Response is coordinated by the National Emergency Operations Centre situated at the offices of the National Coordinating Agency, ODPEM, at 2-4 Haining Road, Kingston. The ODPEM has the responsibility for ensuring that the NEOC is always ready for activation. ODPEM will initiate call-out of NEOC staff once activated.

The Deputy Director General (Operations) is the designated Director of the NEOC.

Alternative NEOC

In the event that the designated NEOC facility is rendered inoperable, the alternative is to be established at the JDF Headquarters at Up Park Camp, Kingston or any other locale deemed suitable by the NEOC Director as an alternative.

ODPEM staff form the core of NEOC staff, but staff of MDAs and volunteer organisations also hold NEOC positions. Three persons should be named for each NEOC position. In the event of a shortage of personnel, this number can be achieved by cross-training.

The idea of an NEOC Executive is under consideration. This group, if formed, would be responsible for advising the NEOC Director on matters of policy and should be defined in the NEOC SOPs.

13.2. Threat Levels

Threat levels describe potential or imminent threats to the country. Though referring to the impact of hazards in this plan it can also be applied to security threats. Threat levels are declared by the Director General ODPEM.

Table 5. Threat Levels for Jamaica

Threat Level	Colour	Status	Response Measure
0/N	Green	No potential threat detected.	Agencies monitor and respond to incidents as per their plans/SOPs
1	Yellow	Potential threat detected	ODPEM alerted by monitoring agency/Municipal Corporations. Monitoring continues. NDRMC, MDAs notified
2	Orange	High probability of impact	ODPEM alerts NDRMC, NEOC staff alerted. PDCs alerted.
3	Red	Impact imminent	NEOC activated and staffed commensurate with threat. PEOC activation according to geographic spread of threat

Table 6. Response Levels for Jamaica

Level	Colour	Impact	Response Measure
0 /N Normal	Green	Minor. Impact localized at incident site/community	Agencies monitor and respond to incidents as per their plans/SOPs
1	Yellow	Moderate. Impact to one parish	PEOC activated. ODPEM monitors. Adjoining parishes notified, help if necessary
2	Orange	Major. Impact to multiple parishes. National input required.	NEOC activated. PEOCs activated. NEOC Director calls out staff and resources as necessary.
3	Red	Severe. Entire island or multiple parishes severely affected. Requires coordination from national level. May require external	NEOC fully activated. Satellite EOCs activated. All public sector assets managed by NEOC.

		assistance.	
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13.3. NEOC Activation

The activation level is commensurate with the threat faced and will be decided by the NEOC Director.

Level 0/N Normal Times

ODPEM monitors. No NEOC response required. Agencies manage incidents as per their agency plans and SOPs.

Level 1 Staff Activation

Response assistance provided by ODPEM staff under direction of NEOC Director if required. Monitoring continues.

Level 2 Partial Activation

NEOC monitors. NEOC Director mobilizes personnel and resources as required/requested by parishes/agencies.

Level 3 Full Activation

Director calls out all staff necessary for event. Response coordinated from NEOC. Mobilisation of external support may be required. All government assets now come under NEOC management.

Options for virtual EOCs such as WebEOC which is used at regional level should be examined. This is further discussed in the Implementation Strategy for the NDRCP.

14. EMERGENCY SUPPORT GROUPS AND EMERGENCY SUPPORT FUNCTIONS MATRIX

A response operation requires multiple activities to be undertaken. These activities are designated as Emergency Support Functions (ESFs). Each ESF is led by the ministry, department or agency (MDA) which is given primary responsibility for coordinating that function. In order to coordinate response at national level several Emergency Support Functions are grouped under Emergency Support Groups (ESG). Each ESG is led by a ministry, department or agency (MDA) of government which has responsibility for coordinating that Group. Secondary and support responsibilities are also assigned. These can be assigned to public or private sector entities or NGOs and CBOs. However, these are not coordinating functions.

Functions of Emergency Support Group Leads

The agency designated as ESG Lead is responsible for coordination of all Emergency Support Functions of the ESG. The ESG Lead is a member of NEOC staff and reports to the NEOC Director.

14.1. EMERGENCY MANAGEMENT

This Group includes functions which will be executed as part of the initial response to an event, geared at saving lives, suppressing secondary threats, providing precautionary and life-saving information to the public and restoring lifeline systems.

Table 7. LEAD: ODPEM

ES FUNCTION	PRIMARY	SECONDARY	SUPPORT
Preparedness and Warning	ODPEM	PDCS/Ministry wrf DRM	NMS Ministry wrf Health, Agriculture, WRA, Earthquake Unit, NEPA, CAA, MAJ, Forestry Dept. MGD, ODPEM
Transportation	Ministry wrf Transport	NWA PDC	NEPA, MOH, UWI
Evacuation	ODPEM	Ministry wrf Transport, PDCs, Ministry wrf Social Security, JUTC	JUTA
Debris Management	NSWMA	PDCs, Ministry wrf Transport,	Private waste management companies/contractors, NWA
Search and Rescue (Land SAR)	JFB	JDF, JCF, PDCs	Community Emergency Response Teams (CERTs)
Heavy Rescue	JFB	NWA	JIE
Marine SAR	JDFCG	Marine Police, Harbour Master,	Caribbean Maritime University
Utilities	Office of Utilities Regulation (OUR)	ODPEM, Jamaica Public Service (JPS), National Water Commission (NWC), Telecommunications providers	PDCs
Communications and Information Technology	Min wrf Technology	ODPEM, JFB, JCF, JDF	Spectrum Authority, NWA, Amateur Radio Operators, Utilities, Telecommunications and data management providers
Public Information and Awareness	JIS	ODPEM, PDC	NMS, Ministries wrf Agriculture, Health Earthquake Unit, WRA,

ES FUNCTION	PRIMARY	SECONDARY	SUPPORT
			NWA
Media Coordination and Management	JIS	ODPEM, PDC	Media Houses, Broadcasting Association, Press Association of Jamaica
Resource Management	ODPEM	PDCs, MDAs	Private Sector, Voluntary Sector
Public Safety and Security	JCF	JDF	PDC
Oil and Hazardous Materials Management	JFB/JDFCG (Marine)	NEPA, Government Chemist, Marine Police NRCA	PCJ/Petrojam, Carib Cement, Bauxite Cos., Harbour Master
Chemical, Biological Nuclear and Radiological threat management	Hazardous Substances Regulatory Authority,	NEPA Min wrf Env NWC NRCA MOH, JFB	UWI, Petrojam, Bauxite Companies
Fire Prevention and Management	JFB	National Water Commission JDF. National Irrigation Commission	PDCs
Major Transportation Incident Management	Ministry wrf Transport	JFB, AAJ, Port Authority Civil Aviation Authority JCF Min wrf Health	PDCs, Marine Police Medical Association Jamaica, Private health facilities, Junior Doctors Assn, JDFCG

14.2. HUMANITARIAN ASSISTANCE GROUP

This Group includes functions related to the safety and care of the affected population.

Table 8 below:

Table 8. LEAD: MINISTRY WRF SOCIAL SECURITY

FUNCTION	PRIMARY	SECONDARY	SUPPORT
Emergency//Temporary Shelter	Min wrf Social Security	PDCs, Ministry wrf Local Govt., Ministry wrf Education, JDF	Jamaica Red Cross (JRC), CBOs, Food for the Poor, Hardware Merchants Association
Mass Care and Dietary Planning	Min wrf Social Security	PDCs, Mins. wrf Health, Local Govt.	JRC, Salvation Army (SA), Adventist Development and Relief Agency (ADRA)
Relief Management	Min wrf Social Security	PDCs, Ministry wrf Local Govt	JRC, Salvation Army, Adventist Development and Relief Agency (ADRA)

14.3. ONE HEALTH GROUP

This Group includes functions related to the physical and mental health of the population, as well as the health of flora and fauna.

Table 9. LEAD: MINISTRY WRF HEALTH

FUNCTION	PRIMARY	SECONDARY	SUPPORT
Medical Care, Mental, Public and Environmental Health	Min wrf Health	PDCS	Min wrf Social Security, Local Govt., UWI, Jamaica Red Cross Medical Assn Jamaica ADRA St John's Ambulance Brigade, Private ambulance companies
Animal Health and Welfare	Ministry wrf Agriculture	PDCs	Jamaica Veterinary Medical Association (JVMA), Jamaica Society for the Prevention of Cruelty to Animals (JSPCA)
Plant Health and Welfare	Ministry wrf for Agriculture	Forestry Dept	UWI (Botany, Biotechnology Centre)

14.4. ENGINEERING GROUP

This Group includes functions related to repair of public infrastructure and management of damaged structures to ensure public safety.

Table 10. LEAD: NATIONAL WORKS AGENCY

FUNCTION	PRIMARY	SECONDARY	SUPPORT
Public Works and Infrastructure	NWA	PDCs, JCF, JDF	Jamaica Institution of Engineers (JIE), JPS, NWC, NIC, NROCC, Min wrf Local Govt.
Building Inspection and Demolition	NWA	PDCs, JFB, JDF Jamaica Institution of Engineers (JIE)	UWI, UTECH, Jamaica Institute of Architects (JIA) Master Builders Assn.

14.5. PARTNERSHIPS GROUP

This group includes functions related to management of partnerships which support the response efforts of the Government of Jamaica.

Table 11. LEAD: MINISTRY WRF FOREIGN AFFAIRS

FUNCTION	PRIMARY	SECONDARY	SUPPORT
Partnerships and External Relations	Min wrf Foreign Affairs	ODPEM	UNDP JDF (Military)
Voluntary Organisations/NGO Coordination	ODPEM	CVSS	JRC, Service Clubs
Volunteer Coordination (Non Group)	ODPEM	PDCs	UNDP, JRC, Social Development Commission
Private Sector Coordination	Ministry wrf Commerce	JAMPRO	Small Businesses Assn. MSME Assn. JCC, PSOJ
CBO Liaison	Social Development Commission	PDCs	JRC, Faith Based Umbrella Groups, Service Clubs
Donations Management including financial donations	Ministry wrf Foreign Affairs	Min wrf Finance	Auditor General/Accountant General

14.6. PLANNING AND RECOVERY GROUP

This group contains functions related to assessing damage and impact of an event, information and data management, protection of natural resources and recovery planning. Activities related to integrating risk reduction and climate change adaptation into planning are also included.

Table 12. LEAD: PLANNING INSTITUTE OF JAMAICA

FUNCTION	PRIMARY	SECONDARY	SUPPORT
Damage Assessment	NWA	ODPEM, JDFEU	PDCs, Community Disaster Teams, Natl Spatial Data Management Branch
Impact Assessment	PIOJ	ODPEM, PDCs	MDAs, PSOJ, JCC, JMA
Data Analysis and Management	ODPEM	National Spatial Data Management Branch Ministry wrf Technology	Statistical Institute of Jamaica (STATIN), UWI
Documentation and Records	Statistical Institute of Jamaica (STATIN)	Jamaica Archives PDCs	Institute of Jamaica National Library of Jamaica, Heritage Trust
Recovery and Rehabilitation	PIOJ	All Ministries, PDCs, NGOs, CBOs	Municipal Corps., PSOJ Chamber of Commerce, Small Business Association
Mitigation/Risk Reduction/CCA	ODPEM	Ministries wrf Climate Change, Environment, Finance, Infrastructure, Local Govt.	Municipal Corps., PSOJ, JCC, JMA Academia
Environmental Management	NEPA	Ministry wrf Environment Municipal Corps	Attorney General, Environmental NGOs
Natural Resource Management	NEPA	Forestry Dept., WRA, NIC, Beach Control Authority, Maritime Authority of Jamaica	Environmental NGOs Municipal Corps

14.7. FINANCE AND ADMINISTRATION GROUP

This Group provides financial and administrative support to the response.

Table 13. LEAD: MINISTRY WRF FINANCE

FUNCTION	PRIMARY	SECONDARY	SUPPORT
Administrative Support	ODPEM	ODPEM Parent Ministry,	Ministry wrf Public Sector
Health and Welfare of responders/EOC staff	ODPEM	PDCs, MDAs	Voluntary Organisations
Emergency spending, Catastrophe Funds/Insurance claims	Min wrf Finance	Auditor General, Superintendent of Insurance	Accountant General
Financial record keeping	Min wrf Finance	Auditor General	Accountant General

14.8. Parish Level

Disaster response is coordinated by the Parish Emergency Operations Centre (PEOC) which manages operations within its capabilities and resource base. If parish capabilities are overwhelmed the parish may request assistance from adjoining parishes. If this is not adequate the parish may request help from ODPEM or the NEOC once the latter is activated.

The PEOC Director is the Chief Executive Officer of the Municipal Corporation or the Parish Disaster Coordinator.

PEOC staffing approximately mirrors that at national level. However, it should be noted that not all agencies are represented at parish level. If an agency which is not represented at parish level is required for parish response a request is made to the Agency Headquarters or the NEOC when activated.

NOTE: At response Level 3, parish and agency resources will be assigned to the NEOC which will be in charge of managing all assets and assigning priorities for resource allocation

14.9. Community Level

Some communities have established Community Emergency Response Teams (CERTS). The CERT Team Leader will coordinate community response as well as information flow to the PEOC. The CERT Team will identify a suitable location from which coordination of the response will be done. This will function as the Community Emergency Operations Centre (CEOC).

Trained community teams are a critical source of credible information immediately following impact. ODPEM should ensure adequate communications capability for community teams.

14.10. Incident Sites

The management system which is often employed to ensure efficient management of an incident on-site is the Incident Command System (ICS). This allows for integrating of equipment, personnel and procedures of several entities within a common framework.

Incident Commander

The Incident Commander (IC) has overall responsibility for management of the incident. He/She will delegate authority for certain activities to other responders as per their emergency support functions.

Designation of Incident Commander

Incident Commanders for various events will be:

Major transportation incident land	JCF
Major transportation incident marine	MAJ
Major transportation incident air	CAA
Oil spill/release land/river	JFB
Oil spill/release marine	JDFCG
Other hazardous materials spill/release land/river	JFB
Other hazardous materials spill/release marine	JDFCG
Major structural fire – buildings	JFB
Major fire – bush/forest	JFB
Major fire - hazardous materials	JFB
Search and rescue – land	JFB
Search and rescue – marine	JDFCG
Urban heavy rescue	JFB
Major explosion/terrorist incident	JCF
Mass crowd events	JCF
Mass casualty incidents	M wrf H
Disease Outbreak	JCF

Some incidents may be complex in nature and will require a multi-agency response under a unified command. In such circumstances the Incident Commander will be agreed on by the senior personnel at the site. In case of conflict/disagreement the decision will be made by the NEOC Director

14.11. Response Priorities

The Incident Commander will be guided by the following priorities:

High: Saving lives

Medium: Stabilising the incident to minimise the effect of the incident on population and surroundings

Low: Property Conservation and Evidence Preservation – minimising of damage to property and safeguarding evidence

14.12. Role of Incident Commander

On arrival at incident site:

- a) Establish communications centre and communicate with Base/HQ/PEOC/NEOC
- b) Establish incident command post (ICP)
- c) Establish unified command (multi-agency response)
- d) Ensure management of incident and decision log
- e) Establish safety perimeter
- f) Make assessment of situation
- g) Plan strategies
- h) Define needs – resources, facilities, equipment
- i) Develop Incident Action Plan (IAP) establishing response goals, operational objectives and support activities
- j) Delegate authority and responsibilities for emergency support functions
- k) Identify spokesperson (media interviews, questions)
- l) Execute IAP in conjunction with team
- m) Evaluate progress of plan and adjust as needed
- n) Declare incident response completed and advise Base/HQ/PEOC/NEOC
- o) Complete incident report

The first responding agency to arrive on site will assume the role of Interim Incident Commander until the arrival of the designated Incident Commander to whom command will be transferred with briefing.

The IC will request activation of the PEOC if required. If the PEOC is overwhelmed, assistance will be sought from adjoining parishes then national level. The NEOC Director will decide the level of activation required for the NEOC.

Note: The Incident Commander is sometimes referred to as the On-Scene Commander

Note: Currently, there is no common incident management system in use in Jamaica. Different agencies employ different systems. The standard incident management system may need to be adapted for Jamaica. The activities included here are for consideration.

15. CONCEPT OF OPERATIONS

15.1. Monitoring Forecasting Alerting Warning

The scientific and technical agencies (STAs) such as the National Meteorological Service (NMS), Water Resources Authority (WRA), Earthquake Unit (EU) and National Environment and Planning Agency (NEPA) and other MDAs provide monitoring and forecasting services and will alert ODPEM should there be a threat to the country.

Scientific and Technical Agencies/MDAs Monitoring and Alerting Responsibilities

Table 14. Monitoring and Alerting Responsibilities

AGENCY	HAZARD
Ministry of Health	Epidemics (Human)
(National) Meteorological Service of Jamaica	Meteorological, including drought, heatwaves. Tsunami
Water Resources Authority	Floods
Earthquake Unit UWI	Seismic
National Environment & Planning Agency	Environmental
Civil Aviation Authority	Aircraft Incidents
Maritime Authority of Jamaica	Marine Incidents
Ministry wrf Agriculture	Animal Epidemics, Agricultural Plant Epidemics
Forestry Department	Plant Epidemics (Non-agricultural)
ODPEM/Mines and Geology Division (MGD)	Earth Movements
Ministry wrf Finance	Financial ⁶
Ministry wrf Technology	Cyberthreats ⁷
JCF	National Security ⁸

Note: There is currently no Common Alerting Protocol being used in Jamaica. There are regional efforts underway in this regard, which, once established, can be adapted for Jamaica. Part 4 Annex 3 shows the elements of a proposed National Alerting System for Jamaica

15.2. Threat Levels

Threat Level 1

At Threat Level 1 ODPEM will notify the NDRMC Executive and will decide whether and when to coordinate a briefing for the NDRMC Executive. ODPEM will coordinate any

⁶ Financial threats are not treated as part of DRM and are not included in SOPs but are flagged here

⁷ Cyber threats and other ITC security threats are not treated as part of DRM and are not included in SOPs but are flagged here

⁸ National security threats are not treated as part of DRM and are not included in SOPs but are flagged here

meeting of the NDRMC as directed by the Chair. National Response Team notified by ODPEM.

Threat Level 2

Monitoring agencies will continue to monitor the threat and advise ODPEM. At Threat Level 2 ODPEM will alert NDRMC Executive. Agencies relevant to the threat are placed on alert.

Threat Level 3

NDRMC Executive is notified. ODPEM will convene meetings of Council as directed by Chair. NEOC activated by ODPEM and staffed commensurate with threat. PEOC activation is according to geographic spread of threat as advised by ODPEM.

15.3. Public Warnings

The STAs will provide the technical input for any warning messages. ODPEM adds precautionary information and despatches to the media, posts on website and social media channels. Agencies will also disseminate these warnings.

15.4. Use of Official Emergency Tone

The Chair NDRMC or designate, the Director General or Deputy Director General ODPEM or the NEOC Director will authorise use of the Official Emergency Tone.

15.5. NEOC Activation

The Director General ODPEM will decide on the timing and level of NEOC activation and will advise the Chair/Executive NDRMC on the decision to activate the NEOC. The decision to activate should be made on operational considerations. The decision to activate must not be compromised by inability to reach the Executive. See Figure 5 for NEOC Activation decision tree⁹.

On activation, the NEOC Director/Operations Officer will ensure call-out of required NEOC staff through the ESG Leads. Call out details are specified in the NEOC SOPs.

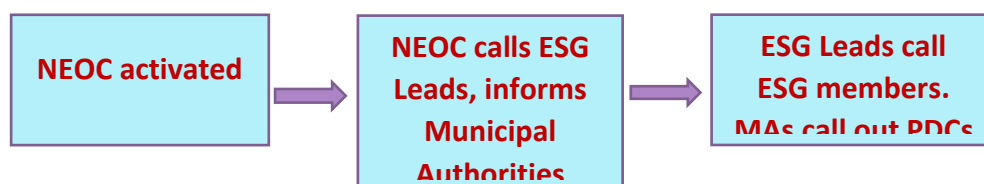


Figure 4. NEOC Call Out Sequence

⁹ NEOC activation decision tree modified from EOC Operational Guidelines, Emergency Management BC https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/local-government/eoc_operational_guidelines.pdf

The flowchart in Figure 5 outlines a pathway for activation of the NEOC.

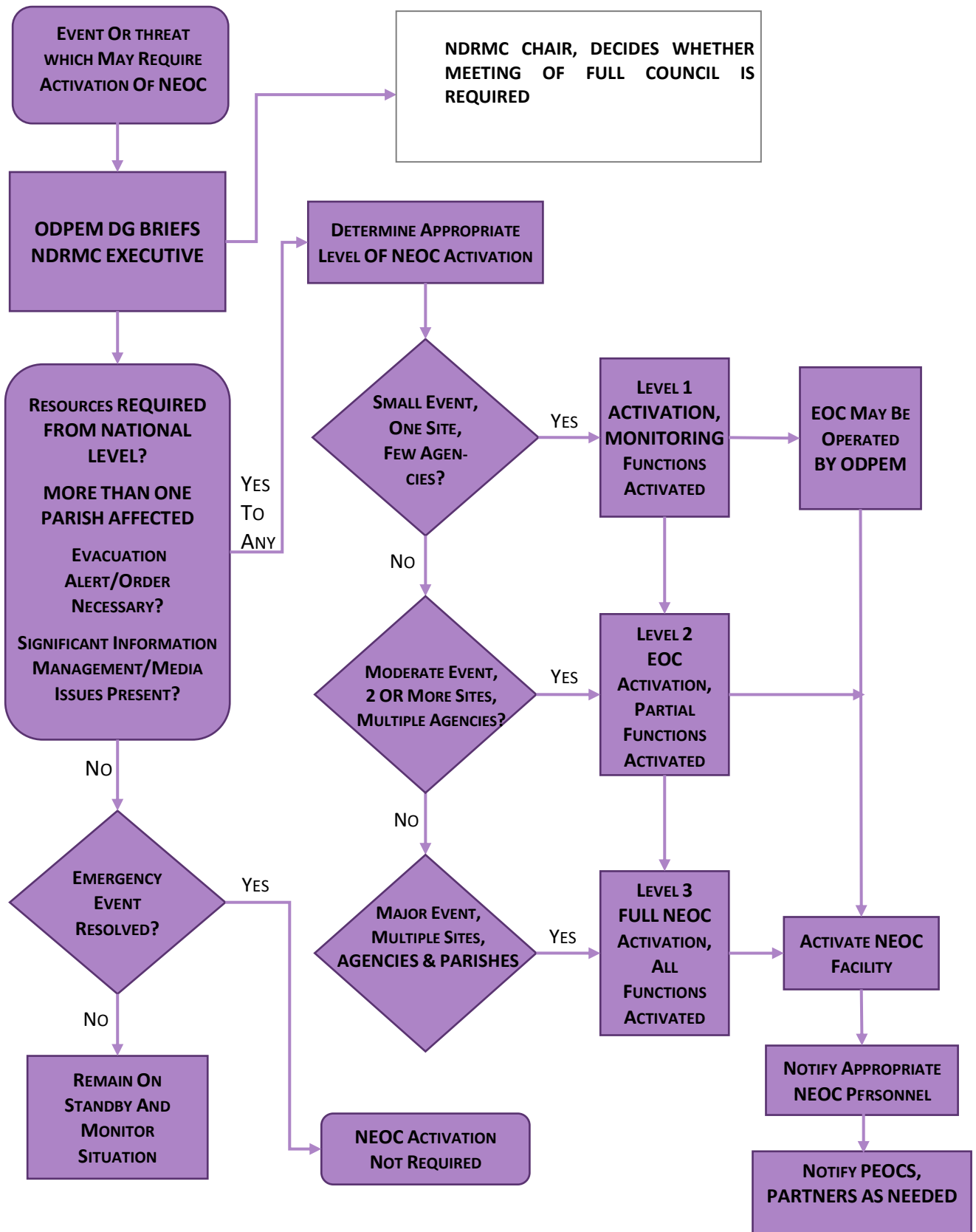


Figure 5. NEOC Activation Decision Tree

15.6. Responsibility for Decisions

All decision-making during operations requires timely and accurate information which is shared appropriately with decision-makers. The nature of operating in a crisis necessitates a clear understanding of the responsibility for decision-making and its authority. In good DRM practice, the EOC Director has full authority to make operational decisions.

The NDRMC and Executive are responsible for all decisions relating to GOJ policy, legislation, expenditure above pre-set limits, foreign relations and national and border security.

The NEOC Director is responsible for final operational decisions in the NEOC. Where possible, the Director will consult with appropriate parties such as ESG Leads, the NDRMC Executive, NEOC Policy Group, PEOC and Incident Commanders, in coming to a decision. Decisions relating to GOJ policy and strategic decisions which may have wider implications for GOJ must be referred up the chain of command to the NDRMC Executive. Good DRM practice does not support over-ruling of operational decisions unless in exceptional circumstances, and any over-ruling of an operational decision should be noted in the NEOC Log and implications spelt out. The following are examples of decisions under the authority of the NEOC Director:

- a) Establishing operational priorities, objectives and action plans
- b) Resource management
- c) Press releases, media interviews
- d) Public service announcements including precautionary information and warnings
- e) Situation reports and briefings
- f) MOU activation, requests for assistance
- g) Emergency evacuations
- h) Local evacuations

The PEOC Director is responsible for decisions relating to parish matters. Should there be conflict with national level decision-making the final decision lies with the NEOC Director.

15.7. Media Conferences and Interviews

The following persons are authorised to speak on behalf of the NDRMC Executive:

Chair, Deputy Chair or designates

The following persons are authorised to speak on behalf of ODPEM:

Director General, Deputy Director General, Director Information, Information Officer or designates

The following persons are authorised to speak on behalf of the NEOC:

NEOC Director, NEOC Operations Officer, Public Information officer or designates.

15.8. Resource Management

At Level 3 activation, the NEOC assumes control of all public sector assets and will prioritise resource allocation to parishes and incident sites. For Level 2 and under PEOCs and agencies will maintain control of parish and agency resources and allocate appropriately. In the event of conflicts at whatever level of activation the NEOC will make final decisions on resource allocation.

Priorities for resource allocation are:

Highest priority – Saving lives, reducing/preventing injuries, suppression of secondary hazards, Mass Care

Medium priority – Saving livelihoods, restoring major access routes, restoring utilities, minimising economic loss

Low priority – Restoring minor access routes, burials

15.9. Information Flow and Reporting

Two-way information flow from communities/incident sites to national level and back are essential for efficient coordination of response.

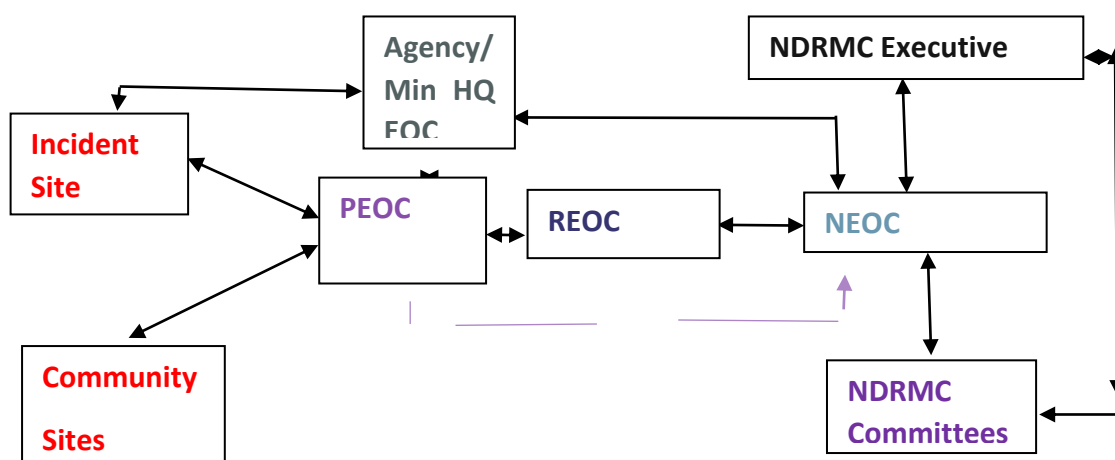


Figure 6. Communication pathways for response

Figure 6 shows optimum communication pathways from field sites through satellite EOCs and coordinating centres to the NEOC. However, in the urgency of operations. It may be necessary to sacrifice the optimum in the interest of speed.

At incident sites information coordination and transmission to the PEOC is the responsibility of the Incident Commander who will ensure updates every hour. For wide scale impact in which community teams are deployed information coordination and transmission to the PEOC is the responsibility of CERT Team **Leader**. The PEOC coordinates information flow

from parish through the Regional Coordinator and to the NEOC. The NEOC Director is responsible for ensuring coordination of information flow to the NDRMC Executive and NDRMC Committees. Agencies at incident sites will also communicate with their regional or national headquarters as stipulated in their SOPs.

15.10. Reporting

Reporting schedules and themes shall be as under (Table 9):

Reports to PEOC/NEOC

Table 15.Situation Reports to PEOC/NEOC

Timing:	Three times per day initially or as directed by NEOC/PEOC Director. As situation ameliorates frequency may be reduced.
Content:	Current situation analysis including human impact and damage, actions taken, priority actions for next reporting period, projected needs and requests for additional resources.
Approval:	(i) Incident Commander and/or CERT Leader
	(ii) PEOC Director

Reports to NDRMC Executive

Table 16.Situation Reports to NDRMC Executive

Timing:	Once per day or as requested by Chair NDRMC
Content:	Impact, damage, major actions taken, implications, priorities for next period, any policy/direction changes required from policy level, summary of any external contacts and outcomes, request for resources, any messaging to be reinforced by policy level. Recommendations.
Approval	NEOC Director

15.11. Public Information

Public information and public service announcements (PSAs) are coordinated by the Jamaica Information Service based on inputs from entities taking part in the response. Once drafted, releases are reviewed by the NEOC Operations Officer and approved by the NEOC Director prior to release and circulation.

15.12. End of Response Operations – NEOC Deactivation

The NEOC will be deactivated once there is no longer need for response coordination and early recovery operations have started. The decision to deactivate is made by the NEOC Director after discussions with ESG Leads, Incident Commanders, PEOC Directors and senior NEOC staff. The NEOC Director will inform the NDRMC through the Chair. The NDRMC will ratify the decision. A quick review of operations (the “Hot Wash-Up”) should be organised

immediately on deactivation by the NEOC Director, with a more detailed debrief being undertaken within 3 weeks. A full After-Action Report (AAR)¹⁰ should be produced by ODPEM within **six weeks** of deactivation. ESG leads are responsible for Group debriefs and AARs and entities with Primary responsibility are responsible for ESF debriefs and AARs. The PEOC Director is responsible for the parish debriefs and AARs.

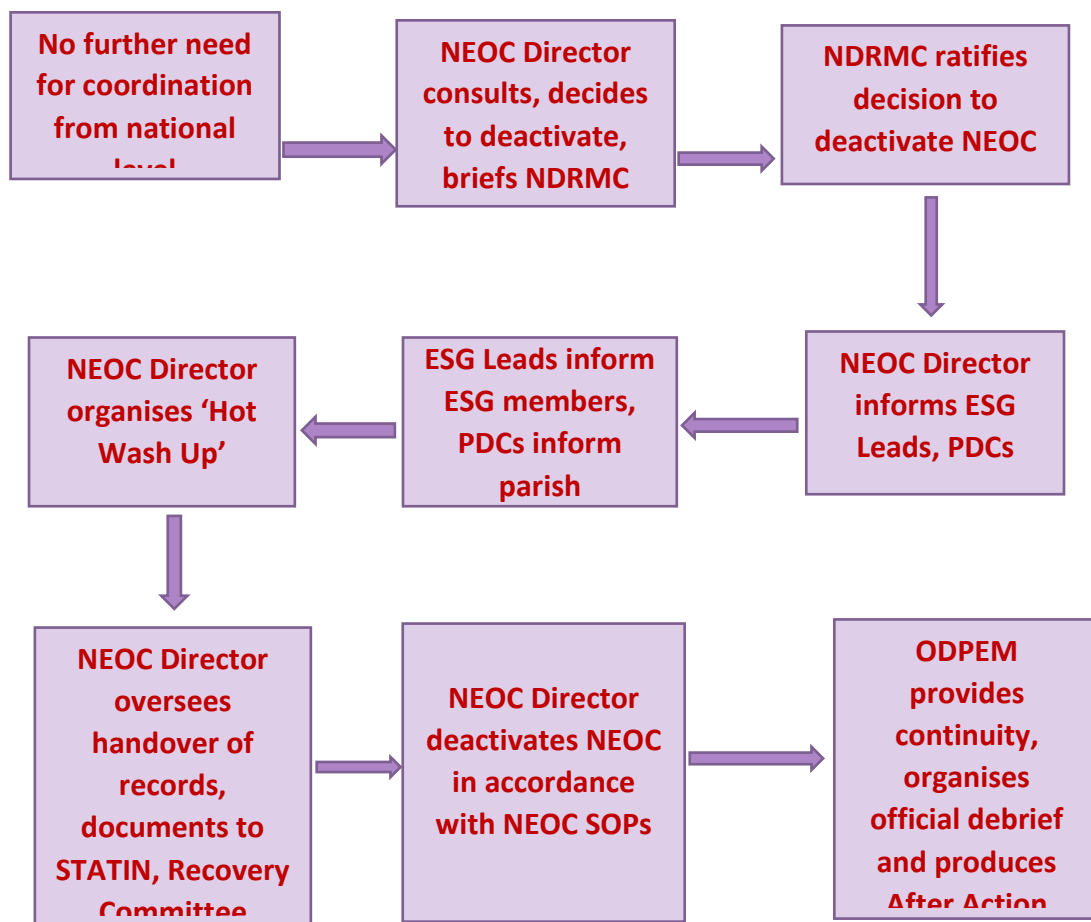


Figure 7. NEOC Deactivation Flowchart

Note: Parishes may activate EOCs without activation of the NEOC
PEOCs may continue to operate after NEOC is deactivated

15.13. Early Recovery

There is no line between response operations and early recovery. Response merges into early recovery and activities of both phases will overlap. Early recovery activities might be coordinated from the NEOC but will transition to recovery operations by which time the

¹⁰ The After Action Review, is an evaluation of the response to a real or simulated event. It identifies strengths, areas for improvement and gaps. The evaluation is done against the requirements of the response plan and should result in an action plan to address weaknesses and gaps. The response plan should be updated based on the findings of the review.

NEOC will be deactivated. Recovery operations will be coordinated as directed by the Government of Jamaica.

PART TWO

16. STANDARD OPERATING PROCEDURES (SOPs)

Response has several specific tasks, roles and responsibilities that must be efficiently executed in a relatively short space of time. To prevent delays and to eliminate ambiguities with regards to chain of command, the national framework for emergency/disaster response must ensure the existence of a regime that is distinguished by proper coordination, quick decision-making, rapid deployment of assets to affected areas. This is best achieved by ensuring a clear understanding of the roles and responsibilities of the various actors involved in response operations.

This section of the NDRCP summarizes the activities to be undertaken by those entities involved in the response which have a coordinating function. The SOPs cover the preparatory activities for response, as well as activities to be undertaken during response.

16.1. EMERGENCY SUPPORT GROUP (ESG) LEADS

Preparedness

- a) Coordinate review of functional plans for ESG and ensure updates
- b) Coordinate participation of ESG in simulation exercises as required
- c) Coordinate update of ESG contact list and advise ODPEM
- d) Review call-out tree and update as necessary
- e) Coordinate review of preparedness of agencies in collaboration with ODPEM
- f) In collaboration with ESG Lead Finance and Administration review budgetary requirements and pre-set expenditure levels and adjust if necessary
- g) Coordinate update of resource inventory for ESG and advise ODPEM
- h) In collaboration with ODPEM, ESG Lead Finance and Administration identify strategy for addressing gaps
- i) In collaboration with ministry wrf for ICT and ODPEM review availability of maps, data for response and ensure access
- j) Coordinate review of ICT needs for response including field needs, review available resources and identify gaps
- k) In collaboration with ODPEM identify resources/strategy to address gaps
- l) In collaboration with ODPEM review arrangements for health and welfare of all actors in ESG during response operations.

Response

- a) On receiving alert from ODPEM coordinate alerting of all ESG members
- b) Coordinate information flow from NEOC to ESG members and reverse
- c) In collaboration with NEOC Director coordinate updating of data/information from ESG in NEOC

- d) Coordinate tracking of ESG resources involved in response
- e) In collaboration with NEOC Director ensure availability of resources for response
- f) If required coordinate shift assignments for ESG
- g) Coordinate compilation of end-of shift reports for handover
- h) Coordinate hand-over briefings
- i) Ensure ESG records updated and passed to NEOC Director at deactivation
- j) Coordinate ESG debrief and compilation of After-Action Report

16.2. ESG: EMERGENCY MANAGEMENT

FUNCTION: PREPAREDNESS AND WARNING

RESPONSIBILITY: PRIMARY

LEAD: ODPEM

PREPAREDNESS

- a) Meet with scientific and forecasting, monitoring and alerting agencies for updates and projections on scenarios
- b) Coordinate development of scenarios for various hazards
- c) Meet with agencies responsible for Public Information and review SOPs and message formats
- d) In Collaboration with ESG Leads develop scenarios and organise appropriate simulation exercises
- e) Assist Parish Disaster Committees with exercises as necessary
- f) In collaboration with ESG Leads/NDRMC Chairs/Lead entities review After Action Reports on exercises and ensure updating of plans, SOPs and submit plan for addressing gaps to NDRMC
- g) In collaboration with ESG Leads ensure review and update of relevant functional and hazard management plans and SOPs
- h) In collaboration with ESG Leads update National DRM Resource List
- i) In collaboration with ESG Leads update National Contact List
- j) Liaise with Communications and IT Lead and ensure operational readiness of all equipment
- k) Ensure MOUs, Letters of Agreement and other mutual aid instruments are valid
- l) Complete preparedness audit and compile report for Chair NDRMC

As part of longer-term preparedness planning ODPEM should coordinate at minimum one national full scale exercise every two years and at minimum two national table top exercises each year

RESPONSE

- a) In collaboration with scientific and technical agencies determine level of threat and appropriate scientific and technical input for public messaging
- b) Ensure timely dissemination and appropriate messaging of warnings to public
- c) Coordinate briefing of NDRMC and Parish Disaster Committee Executives
- d) Coordinate staffing, provisioning and activation of NEOC
- e) Ascertain status of all coordinating centres (EOCs at all levels) and recommend activation as appropriate
- f) In collaboration with ESG Lead Partnerships ensure all bilateral, regional and international partners briefed

NOTE: Available technology allows remote briefings. Joint parish and national briefings can therefore be done and should be considered.

ESG: EMERGENCY MANAGEMENT

FUNCTION: TRANSPORTATION

RESPONSIBILITY: PRIMARY

AGENCY: MINISTRY WRF TRANSPORT

PREPAREDNESS

- a) In collaboration with ODPEM review projected equipment needs for evacuation, field teams, search and rescue and debris removal
- b) Coordinate access for all types of transportation and heavy duty equipment requirements through appropriate MOUs with entities such as JUTC, JUTA, Truckers, Contractors
- c) In collaboration with ESG Lead Finance and Administration ensure arrangements in place for access to fuel, maintenance during operations
- d) In collaboration with ESG Lead Finance and Administration ensure arrangements in place for recruitment and payment of required human resources
- e) In collaboration with NWA, NSWMA, ODPEM update Equipment and Transport Resource List

RESPONSE

- a) On activation coordinate with NEOC activation of any necessary MOUs
- b) Coordinate listing of immediately available assets
- c) Create schedule for bringing onstream any assets not immediately available

- d) Coordinate management of all assets throughout operation
- e) In collaboration with NEOC Director track asset deployment

ESG: EMERGENCY MANAGEMENT

FUNCTION: EVACUATION

RESPONSIBILITY: PRIMARY

AGENCY: ODPEM

PREPAREDNESS

- a) Coordinate review of risk analysis and mapping of flood/landslide prone areas including update of demographics
- b) Coordinate review of risk analysis for hazardous materials releases which may require evacuation (e.g. chlorine, sodium hydroxide)
- c) Coordinate multi-agency review of evacuation plans at national and parish levels and update as necessary
- d) Coordinate multi-agency review of arrangements for warning, evacuation and shelter of vulnerable persons and update as necessary
- e) Coordinate review of procedures for registration of persons needing help for evacuation
- f) Coordinate review of transportation arrangements, evacuation routes and traffic control arrangements
- g) Coordinate review of security arrangements for evacuation, evacuated areas

RESPONSE

- a) In collaboration with scientific and technical agencies identify areas for and timing of evacuations
- b) Coordinate discussions on evacuations with DRM Executive at national and parish levels
- c) Ensure timely issuing of evacuation order
- d) Coordinate all evacuation activities as per evacuation plan
- e) Coordinate evacuation data management, mapping
- f) Coordinate re-entry activities
- g) Coordinate after action review and update of evacuation plan

ESG: EMERGENCY MANAGEMENT

FUNCTION: DEBRIS MANAGEMENT

RESPONSIBILITY: PRIMARY

AGENCY: National Solid Waste Management Authority (NSWMA)

PREPAREDNESS

- a) In collaboration with ESG Lead Finance and Administration ensure clarity of conditions for use of private equipment and operators including legal liability if any
- b) Ensure MOUs are valid
- c) Coordinate with parishes locations for debris storage and disposal
- d) Coordinate with MOH, NEPA, WRA protocols for management of hazardous and contaminated waste
- e) Coordinate with ODPEM for dissemination of protocols as necessary
- f) Coordinate with Port Relief Clearance Working Group procedure for disposal of unwanted relief items

RESPONSE

- a) Coordinate transportation requirements for debris removal
- b) In collaboration with NEOC Director, ESG Leads determine priorities for debris removal
- c) Coordinate debris removal
- d) Coordinate contracting of private resources for debris removal
- e) Coordinate separation of waste – hazardous, non-hazardous
- f) Ensure debris is disposed of at identified and approved sites

ESG: EMERGENCY MANAGEMENT

FUNCTION: SEARCH AND RESCUE

RESPONSIBILITY: PRIMARY

AGENCY: JAMAICA FIRE BRIGADE

PREPAREDNESS

- a) In collaboration with ODPEM and scientific and technical agencies develop projection of potential casualties from developed scenarios
- b) Coordinate risk mapping of potential mass casualty sites
- c) Coordinate review of plans and update
- d) Inventory available SAR equipment
- e) Coordinate acquisition of required specialised equipment

RESPONSE

- a) As Incident Commander coordinate incident site response
- b) Coordinate search teams, compile information
- c) Coordinate management of land and air assets

- d) Coordinate requests for additional/specialised equipment
- e) Coordinate communications with PEOC/NEOC
- f) Coordinate debris management if necessary
- g) Coordinate debrief and After Action Report.

Note: Community members are the first to try to effect rescue after any event. It may be necessary to manage community members at incident sites. The JFB should develop plans for this

ESG: EMERGENCY MANAGEMENT

FUNCTION: HEAVY RESCUE

RESPONSIBILITY: PRIMARY

AGENCY: JAMAICA FIRE BRIGADE

PREPAREDNESS

- a) Coordinate review of heavy rescue plans
- b) Coordinate inventory of available equipment for heavy rescue in public and private sectors
- c) Identify gaps and research possibility of accessing equipment from multi or bi-lateral sources
- d) Coordinate development of contact list for owners and operators of equipment

RESPONSE

- a) As Incident Commander coordinate management of incident site(s)
- b) Coordinate acquisition of required equipment
- c) Coordinate inputs of specialised assistance (e.g. structural engineers, equipment)
- d) Coordinate requests for data/information (e.g. building plans) *
- e) Coordinate information flow to HQ/PEOC/NEOC
- f) Coordinate safety and security requirements for emergency personnel
- g) Coordinate safety and security requirements for public including establishment of safety perimeter
- h) Coordinate welfare requirements of emergency personnel
- i) Coordinate debris management
- j) Coordinate debrief and After Action Report*

(Note: floor plans for multi-storey buildings should routinely be lodged with JFB). Digitisation of plans allowing remote access is necessary.

ESG: EMERGENCY MANAGEMENT
FUNCTION: MARINE SEARCH AND RESCUE
RESPONSIBILITY: PRIMARY
AGENCY: JAMAICA DEFENCE FORCE COAST GUARD

PREPAREDNESS

- a) Coordinate review of plans
- b) Coordinate inventory of available vessels and equipment
- c) Coordinate development of contact list for owners and operators of marine equipment
- d) Coordinate establishment of MOUs with marine equipment owners/operators
- e) Coordinate participation of all actors in simulation exercises

RESPONSE

- a) Coordinate site response as Incident Commander
- b) Establish Unified Command
- c) Establish incident and safety perimeter
- d) Coordinate search assets including air assets
- e) Coordinate liaison with private search assets
- f) Coordinate information flow to NEOC
- g) Coordinate debrief and After Action Report

ESG: EMERGENCY MANAGEMENT
FUNCTION: UTILITIES
RESPONSIBILITY: PRIMARY
AGENCY: OFFICE OF UTILITIES REGULATION

PREPAREDNESS:

- a) Coordinate meetings with utilities, telephony, data and internet providers, cable providers to review procedures, establish priorities for restoration
- b) Coordinate review of use of emergency tone, dissemination of emergency broadcasts
- c) Coordinate review of procedures for display/dissemination of alerts, warnings, Public Service Announcements
- d) Coordinate review of procedures for dissemination of messaging to hearing/visually impaired.

RESPONSE

- a) In collaboration with NEOC/JIS ensure dissemination of messaging from NEOC
- b) Coordinate emergency restoration of services in keeping with operational priorities established by NEOC
- c) Coordinate longer term restoration into recovery period
- d) Coordinate debrief and develop After Action Report

ESG: EMERGENCY MANAGEMENT

FUNCTION: COMMUNICATIONS AND INFORMATION TECHNOLOGY

RESPONSIBILITY: PRIMARY

AGENCY: MINISTRY WRF TECHNOLOGY

PREPAREDNESS

- a) Coordinate review of telecommunications system in collaboration with ODPEM/JCF/JDF/Ham Radio and ensure adequate redundancy and interoperability
- b) Coordinate availability of mobile communications capability which can be deployed islandwide
- c) Coordinate review of agreements with telephony and internet providers and ensure validity
- d) Coordinate access to satellite phones for NEOC/PEOCs
- e) Coordinate access to geospatial technology and unmanned aerial vehicles
- f) Coordinate review of communications for CERTs in collaboration with PEOC/ODPEM/CBers
- g) Coordinate review of software applications used in response, ensure licenses are valid
- h) Coordinate review and dissemination of procedures for radio traffic in collaboration with ODPEM/PEOCs

RESPONSE

- a) Coordinate 24hr availability of technical support for ICT for NEOC/PEOCs/Incident Sites
- b) Ensure functionality of equipment
- c) Coordinate access to additional ICT resources if required
- d) Coordinate inputs of telephony and internet providers
- e) In collaboration with NEOC Director prioritize requests for ICT resources
- f) Coordinate debrief and After Action Report for ICT

ESG: EMERGENCY MANAGEMENT
FUNCTION: PUBLIC INFORMATION AND AWARENESS
RESPONSIBILITY: PRIMARY
AGENCY: JAMAICA INFORMATION SERVICE

PREPAREDNESS

- a) In collaboration with ODPEM and scientific and technical agencies:
 - a. review formats for warning messages
 - b. review Public Service Announcement templates
- b) In collaboration with ODPEM review social media messaging and adjust
- c) In collaboration with ODPEM review Public Information plan and update

RESPONSE

- a) Coordinate development and dissemination of Public Service Announcements and media releases
- b) Coordinate visual and printed documentation of event
- c) Ensure consistency of messaging across social media platforms and government entities
- d) Coordinate management of misinformation and rumours
- e) Coordinate debrief and After Action Report

ESG: EMERGENCY MANAGEMENT
FUNCTION: MEDIA COORDINATION AND MANAGEMENT
RESPONSIBILITY: PRIMARY
AGENCY: JAMAICA INFORMATION SERVICE

PREPAREDNESS

- a) Coordinate update of media contacts
- b) Coordinate review of any agreements on access to media for operations
- c) In collaboration with PICA, ODPEM, Jamaica Customs review procedures for management of arriving media
- d) In collaboration with Airports Authority of Jamaica (AAJ) identify media registration areas at airports
- e) Develop registration forms for incoming media personnel

RESPONSE

- a) Coordinate media briefings
- b) Coordinate management of arriving media
- c) Coordinate with NEOC, PEOCs media visits to impacted sites
- d) Coordinate monitoring of various media platforms in order to manage potential misinformation/rumours
- e) Coordinate debrief and After Action Report

ESG: EMERGENCY MANAGEMENT

FUNCTION: RESOURCE MANAGEMENT

RESPONSIBILITY: PRIMARY

AGENCY: ODPEM

PREPAREDNESS

- a) In collaboration with ESG Leads review National Resource List
- b) In collaboration with PDCs review Parish Resource Lists
- c) Ensure availability of searchable data base of national assets
- d) Develop/review resource management request and dispatch forms
- e) In collaboration with ESG Leads and PDCs review and update procedures for resource allocation

RESPONSE

- a) In collaboration with ESG Leads identify pre-positioning of response resources if possible (Slow-onset event)
- b) In collaboration with ESG Leads check available resources against resource listing. Flag disparities and Identify resources available for deployment in event
- c) Coordinate maintaining of functionality of resource data base and track asset deployment
- d) In collaboration with ESG Lead ICT ensure current display of assets and their deployment available in NEOC
- e) In collaboration with NEOC Director determine priorities and ensure timely deployment of assets
- f) Coordinate debrief and After Action Report

ESG: EMERGENCY MANAGEMENT

FUNCTION: PUBLIC SAFETY AND SECURITY

RESPONSIBILITY: PRIMARY

AGENCY: JAMAICA CONSTABULARY FORCE

PREPAREDNESS

- a) In collaboration with ODPEM and ESG Leads Emergency Management, Humanitarian Assistance, One Health, Engineering review projected security needs for response
- b) Coordinate with JDF, Attorney General's office review of public safety and security plans
- c) Coordinate with JDF projection of mobility requirements for public safety
- d) In collaboration with ESG LEAD Finance and Administration plan for addressing any identified resource gaps

RESPONSE

- a) Coordinate security for NEOC
- b) Coordinate security for evacuation, shelters, warehouses
- c) Coordinate security for other locations as identified by NEOC (e.g. field teams)
- d) Coordinate with ports and airports meeting any additional security requirements
- e) Coordinate debrief and After Action Report

ESG: EMERGENCY MANAGEMENT

FUNCTION: OIL AND HAZARDOUS MATERIALS MANAGEMENT

RESPONSIBILITY: PRIMARY

AGENCY: JAMAICA FIRE BRIGADE

PREPAREDNESS:

- a) In collaboration with ODPEM, NEPA, JDFCG, PCJ/PETROJAM/ MAJ review risk analysis and update risk maps and plans
- b) In collaboration with ODPEM, NEPA, JDFCG, PCJ/PETROJAM/MAJ, port operators review response equipment
- c) In collaboration with ODPEM update/replace/add equipment as indicated by risk analysis
- d) In collaboration with ODPEM plan simulation exercise if due based on national schedule
- e) In collaboration with Attorney General's Office, NEPA review legal options for sanctions for polluters
- f) In collaboration with Ministry wrf Finance, NEPA review economic valuation of natural resources at risk from spills/leaks
- g) In collaboration with NSWMA/PDC/NEPA/WRA review options and sites for disposal of hazardous waste
- h) Review material inventory and sources

RESPONSE

- a) Act as Incident Commander at response site – coordinate site response
- b) Coordinate information flow to PEOC/NEOC
- c) In collaboration with NEPA ensure minimisation of environmental footprint of response
- d) In collaboration with NEPA/WRA/MOH, NSWMA, PEOC coordinate safe disposal of waste
- e) In collaboration with NEPA/WRA ensure documentation/recording of impact/damage
- f) Coordinate debrief and After Action Report

ESG: EMERGENCY MANAGEMENT

FUNCTION: CHEMICAL, BIOLOGICAL AND NUCLEAR AND RADIOLOGICAL THREAT

RESPONSIBILITY: PRIMARY

AGENCY: HAZARDOUS SUBSTANCES REGULATORY AUTHORITY

PREPAREDNESS

- a) In collaboration with NEPA, JDF, UWI, Health Ministry review risk analysis and update risk maps and plans
- b) In collaboration with ODPEM, MOH, NEPA, UWI review response equipment and identify gaps
- c) In collaboration with ODPEM update/replace/add equipment as indicated by risk analysis
- d) In collaboration with ODPEM plan simulation exercise if due based on national schedule
- e) In collaboration with Attorney General's Office, NEPA review legal options for sanctions
- f) In collaboration with PetroJam, UWI review options for disposal of waste

RESPONSE

- a) Act as Incident Commander at response site – coordinate site response
- b) Coordinate safety of incident site including establishment of safety perimeter
- c) In collaboration with NEOC/PEOC determine need for evacuation and execute if necessary
- d) Coordinate safety of response personnel
- e) Coordinate information flow to PEOC/NEOC
- f) In collaboration with NEPA ensure minimisation of environmental footprint of response

- g) In collaboration with NEPA/WRA/MOH/NSWMA/PEOC/PETROJAMUWI coordinate safe disposal of waste
- h) In collaboration with NEPA/WRA ensure documentation/recording of impact/damage
- i) Coordinate debrief and After Action Report

ESG: EMERGENCY MANAGEMENT
FUNCTION: FIRE PREVENTION AND MANAGEMENT
RESPONSIBILITY: PRIMARY
AGENCY: JAMAICA FIRE BRIGADE

PREPAREDNESS

- a) In collaboration with ODPEM, STAs review scenarios for fires as secondary hazard
- b) In collaboration with ODPEM, STAs review risk analysis, mapping for bush (wild) fires
- c) In collaboration with ODPEM, review risk analysis, mapping for structural fires
- d) In collaboration with ODPEM, JIS review messaging for fire prevention
- e) In collaboration with ODPEM, review available equipment, identify gaps based on risk analyses, scenarios
- f) In collaboration with ODPEM, NWC, JDF review plans for water availability and transport for fire fighting

RESPONSE

- a) Coordinate response at incident sites
- b) Coordinate safety measures at incident site, ensure public and first responder safety
- c) Coordinate responses to secondary hazards (e.g. hazardous materials)
- d) In collaboration with PEOC/NEOC coordinate local evacuation if necessary
- e) In collaboration with health ministry/department coordinate management of casualties
- f) Coordinate debrief and After Action Report

ESG: EMERGENCY MANAGEMENT
FUNCTION: MAJOR TRANSPORTATION INCIDENT MANAGEMENT
RESPONSIBILITY: PRIMARY
AGENCY: MINISTRY WRF TRANSPORTATION

PREPAREDNESS

In collaboration with appropriate ESG leads and including JFB, AAJ. Port Authority, CAA, JCF, JDF. Ministry wrf Health, ODPEM:

- a) Review major transportation incident plans and update as necessary

- b) Review available equipment and resources and identify gaps
- c) Develop plan for addressing gaps
- d) Review agreements and Memoranda of Understanding and update
- e) Coordinate ESG involvement in simulation exercises

RESPONSE

- a) Coordinate access to resources for Incident Commanders
- b) In collaboration with NEOC coordinate information flow, PSAs
- c) In collaboration with NEOC coordinate information flow to families of affected persons
- d) In collaboration with NEOC coordinate sector specific messaging
- e) In collaboration with NEOC coordinate requests for external support
- f) In collaboration with NEOC coordinate external interests'* liaison with GOJ
- g) Coordinate debrief and develop After Action Report

*External interests such as airlines, cruise lines, tour operators, family members, bilateral partners

16.3. ESG HUMANITARIAN ASSISTANCE

FUNCTION: SHELTER (EMERGENCY/TEMPORARY)

RESPONSIBILITY: PRIMARY

AGENCY: MINISTRY wrf SOCIAL SECURITY

PREPAREDNESS

- a) In collaboration with ODPEM, PDCs, Scientific and Technical agencies estimate numbers of persons who may need emergency shelter for specific scenarios
- b) In collaboration with ODPEM/PDCs review available shelter space
- c) In collaboration with ODPEM/PDCs review available emergency stocks and coordinate access to additional supplies as required
- d) Coordinate review of nutritional standards for shelter meals
- e) In collaboration with JCF review plans for security at shelters
- f) In collaboration with the Bureau Gender Affairs plan gender specific inputs to response
- g) In collaboration with Children's Services Division plan for care of children/youth in shelters
- h) In collaboration with NSWMA/PDCs review plans for waste management at shelters

- i) Coordinate adjustments/updates to plans as necessary

RESPONSE

- a) In collaboration with ODPEM/PEOCs coordinate shelter access for affected population
- b) Coordinate emergency relief supplies, sanitation supplies for shelters
- c) In collaboration with MLSS, PEOCs establish sanitation schedule for shelters
- d) Coordinate medical care including mental health care for affected population
- e) Coordinate registration of affected population
- f) Coordinate care for vulnerable persons
- g) Coordinate management of shelter operations including sanitation, waste management, security
- h) Coordinate cleaning, sanitising of shelters and handover to Ministry wrf Education/Other
- i) Coordinate debrief and After Action Report for transmission to ODPEM

ESG HUMANITARIAN ASSISTANCE

FUNCTION: RELIEF MANAGEMENT/MASS CARE/DIETARY PLANNING

RESPONSIBILITY: PRIMARY

AGENCY: MINISTRY wrf SOCIAL SECURITY

PREPAREDNESS

- a) In collaboration with ODPEM and scientific and technical agencies develop projections of humanitarian needs broken down by sex and age based on scenarios
- b) Coordinate review of national and parish level relief management plans including NGO and CBO plans. Ensure harmonisation
- c) Coordinate review of emergency shelters, including access to keys, cleaning and staffing arrangements
- d) In collaboration with ODPEM make arrangements for lines of credit and/or other access to emergency supplies
- e) In collaboration with ESG Lead Emergency Management and PDCs review and update plans for transportation and security of relief supplies
- f) In Collaboration with Jamaica Customs Agency/Port Relief Clearance Team/ Airports Authority review arrangements for handover of relief supplies at ports of entry including identification of storage spaces/bonded warehouses off the port. Ensure harmonisation of relief distribution plans with Emergency Relief Clearance Plan
- g) In collaboration with PDCs review relief distribution arrangements at parish and community level
- h) Coordinate procedures for identifying, registering and planning for ensuring access to assistance for vulnerable persons
- i) In collaboration with Ministry wrf ICT review and update systems/software for management and tracking of relief supplies

- j) In collaboration with Ministry wrf Health review dietary needs of shelter populations, adjust shelter meal plans accordingly

RESPONSE

- a) Coordinate impact assessments by field teams
- b) Coordinate opening and staffing of shelters
- c) In collaboration with JCF coordinate shelter security arrangements, ensure protection of women, minors, aged and other vulnerable groups
- d) Coordinate development of inventory of humanitarian relief needs based on scenarios, initial reports
- e) Coordinate ex-port of entry transportation, storage and sorting of humanitarian supplies
- f) Coordinate access to humanitarian relief supplies for PEOCs, CEOCs
- g) In collaboration with PDCs, NGOs, CBOs determine priorities for distribution taking into account vulnerable populations (aged/elderly, families with young children/persons with disabilities etc.)
- h) Coordinate distribution of supplies
- i) In collaboration with Ministry wrf Health /PDCs coordinate health/dietary support for shelters and affected population
- j) Coordinate arrangements for ensuring supply to vulnerable persons
- k) Coordinate all record keeping for storage, accessing and distribution of humanitarian assistance and generate report
- l) Coordinate debrief and After Action Report

16.4. ESG: ONE HEALTH

FUNCTION: MEDICAL CARE, MENTAL, PUBLIC AND ENVIRONMENTAL HEALTH

RESPONSIBILITY: PRIMARY

AGENCY: MIINISTRY WRF HEALTH

PREPAREDNESS

- a) In collaboration with PDCs coordinate review and update of all Health Sector Plans
- b) Coordinate preparedness audit of health facilities and resources including private facilities and prepare report for NDRMC
- c) In collaboration with Ministry wrf Social Security, UWI, ADRA, Red Cross coordinate review of psycho-social support capacity, determine need for refresher/training to adhere to required standards
- d) Organise training as needed
- e) Coordinate review of agreements with private facilities/practitioners for response assistance and update if required
- f) In collaboration with Jamaica Customs Agency and ODPEM review and update procedures for clearance of medical supplies

- g) In collaboration with Jamaica Customs Agency and ODPEM identify areas for temporary storage of medical supplies and pharmaceuticals including refrigeration
- h) In collaboration with ESG Lead Emergency Management identify transportation resources
- i) Compile list of pharmaceuticals and equipment requiring special permits for NEOC use
- j) In collaboration with JIS, ODPEM/PDCs review/develop templates for messaging

RESPONSE

- a) Coordinate national and parish medical response.
- b) Coordinate private sector inputs to response operations
- c) Coordinate private medical personnel support
- d) Coordinate inspection and approval of pharmaceuticals and medicines requested and received as donations
- e) Coordinate licensing for practice any incoming emergency medical personnel
- f) Coordinate island-wide surveillance of health parameters to detect and arrest situations that could develop into secondary disaster(s).
- g) Coordinate monitoring and health response to shelters
- h) Coordinate all mental, public and environmental health responses
- i) Coordinate health sector debrief and After Action Report

ESG: ONE HEALTH
FUNCTION: ANIMAL HEALTH AND WELFARE
RESPONSIBILITY: PRIMARY
AGENCY: MINISTRY wrf AGRICULTURE

PREPAREDNESS

- a) Coordinate review of response plans
- b) In collaboration with ODPEM/JIS coordinate development of messaging template for disposal of dead animals
- c) In collaboration with JIS/ODPEM coordinate development of messaging template for importation of veterinary help and animals for response
- d) In collaboration with JIS/ODPEM coordinate development of messaging template for owners of animals including livestock and pets
- e) In collaboration with JIS/ODPEM coordinate development of messaging template for human safety in in cases of cross-species transmission
- f) Coordinate arrangements for review of security of zoos, private collections to prevent escape of exotic species

- g) Coordinate arrangements for emergency importation of livestock feed
- h) Coordinate identification of feed storage sites
- i) Coordinate review of agreements for private sector assistance to response operations and update as necessary
- j) Coordinate identification of sites for mass burial of animals
- k) Coordinate arrangements for shelter of animals
- l) Coordinate review of arrangements for mass culls where unavoidable*
- m) Coordinate review of arrangements for emergency importation of drugs, vaccines
- n) Compile list of items requiring special permit/license for NEOC
- o) Coordinate training of specialist teams *

***Reminder: The plan takes an all-hazards approach which includes disease outbreak as well as natural hazards**

RESPONSE

- a) Coordinate veterinary care for affected animals including external assistance
- b) Coordinate arrangements for safe animal rescue
- c) Coordinate private sector support to response operations
- d) Coordinate requests for specialist animals to support response
- e) Coordinate arrangements for arrival and clearance of specialist animals and handlers
- f) Coordinate arrangements for arrival and licensing of veterinarians
- g) Coordinate and review requests for veterinary drugs and supplies
- h) Coordinate messaging for animal care and welfare and human safety
- i) Coordinate arrangements for supervision of mass culls, burials
- j) Coordinate importation of emergency drugs, vaccines, equipment, feed
- k) Coordinate messaging for human safety precautions in cases of cross-species transmission
- l) Coordinate debrief and After Action Report

ESG: ONE HEALTH
FUNCTION: PLANT HEALTH AND WELFARE
RESPONSIBILITY: PRIMARY
AGENCY: MINISTRY OF AGRICULTURE

PREPAREDNESS

- a) Coordinate review of national and parish plans and update as necessary
- b) Coordinate review of templates for messaging on management of plant diseases with JIS/ODPEM

- c) Coordinate review of templates for messaging on clearing/destruction of diseased plants with JIS/ODPEM
- d) Coordinate review of templates for messaging on sanitisation of farms with JIS/ODPEM
- e) Coordinate review of templates for messaging on rehabilitation of plants/crops with JIS/ODPEM
- f) Coordinate planning for disposal of plant debris with ODPEM/NSWMA/PDCs/NEPA/Forestry Dept.

RESPONSE

- a) Coordinate acquisition of equipment, supplies, replanting stocks as required
- b) Coordinate distribution of government assistance to farmers
- c) Coordinate replanting/rehabilitation programmes
- d) Coordinate messaging appropriate to situation and ensure technical accuracy
- e) Coordinate requests for specialist assistance
- f) Coordinate procedures for arrival and clearance for specialist personnel and equipment
- g) Compile list of chemicals requiring special permits/licenses for import for NEOC
- h) Coordinate disposal of plant waste including diseased plants in collaboration with PEOC/NEPA/NSWMA/ Forestry Dept.
- i) Coordinate safe and environmentally appropriate treatment of disease outbreaks
- j) Coordinate sectoral impact assessment, debrief and After Action Report

16.5. ESG: PARTNERSHIPS

FUNCTION: DONATIONS MANAGEMENT

RESPONSIBILITY: PRIMARY

AGENCY: Ministry wrf Foreign Affairs

PREPAREDNESS:

- a) Coordinate review of arrangements and messaging for appeals
- b) In collaboration with JCA, ODPEM review electronic tracking system for all donations
- c) Coordinate template development for messaging to Jamaican High Commissions
- d) Coordinate template development for messaging to foreign missions/development partners in Jamaica
- e) Coordinate arrangements for establishment of official transfer mechanisms

- f) In collaboration with JCA review arrangements for receipt and clearance of relief supplies
- g) In collaboration with JIS, ODPEM review messaging for dissemination by missions
- h) Review applicable financial regulations, brief missions

RESPONSE

- a) Coordinate external appeals messaging with NDRMC Executive/JIS/NEOC
- b) Coordinate establishing of accounts at Missions for accepting donations, tracking and receipt of pledges, donations and maintain current records and establish bank account(s) for donations
- c) Coordinate messaging across missions
- d) Keep NEOC updated on status of pledges and donations
- e) Liaise with ESG Lead Planning and Recovery on managing pledges and donations into recovery period
- f) Ensure closing of donations accounts at time agreed with NDRMC Executive
- g) Ensure smooth handover of records to Recovery Coordinator/Task Force
- h) In collaboration with STATIN/ Ministry wrf Finance, ensure completion of reports to donors and archiving of all records
- i) Coordinate debrief and After Action Report

ESG: PARTNERSHIPS

FUNCTION: VOLUNTARY ORGANISATIONS/NGO COORDINATION

RESPONSIBILITY: PRIMARY

AGENCY: ODPEM

PREPAREDNESS

- a) Coordinate review of agency plans
- b) Coordinate update of data bases and contact lists
- c) Coordinate review of community teams and identify needs (resources, training)
- d) In collaboration with parent organisations develop plan to address gaps

RESPONSE

- a) Coordinate review of tasks requiring input from Voluntary Organisations
- b) Coordinate in collaboration with NEOC assigning of tasks
- c) Coordinate with NEOC reporting arrangements for Voluntary Organisations
- d) Coordinate debrief and After Action Report

ESG: PARTNERSHIPS

FUNCTION: VOLUNTEER COORDINATION NON-GROUP

RESPONSIBILITY: PRIMARY

AGENCY: ODPEM

PREPAREDNESS

- a) Establish and manage the National DRM Volunteer Programme
- b) Coordinate terms of reference documentation, programmes and initiatives
- c) Facilitate development of MOUs/ Mutual Aid Agreements with volunteer groups/organisations
- d) Establish systems for coordinating volunteers

RESPONSE

- a) Facilitate oversight of volunteer coordination
- b) Manage spontaneous volunteers
- c) Prioritise the use and deployment of volunteers

ESG: PARTNERSHIPS

FUNCTION: PRIVATE SECTOR COORDINATION

RESPONSIBILITY: PRIMARY

AGENCY: MINISTRY WRF COMMERCE

PREPAREDNESS

- a) In collaboration with ESG Leads review all MOUs with private sector
- b) Coordinate review of private sector plans which intersect with agreements for disaster-related services
- c) Coordinate updating of contact lists
- d) Liaise with ESG Leads and coordinate compilation of all private sector resources available for response

RESPONSE

- a) Coordinate reach to private sector of alerts, warnings, briefings
- b) Liaise with ESG Leads and NEOC/PEOCs on management of private sector inputs to response
- c) Coordinate monitoring of record keeping for private sector inputs and compensation for services
- d) Coordinate debrief with private sector and compilation of AAR

ESG: PARTNERSHIPS
FUNCTION: COMMUNITY BASED ORGANISATIONS LIAISON
RESPONSIBILITY: PRIMARY
AGENCY: SOCIAL DEVELOPMENT COMMISSION

PREPAREDNESS

- a) Coordinate updating of data base of CBOs
- b) Coordinate updating of contact list
- c) Coordinate review and update of CBO disaster plans
- d) Establish means of communication for post-impact information flow
- e) Coordinate identification of persons who are willing to work post-impact and develop skills data base
- f) Establish means of identification for post-impact volunteers

RESPONSE

- a) Coordinate with PEOCs on reach of alerts, warnings and briefings
- b) Coordinate volunteer teams
- c) Coordinate assignment of teams with PEOC/NEOC
- d) Ensure coordination of information flow from volunteer teams to PEOC/NEOC
- e) Ensure safety briefings for volunteer teams
- f) Coordinate health and welfare aspects for volunteer teams
- g) Coordinate debrief and compilation of AAR

16.6. ESG: ENGINEERING

FUNCTION: PUBLIC WORKS AND INFRASTRUCTURE
RESPONSIBILITY: PRIMARY
AGENCY: NATIONAL WORKS AGENCY

PREPAREDNESS

- a) Coordinate review of national and parish plans
- b) Ensure structural/design plans for major infrastructure are accessible
- c) In collaboration with scientific and technical agencies and ODPEM review risk analysis of major infrastructure based on developed scenarios
- d) Coordinate mapping of alternative routes and traffic flows
- e) Coordinate identification of prepositioning points based on scenarios
- f) Coordinate review of agreements with private sector contractors/suppliers and update as necessary
- g) Coordinate review of contact lists for owners and operators of equipment
- h) Coordinate review of insurance policies for public infrastructure

- i) Coordinate review of criteria and templates for damage assessment, unsafe building placarding and demolition and update
- j) Review with JCF/JDF plans for security for equipment and personnel
- k) Coordinate review of priority listing for post-impact building inspections
- l) Coordinate review of legal requirements for demolition of private property
- m) Coordinate review of legal requirements for access to/through private property
- n) Coordinate review of arrangements for *emergency* access* to heavy equipment and operators (e.g for heavy rescue)

*Emergency access could be required in cases of building collapse, earthquakes or explosions

RESPONSE

- a) Coordinate immediate post-impact assessment of damage to infrastructure
- b) Coordinate immediate post-impact assessment of public buildings
- c) Coordinate closure of unsafe buildings/structures
- d) Coordinate messaging to public on unsafe and dangerous conditions
- e) Coordinate restriction of access, closure of roads, erection of signs
- f) Coordinate emergency repairs, erection of temporary bridges, restoration of emergency access
- g) Collaborate with NEOC, PDCs, NWSMA, NEPA, WRA on safe management and disposal of heavy debris
- h) Coordinate with NEOC safety of equipment and personnel

Reminder: Building debris may be contaminated with hazardous materials

ESG: **ENGINEERING**
FUNCTION: **BUILDING INSPECTION AND DEMOLITION**
RESPONSIBILITY: **PRIMARY**
AGENCY: **NATIONAL WORKS AGENCY**

PREPAREDNESS

- a) Liaise with Jamaica Fire Brigade/ Municipalities/ NEPA on availability of plans for large /high occupancy buildings which pose serious threat of multiple casualties in collapse (size/type to be determined). This would include schools, hospitals, public buildings.

- b) Ensure plans backed up in secondary location
- c) Coordinate compilation of base data on structures e.g. owners, expected occupancy
- d) Identify skills available for large building demolition
- e) Liaise with ESG lead Emergency Management/NEPA/NSWMA/Municipal Corporations on location of disposal sites
- f) Coordinate establishment of teams for post-impact building inspection

RESPONSE

- a) Coordinate rapid initial assessment of seriously damaged buildings and placard immediately
- b) Coordinate damage assessment of buildings
- c) Coordinate identification and placarding of damaged buildings/structures
- d) Liaise with private owners on management of potentially unsafe buildings
- e) Coordinate acquisition of specialised heavy equipment
- f) Coordinate demolition of unsafe and/or dangerous structures
- g) Coordinate inputs and assistance from private sector/specialists
- h) Coordinate all record keeping and databases on damaged buildings and other structures with PDCs//Municipal Corporations
- i) Coordinate debrief and After-Action Report

16.7. ESG: PLANNING AND RECOVERY

FUNCTION: IMPACT ASSESSMENT*

RESPONSIBILITY: PRIMARY

AGENCY: PLANNING INSTITUTE OF JAMAICA

PREPAREDNESS

- a) Coordinate review of post impact assessment methodology and update as necessary
- b) Review existing Core Team and Identify potential new team members
- c) Review and update base-line data
- d) Liaise with ministry wrf ICT and National Emergency Response GIS Team on acquisition of/access to drones, remote sensing, other technology for damage assessment
- e) Coordinate refresher training for impact analysis

RESPONSE

- a) Coordinate production of initial impact assessment report to inform early recovery planning
- b) Coordinate final impact assessment report

Impact assessment includes socio-economic, health, physical, environmental impacts and downstream effects

ESG: PLANNING AND RECOVERY

FUNCTION: DAMAGE ASSESSMENT

RESPONSIBILITY: PRIMARY

AGENCY: NATIONAL WORKS AGENCY

PREPAREDNESS

- a) Coordinate review of plans for damage assessment, building placarding and closure
- b) Identify potential damage assessment team members
- c) Coordinate collection of baseline data required for damage assessment from all sectors
- d) Liaise with ODPEM on acquisition of/access to drones, other technology for damage assessment
- e) Coordinate refresher training for damage assessment teams
- f) Coordinate with JIE, Academia, Institute of Architects availability of personnel to assist with damage assessment

RESPONSE

- a) Coordinate rapid damage assessment teams
- b) Collate initial damage assessment data and generate initial report within 72 hours of impact
- c) Coordinate private sector input to assessment
- d) Coordinate more detailed assessment and generate report
- e) Placard buildings identified as dangerous
- f) Coordinate with NEOC security for prevention of access to closed buildings
- g) Coordinate debrief and After Action Report

ESG: PLANNING AND RECOVERY

FUNCTION: DATA ANALYSIS AND MANAGEMENT

RESPONSIBILITY: PRIMARY

AGENCY: ODPEM

PREPAREDNESS

- a) Provide support to ESG Leads and agencies in review and update of all NDRM data bases

- b) Coordinate update/acquisition of new or additional software for maintaining data bases
- c) Support production/updates of risk analyses, risk maps, scenarios

RESPONSE

- a) Coordinate capture and collation of data from incident sites, PEOCs, NEOC
- b) Ensure flow of accurate data in support of NEOC and PEOCs
- c) Coordinate data inputs for operational maps
- d) Coordinate back-up and archiving of data, reports, maps
- e) Support retrieval of data as required

ESG: PLANNING AND RECOVERY
FUNCTION: DOCUMENTATION AND RECORDS
RESPONSIBILITY: PRIMARY
AGENCY: STATISTICAL INSTITUTE OF JAMAICA

PREPAREDNESS

- a) Establish and disseminate data standards
- b) Coordinate development and dissemination of templates, data gathering instruments
- c) Coordinate refresher training including for parish and community teams
- d) Coordinate review and update of reporting forms/templates for incident sites, parish and national EOCs
- e) Coordinate development/review of formats for After Action Reports

RESPONSE

- a) Coordinate data collection
- b) Coordinate compilation and quality assurance
- c) Ensure archiving of all data
- d) Ensure After Action Reports are captured and archived

ESG: PLANNING AND RECOVERY
FUNCTION: MITIGATION/RISK REDUCTION/CLIMATE CHANGE ADAPTATION (CCA)
RESPONSIBILITY: PRIMARY
AGENCY: ODPEM

PREPAREDNESS

- a) Coordinate discussions on how risk reduction can be integrated into response operations and ensure response plans reflect these safeguards
- b) Review plans related to integrating risk reduction (mitigation) CCA into rehabilitation and recovery planning and update
- c) Coordinate discussions on how climate mitigation can be integrated into recovery planning where appropriate

RESPONSE

- a) Support Emergency Management ESG in hazardous materials disposal, debris disposal, clean-up operations
- b) Coordinate review of operational priorities to ensure inclusion of risk reduction where appropriate
- c) Coordinate review of recovery and rehabilitation plans to ensure risk reduction and climate change adaptation and mitigation options are integrated
- d) Review NDRM Plan and ensure harmonisation with recovery plans

ESG: PLANNING AND RECOVERY

FUNCTION: ENVIRONMENTAL MANAGEMENT

RESPONSIBILITY: PRIMARY

AGENCY: NATIONAL ENVIRONMENT AND PLANNING AGENCY

PREPAREDNESS:

- a) Coordinate review of response and recovery plans and ensure environmental considerations are adequately included
- b) Coordinate acquisition of monitoring/measuring equipment
- c) Coordinate review/identification of waste/debris disposal sites in collaboration with ESG Lead Emergency Management, NSWMA, PDCs

RESPONSE

- a) Coordinate environmental surveillance programme and teams
- b) Compile and analyse environmental data and provide reports
- c) Coordinate monitoring of incident/response sites for environmental parameters
- d) Coordinate monitoring of shelters for environmental parameters
- e) Provide technical support to Emergency Management ESG
- f) Maintain ongoing environmental monitoring programmes
- g) Coordinate environmental aspects of response/clean-up operations
- h) Monitor management and disposal of hazardous materials and debris
- i) Coordinate debrief and After Action Report

ESG: PLANNING AND RECOVERY
FUNCTION: NATURAL RESOURCE MANAGEMENT
RESPONSIBILITY: PRIMARY
AGENCY: NATIONAL ENVIRONMENT AND PLANNING AGENCY

PREPAREDNESS

- a) Coordinate review of natural resources baseline data and update
- b) Coordinate review of natural resource valuations and update
- c) Coordinate review of sensitivity and risk maps and update
- d) Coordinate review of guidance for environmentally sensitive response e.g. for beach clean-up, hazardous materials clean-up
- e) Coordinate sensitisation of first responders as necessary

RESPONSE

- a) Provide guidance on environmentally friendly response operations
- b) Coordinate impact assessments

16.8. ESG: FINANCE AND ADMINISTRATION

FUNCTION: ADMINISTRATIVE SUPPORT
RESPONSIBILITY: PRIMARY
AGENCY: ODPEM

PREPAREDNESS

- a) Establish linkages with National Disaster Fund Committee and Finance and Planning Committee of NDRMC
- b) Review NEOC SOPs
- c) Review NEOC supplies, restock as required
- d) Ensure adequate IT support for NEOC
- e) Sensitise responders (field and EOCs) to necessity for family disaster plans

RESPONSE

- a) At call out coordinate transportation to NEOC as required
- b) Ensure shift arrangements include adequate rest periods (for NEOC and incident sites)
- c) Ensure adequate meals, refreshments available
- d) Coordinate medical support including stress management
- e) Ensure families of responders are provided for

ESG: FINANCE AND ADMINISTRATION
FUNCTION: EMERGENCY SPENDING/ CATASTROPHE FUNDS
MANAGEMENT/INSURANCE CLAIMS
RESPONSIBILITY: PRIMARY
AGENCY: MINISTRY WRF FINANCE

PREPAREDNESS August to March

- a) In collaboration with ODPEM, ESG Leads, PDCs identify any extra-budgetary finances required for response
- b) Establish pre-approved ceiling of expenditure for agencies and NEOC
- c) Establish procedures for access to additional financing if required
- d) Review CCRIF/other insurance and contingent credit facilities, catastrophe funds agreements and update as necessary

RESPONSE

- a) Coordinate access to finance for response operations as needed
- b) Coordinate requests for additional spending above pre-set limits
- c) Coordinate claims to CCRIF / insurance companies, catastrophe funds
- d) Coordinate drawdown of contingent funds
- e) Coordinate financial record keeping and reporting

ESG: FINANCE AND ADMINISTRATION
FUNCTION: FINANCIAL RECORD KEEPING
RESPONSIBILITY: PRIMARY
AGENCY: MINISTRY WRF FINANCE

PREPAREDNESS

- a) Review financial laws and policies with ESG Leads, NEOC Director, Municipal Corporations

RESPONSE

- a) In collaboration with NEOC Director/ PEOC Directors ensure management of finances is in keeping with financial laws and policies
- b) Ensure financial records are handed over once EOCs are deactivated

ESG: FINANCE AND ADMINISTRATION
FUNCTION: HEALTH AND WELFARE OF RESPONDERS/EOC STAFF
RESPONSIBILITY: PRIMARY

AGENCY: ODPEM

PREPAREDNESS

- a) Ensure responders /EOC staff have developed Family Disaster Plans
- b) Ensure plans are in place for medical care and psycho-social support for all responders/EOC staff

RESPONSE

- a) Ensure responders/ EOC staff who may have been affected by event have adequate time off to attend to personal needs
- b) Establish shift system to afford responders/EOC staff adequate time off
- c) Organise access to medical care where necessary
- d) Ensure access to relief supplies for affected responders/EOC staff

END OF SOPs

PART THREE

ANNEX 1: PLANS

National Disaster Action Plan for Jamaica available at:

http://www.abacusjamaica.com/wp-content/uploads/2010/08/National_Disaster_Plan_for_Jamaica.pdf

National Damage Assessment Plan available at:

https://www.odpem.org.jm/wp-content/uploads/2019/08/National_Damage_Assessment_Plan_for_Jamaica.pdf

Earthquake Response Plan available at:

https://www.odpem.org.jm/wp-content/uploads/2019/08/National_Earthquake_Response_Plan_for_Jamaica.pdf

National Fire Response Plan for Jamaica available at:

https://www.odpem.org.jm/wp-content/uploads/2019/08/National_Fire_Management_Plan_for_Jamaica.pdf

National Chemical Emergency Risk Management Plan available at:

<https://www.odpem.org.jm/wp-content/uploads/2019/09/GOJ-NCERM-Plan-Chemical-Response-Plan.pdf>

National Emergency Operations Centre SOPs available at:

https://www.odpem.org.jm/wp-content/uploads/2019/08/National_Disaster_Action_Plan_for_Jamaica_Part4.pdf

National Oil Spill Plan available at:

<http://www.racrempeitc.org/sites/default/files/Attachments/Jamaica%20National%20Oil%20Spill%20Plan%202014.pdf>

Covid-19 Resources and Protocols available at:

<https://www.moh.gov.jm/covid-19-resources-and-protocols/>

ANNEX 2: CALL OUT LIST

CONTACT LIST

NDRMC COMMITTEE

NAME	POST/AGENCY	NUMBER
Richard Thompson	Office of Disaster Preparedness and Emergency Management Director General(Ag)/ Chairman of Mitigation and Prevention Committee	(876) 904-9674
Stewart Beckford	Jamaica Fire Brigade Commissioner/ Chairman of Preparedness and Emergency Operations Committee	(876) 469-0869
Suzette Morris	Ministry of Labour and Social Security Director of Social Security/ Chairman of Humanitarian Assistance Committee	(876) 247-4013
Donna- Marie Rowe	Jamaica Information Service Chief Executive Officer/ Chairman of Public Information and Education Committee	(876) 580-4438
Wayne Henry	Planning Institute of Jamaica Director General/ Chairman of Recovery Planning Committee	(876) 920-5152
Nicole Dawkins-Wright	Ministry of Health Director of EDMSSB/ Chairman of Emergency Health Planning Committee	(876) 317-8496
Calvin Allen	Jamaica Constabulary Force Assistant Commissioner of Police/ Deputy Chairman of Preparedness and Emergency Operations Committee	(876) 872-1248
Yvonne Clarke	Jamaica Red Cross	(876) 832-6185

Director General/ Deputy Chairman of
Humanitarian Assistance Committee

Delmares White Office of Disaster Preparedness and (876) 399-1627
Emergency Management
Director of Information and training/
deputy Chairman of Public Information
and Education Committee

Varden Downer National Works Agency (876) 298-5487
Regional Implementation & Special
Projects/ Deputy Chairman of Recovery
Planning Committee

NATIONAL EMERGENCY OPERATIONS CENTRE

Rohan Johnson Jamaica Defence Force (876) 832-8976
Staff Officer- Operations

Kevin Haughton Jamaica Fire Brigade, Deputy (876) 469 0869
Commissioner, Operations

Sydney Innis Port Authority of Jamaica (876) 817-6256
Vice President -Security and Safety

Rudolph Airports Authority of Jamaica (876) 995-3502
McLaughlin Emergency Services Manager

Evan Thompson National Meteorological Service (876) 577-3611
Director

Arlene Lawrence Jamaica Customs Agency (876) 433-1542
Director OHS

Damian Townsend National Works Agency (876) 850-7510
Regional Manager

Karleen Black	Earthquake Unit Scientific Officer	(876) 796-3023
Patrick Watson	Ministry of Local Government and Rural Development Senior Director- Mitigation and Hazards	(876) 381-4797
Kevin Douglas	Jamaica Red Cross Manager- Emergency Services	(876) 456-1999/ 856-8663
Jacqueline Shepherd	Ministry of Labour and Social Security Manager	
Richard Troupe	Ministry of Education, Youth and Information Director- Safety and Security	(876) 468-3162
Ezra Whittock	Passport Immigration and Citizenship Agency Director- Immigration Services	(876) 469-1582
Major Morton Stewart	Jamaica Defence Force Operations Officer HQ	(876) 839-0089
Keith Rankin	Kingston Airport Limited Manager- Emergency Services	(876) 823-2552
David Allen	Ministry of Transport and Mining Director- Planning, Research and Evaluation	(876) 552-0185
Michael Wilson	Water Resource Authority Director- Planning, Research and Evaluation	(876) 552-0185
Omar Frith	Social Development Commission Deputy Director	(876) 834-4018
Bevene Martins Dickenson	Rural Agricultural Development Authority Manager	(876) 833-9555
Major Ifeanyi Felix Ezeh	The Salvation Army Assistent Coordinator	(876) 296-9968

Nakhle Hado	Food for the Poor Director	(876) 434-9922
Kurdell Campbell	Ministry of Health and Wellness Director	(876) 351-0969
Wenford Henry	Adventist Development and Relief Agency Director	(876) 427-0313

PARISH DISASTER COORDINATORS

Martina Medley	St. Thomas Municipal Corporation	876-367-2828(m) 876-487-2656(m) 876-982-2227/2276 (O)
	Parish Disaster Coordinator	martinamedley@gmail.com stthomasdm@gmail.com
Kavel Lewis	Manchester Municipal Corporation	876-503-2852(m) 876-962-2278-9(O)
	Parish Disaster Coordinator	laveklewis2010@hotmail.com
Miss Elanor Coombs	Clarendon Municipal Corporation	876-853-1407(m) 876-422-7202(m) 876-986-2216/2234/2403(O)
	Parish Disaster Coordinator	876-986-2903 -EOC eleanorcoombs3@gmail.com clarendonpc@mlge.gov.jm
Shanique Marsh	Portmore Municipal Corporation	876-878-5779 (m)876-998-2471(O)
	Parish Disaster Coordinator	pmcdisasterdept@gmail.com
Yasheka Jathan-Thompson	St. Catherine Municipal Corporation	876-561-9198 (m) 876-984-3111-2(O)
	Parish Disaster Coordinator	Yasheka_moya16@yahoo.com
Denise Lewis	Portland Municipal Council	876-841-0097(m)876-824-3486 (m)876-837-1986(m) 876-993-2665, 876-998-2238 (O)
	Parish Disaster Coordinator	denise.lewis@portland.gov.jm disasteroffice@yahoo.com
Miss Terry Forester	Kingston and St. Andrew Municipal Corporation	876-456-1183(m) 876-848-5009(m) 876-967-3329(o)
	Parish Disaster Coordinator	terry.forrester@ksamc.gov.jm ksacdisasterunit@gmail.com emergency.unit@cwjamaica.com*

Ornella Lewis	St. Elizabeth Parish Council Parish Disaster Coordinator	876-890-3343(m)876-634-0768(m) stemc.pdc@gmail.com Pdc_stelizabeth@yahoo.com
Hilma Tate	Westmoreland Parish Council Parish Disaster Coordinator	876-296-0129(m) 876-287-2397(m) 876-360-7686(O) tatehilma@yahoo.com wmcdisriskmanagement@gmail.com
Keneisha Stennett-Dunbar	Hanover Parish Council Parish Disaster Coordinator	876-564-0917(m) 876-956-9703(O) hanovermcdisaster@gmail.com
Tamoy Sinclair	St. James Municipal Corporation Parish Disaster Coordinator	876-393-2210(m) 876-347-3592(m) 876-971-1867(O) tamoysinclair@gmail.com tsinclair@stjamespc.gov.jm
Dion Hylton-Lewis	Trelawny Parish Council Parish Disaster Coordinator	876 843 0125(m) 876 954 4838(m) 876 617 3452(O) dhyltonlewis@trelawny.gov.jm dionl@trelawnypc.org
Alvin Clarke	St. Ann Parish Council Parish Disaster Coordinator	876-401-9566(m) 876-360-7460 (m) 876-972-1942 (O) disastercoord@gmail.com
Yolande Yankie	St. Mary Parish Council Parish Disaster Coordinator	876-577-8307 876-994-2178 stmarydisasterdepartment@gmail.com
Tamoy Sinclair	St. James Municipal Corporation Parish Disaster Coordinator	876-393-2210 (m) 876-347-3592 (m) 876-971-1867 (O) tamoysinclair@gmail.com tsinclair@stjamespc.gov.jm

UTILITIES

Heather Wallen- Bryan	FLOW Jamaica Director- Safety and Security	(876) 997-0807
Nigel Gordon	FLOW Jamaica Manager- Safety and Security	(876) 296-6661
Lodley Anderson	Digicel Jamaica	(876) 470-9820

Director of Security and Safety

Vince Plummer	Digicel Jamaica Director- Facilities and Technology Operations	(876) 470-7762
Adrian Grant	National Solid Waste Management Authority Regional Operations Manger	(876) 470-7432
Dominique McKnight	National Solid Waste Management Authority Director of Operations	(876) 552-1010
Kevin Kerr	National Water Commission Director of Operations	(876) 552-1010
Debbie Antone	National Water Commission Manager- Insurance	(876) 537-3883
Thessa Smith	Jamaica Public Service Manager- EHS	(876) 878-3700
George Kates	Jamaica Public Service Director- Disaster Coordination	(876) 878-3657
Stephen Shaw	National Works Agency Manager- Communications	(876)382-7797

ANNEX 3: NATIONAL RESOURCE LIST

Not available: To be inserted by ODPEM

PART FOUR - AUTHORITIES AND ADDITIONAL INFORMATION

ANNEX 1: AUTHORITIES

Legislation Relevant to the National Disaster Response Coordination Plan

National Disaster Risk Management Act 2015 available at: [https://www.preventionweb.net/english/professional/policies/v.php?id=59576#:~:text=Source:%20Jamaica%20-%20government%20This%20disaster%20risk%20management,and%20other%20connected%20matters.%20View%20document%20\[ext.%20link\]](https://www.preventionweb.net/english/professional/policies/v.php?id=59576#:~:text=Source:%20Jamaica%20-%20government%20This%20disaster%20risk%20management,and%20other%20connected%20matters.%20View%20document%20[ext.%20link])

Disaster Risk Management Act 2015 Enforcement Measures (Covid) available at <https://opm.gov.jm/category/disaster-risk-management-act/>

Public Health Act 1985 available at <https://moj.gov.jm/laws/public-health-act>

Natural Resources Conservation Authority Act available at <https://moj.gov.jm/laws/natural-resources-conservation-authority-act>

Water Resources Act available at <https://moj.gov.jm/sites/default/files/laws/Water%20Resources%20Act.pdf>

Flood Water Control Act available at <https://moj.gov.jm/laws/flood-water-control-act>

National Solid Waste Management Act available at <https://moj.gov.jm/laws/national-solid-waste-management-act>

Pesticides Act available at <https://moj.gov.jm/laws/pesticides-act>

Veterinary Act available at <https://moj.gov.jm/laws/veterinary-act>

Medical Act available at <https://moj.gov.jm/laws/medical-act>

Forest Act available at <https://moj.gov.jm/laws/forest-act>

Nuclear Safety and Radiation Protection Act available at http://www.ilo.org/dyn/natlex/natlex4.detail?p_isn=102692

Country Fires Act available at http://www.ilo.org/dyn/natlex/natlex4.detail?p_isn=102692

The Maritime Areas Act available at <https://moj.gov.jm/sites/default/files/laws/Maritime%20Areas%20Act.pdf>

Agreements/Documents Relevant to the Sub Regional Focal Point Coordination Plan

Agreement Establishing the Caribbean Disaster Emergency Management Agency available at https://cdema.org/cdema_agreement.pdf

Revised Treaty of Chaguaramas available at https://caricom.org/documents/4906-revised_treaty-text.pdf

Regional Comprehensive Strategy and Framework 2014-2024 available at https://www.cdema.org/CDM_Strategy_2014-2024.pdf

ANNEX 2: HAZARD ANALYSIS

Table A1: Synopsis of major hazards and associated vulnerabilities

Hazard	Type	Causality	Vulnerable Period	Vulnerable Areas
Floods	Flash Floods	Heavy downpours	April – June & Sept - October	Flood plains, interior valleys, low-lying coastal areas, filled-in wetlands
	Riverine Floods	Overflow of river onto flood plains	Apr – June & Sept – Oct.	Flood plains
	Inundations	Waves and surges entering low-lying coastal lands	Sept – October	Coastal plains
Drought	Hydro-meteorological	Prolonged period with little or no rainfall	Nov – Mar & mid Jun – mid Aug.	Southern plains, coastal areas of the north
Tropical Cyclone	Depressions, Storms & Hurricanes	Cyclonic mass of clouds with embedded thunderstorm	June - November	Country-wide
Earthquakes	Along faults	Movement of the earth’s tectonic plates/movement along faults	Year round	Country-wide
Tsunami	Coastal areas	Earthquake, landslides, undersea volcano	Year-round	Coastal communities within the 20m contour
Landslide	Steep unstable slopes	Movement of large mass of soils /rock down a slope	During period of heavy rains or earthquake	Mountainous areas of eastern parishes, Trelawny (south), St. James (south).
Epidemics	Flora/fauna	Bacteria, fungi, viruses, protozoans	Year-round	Island-wide
Fires	Bush/Landfills	Spontaneous combustion, lightning strike, human error	Dry season/ year round	Marshes, farmlands, forests. Landfill sites
	Technological	Petroleum & Petro-chemical, Propane Electrical short-circuits	Year-round	Homes, places of business
Crashes	Aircraft	Mechanical failure, pilot error, bird strike, bad weather	Rare	Island-wide
	Motor vehicle ¹¹	Driver error, mechanical failure	Very frequent	Roads
	Boats/ships	Bad weather, pilot’s error	Infrequent	Waterways

¹¹ Further information: <https://www.jngijamaica.com/online-fatal-crash-map/>

Table A1 cont'd: Synopsis of major hazards and associated vulnerabilities

N.B. Flooding events are possible during the cooler months December – February from Northers (Cold Fronts) induced rainfall. These impact mainly the northern section of the island from Portland in the east to Negril in the west.

Some of Jamaica's most important communication routes are located along fault lines e.g.

- a. Junction Main Road – Saint Mary to Kingston,
 - b. Bogwalk to Spanish Town main road
 - c. Long Hill – Reading to Anchovy in St. James.
- Some major settlements are in earthquake prone locations and could experience liquefaction – e.g. Kingston and New Kingston, Liguanea, Bogue and Montego Freeport area in St. James. Sections of Port Royal and areas around Kingston harbour have experienced liquefaction (1692,1907)
 - Older unreinforced masonry structures, including churches, great houses, heritage monuments are highly vulnerable to earthquakes and could sustain damage even with moderate intensity quakes.

Other Significant Hazards:

Epidemics

The Covid-19 global pandemic which started in 2020 is still in progress at the time of writing. As at May 01 2021 the Ministry of Health and Wellness reported 45,867 confirmed cases with 784 deaths with an additional 134 under investigation. Age range of deaths: 1 day to 108 yrs. Classification by sex: 25,683 females and 20,181 males. Recovered cases stood at 21,293. The Planning Institute of Jamaica is undertaking a socio-economic evaluation of the impact which has affected all sectors of the country. The International Monetary Fund has forecast a 5% contraction in the country's economy.

The island of Jamaica has had a checkered history of disasters triggered by pathogens i.e. bacteria, fungi and viruses. Whilst Jamaica has a public health system that is among the best in the Americas, there have been bouts of epidemic outbreaks.

- Prior to the 1960's communicable diseases such as Polio, Cholera, Mumps, Rubella, Tuberculosis and Measles ravaged the Jamaican populace.
- In the late 1960s, Dengue Fever, which is endemic, had significant impacts on the population.
- More recently, the viral diseases Chikungunya (CHIKV) and Zika (ZIKV) have exacted a heavy toll on many Jamaican and had significant a charge on the island's productivity and GDP.

Agriculture has not been spared from disease outbreaks that have ravaged the livelihood of many rural folks.

Table A2: Agriculture related impacts from pathogens

Disease	Pathogen	Vector	Flora/Fauna Affected	Year/Period	Impacts
Newcastle disease	Virus	Bodily discharge	Poultry/birds	1930s	Loss of poultry
Sugarcane Smut	Fungus	Airborne	Sugar cane	1960s & 70s	Reduced sugar production
Lethal Yellowing	Bacterium Phytoplasma	Plant hopper	Coconuts	1980s	Devastation of the economy of several parishes (Trelawny, St. Ann, St. Mary, Portland)
Beet Army Worm	Caterpillar	Small mottled willow moth	Escallion	Periodic	Widescale destruction of escallion crop in southern St. Elizabeth and Manchester.
Screwworm	Larvae of screw-worm fly	Adult new world screw-worm fly	Farm & domestic animals	Ongoing	Can result in death of infested animals
Citrus Greening	Bacteria	Psyllids	Citrus plants	First seen in 2002	Reduction in quality and quantity of fruit. Death of infected plants
Sigatoka	Fungus	Contact, wind & water	Banana	1970s-80s	Death of infected plants
Cocoa frosty pod rot	Fungus	Contact	Cocoa	Recent	Reduced yield

Fires (wild)

Several sections of the island are impacted annually by wild fires. These result in damage to forest, grasslands, marshes and farmlands. Some fires are ignited by lightning strikes, whilst others are due to spontaneous combustion and human error.

Parishes of St. Andrew, St. Thomas, Clarendon, Manchester, St. Elizabeth, Westmoreland, Hanover and Trelawny are the most impacted.

Technological Hazards

Fires & Explosions

Jamaica faces an array of technological hazards both in the terrestrial and marine environments. These arise from transportation, manufacturing, storage, use and disposal of household and industrial substances, electrical short-circuit and human errors.

Table A3: Significant past fires/explosion

Event	Location	Year	Causality	impacts
Petroleum Fire	Freeport Port, Montego Bay, ESSO Petrol Storage	1980	Ignition of Fuel tank	Reduced air quality, respiratory irritation
Petroleum Fire	Loading Rack, PETROJAM	1994	Static electricity	Person burnt to death
Run Fire	J. Wray & Nephew (JWN) bonded warehouse, Spanish Town Road	Sept 26, 1988,	Electrical short-circuit	Loss of stock
Explosion	Jamaica Flour Mills silos	1988	Electrical short-circuit	Collapse of silos, 2 killed
Explosion & Fire	Riu Reggae Hotel, Ironshore	2017	Ignition of paint solvent vapours	1 killed, 4 injured
Fire	West Indies Synthetic Company Limited (WISYNCO)	April 10, 2009 and May 26, 2016.	Ignition of stored stock	No deaths resulted
	Riverton Solid Waste Dump	Varies Major fire in 2015	Arson	Reduced visibility, respiratory tract irritations, Cost: J\$250 million to extinguish

Table A4: Types of facilities posing threat:

Facility	Hazards	Risk
Bauxite & Aluminium Plants	Dust, Caustic fumes Leachates	Ground-water contamination, air pollution, corrosion of roofs etc. respiratory diseases
Cement Plant	Particulate matter,	Air pollution
Petroleum Refineries	Sulphur dioxide gas, soot, flammable substances	Air pollution, explosions
Electric Power Generation	Large voltages & current, flammable & Explosive substances	Explosions & fires, Electric burns/electrocution

Rum Distilleries	Flammable substance	Explosions & Fires
Paint and Solvent manufacturing	Flammable & Explosive substances	Explosions & Fires
Flour and Feed Mills	Fine particulate matter	Explosions & Fires
Fertilize Plants	Explosive substances	Explosions & Fires
Storage of Mineral Acids and Caustic Alkalis	Corrosive chemicals	Explosions & Fires, chemical burns
Manufacture of commercial gases Ammonia, Oxygen, ethyne (acetylene) and Chlorine	Flammable and toxic gases	Explosions & Fires
Storage and use of Chlorine gas	Chlorine gas	Chlorine inhalation
LPG & LNG Plants	Flammable substance	Explosions & Fires
Large civil engineering Projects		Building collapse
Mines	Debris, dust, unstable soil mounds,	Debris flow into water bodies, landslides, air pollution

Table A4 Cont'd. Types of facilities posing threat

ANNEX 3: ELEMENTS OF A PROPOSED NATIONAL ALERT SYSTEM

The National Disaster Risk Management Act 2015 stipulates the existence of a national alert system (NAS). Part VIII, Section 34 (1) of the Act states inter alia:

“There shall be established.... a National Alert System for Jamaica”

Further, Section 34 (2) states that the national alert system shall consist of any one or more of the following:

- (a) A national Emergency Broadcast System*
- (b) A National Siren System*
- (c) Any other system approved by the Director General of the ODPEM.*

In keeping with the tenets of the Disaster Risk Management Act (2015), the alert system for Jamaica will have the following elements:

1. A national emergency broadcast system (NEBS) that outlines the pathway for message generation and dissemination to the public.
2. A national early warning system (NEWS) designed to provide the public with timely information on pending emergency situations or following the occurrence of a disaster.
3. National alarm or siren system that will trigger specific pre-destined actions for populations residing or working within zones with specific hazard exposure.

N.B. The three outlined elements are interrelated. Whilst elements 1 & 2 are universal for all alerts, the third element is applicable to specific locations and hazards.

National Emergency Broadcast System (NEBS)

There shall be established for the island of Jamaica and its territorial seas a national emergency broadcast system for the purpose of express, effective, and efficient disseminating of information to all publics on impending disasters or where an emergency/disaster has occurred. The ODPEM shall have the responsibility to ensure that the system is established and operational. The system will primarily be guided by protocols established by the national Public Information Committee of the National Disaster Risk Management Council. When the NEOC is activated the responsibility for public information will be that of the public information group inside the NEOC.

Jamaica’s national emergency broadcast system shall have the following features:

- Settled protocol for relaying emergency information generated by the *“monitoring entities”* to the *“broadcast entities”*. This shall include procedures for temporary suspension/interruption of regular programming to accommodate emergency broadcast.
- Recorded *“National Alert Tone”* to precede all emergency messages broadcast via electronic mass media i.e. radio, television and cable networks.
- SMS text message to mobile device users by commercial carriers.
- Social media messages utilising: WhatsApp, Instagram, Facebook and Twitter.

Modes for Communicating Information to Public

The following modes are to be used for disseminating information to the public on pending disaster or where disaster has occurred:

- Written – example SMS text/news bulleting in news papers
- Verbal – public service release read by radio/TV presenter/VHF/HF radio and town crier
- Visual – live or recorded short video which may include graphics; Electronic Bill-board.

Information Channels

Communication may be done either via direct face –to-face way or mediated.

The following Information channels shall be employed as deemed fit and proper by the national public information committee.

- National and Regional Commercial Radio and Television Stations
- National and Regional newspapers
- National and Regional cable networks
- National Public Broadcasting Services
- Commercial Telephony and Internet Data Carriers
- HF/VHF/UHF radios operated in the marine environment and by emergency responders.
- Police/private contractors deployed as town criers.
- ODPEM and JIS websites and social media pages.

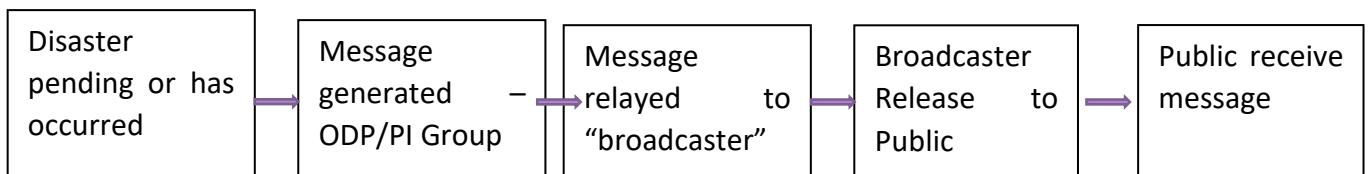
N.B. Communication must target the various publics. Thus messages MUST be tailored.

Types of Messages to be Broadcast

- Watch - message designed to inform the public of the possibility of a hazard impacting the country of a specific section of the island
- Warning - message designed to inform the public of imminent impacts from hazard
- Order - message designed to mobilize the populace concerned to take specific actions within a specific timeframe.

N. B. The national public information committee/group shall establish agreed format for the different types of messages to be broadcast to the public.

Fig. A1: Emergency Message Flow Schematics.



Key: ODPEM =Office of Disaster Preparedness and Emergency Management

National Early Warning System

Despite rapid and spectacular advances in technology and social advances that have improved the social arrangements of billions of the world's population, forecasting the timing and magnitude of impacts from most hazards remain challenges to risk and disaster managers and populations in general. The types of hazards (natural and anthropogenic) to which Jamaica is vulnerable present a paradigm with varying levels of predictability, particularly in the context of being able to alert the populace with enough lead time to facilitate preparation for such events.

The ability to issue warnings is a critical element of disaster management. Indeed, evidence from both local and international events has demonstrated that improved warning systems have contributed to saving of many lives. Indeed, in the last two decades, Jamaica has put in place a decent early warning system for the hydro-meteorological events of flooding, droughts and tropical cyclones. However, much remains to be accomplished. To this end, early warning is a central component of the national disaster response coordination plan.

An early warning system is defined as:

“An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events” (UNISDR Feb 2017).

Given the many hazards that can adversely impact Jamaica, the early warning system that shall be adopted is a multi-hazard system. In keeping with international best practices, and the UNISDR Sendai Framework's Terminologies and Targets, the national multi-hazard early warning systems shall consist of four **interrelated** and **interdependent** components, vis-à-vis:

1. Comprehensive knowledge of Jamaica's hazard, vulnerability and risk;
2. Competent personnel and the requisite tools/equipment for detection, monitoring, analysis and forecasting of the hazards and possible consequences;
3. Mechanism and protocols for the dissemination and communication, by an official source of: authoritative, timely, accurate and actionable warnings and associated information on likelihood and impact; and
4. Readiness at personal, community, parish and national levels to respond to the warnings received.

Features of Jamaica's NEWS

- People centered – that is the system addresses all publics. Thus, each segment of the population, including those with special needs is catered for.

- Maintenance of components: The ODPEM shall ensure that there is regular testing and evaluation of the system to ensure functionality and efficacy of all components.
- Regular monitoring and evaluation of outputs to enable improvements. The ODPEM shall design instruments for capturing the publics' interactions with the system.
- Given, the reality that no single entity in Jamaica has all the necessary human and non-human capacity to effect all four components, the coordinating agency (ODPEM) shall ensure the requisite protocols and modalities are worked out, agreed on, documented and tested through: protocol development workshops, simulation exercises and real incidents scenarios.

The ODPEM as the national coordinating agency, in collaborations with other MDA, must ensure the establishment of adequate early warning systems (EWS), and the dissemination of clear and concise information for alerting/warning the various publics on:

- Impending hazards where monitoring and early warning is possible.
- Potentials for secondary disasters following an impact from an adverse event.

N.B. All agencies with responsibility for a particular hazard specific "NEWS" MUST ensure that the system is maintained and upgraded periodically to incorporate new technologies and thinking.

Schematics of the Warning Processes

Warnings have three essential components: scientific and technical, administrative, and social (Figure F). The absence or ineffectiveness of any of them renders the warning system inoperable.

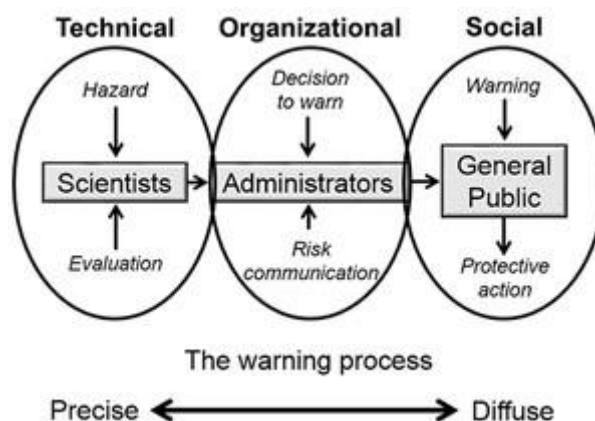


Fig. A2 The components of the warning process.

Scientific/Technical Phase:

- Specialised agencies/departments (Met Office, Earthquake Unit, NEPA, MOH, WRA) with the requisite expertise and tools will *monitor, collect, analyse and evaluate* scientific information on an impending hazard or unfolding event.
- These agencies will generate releases to ODPEM.
- Where the nature of the hazard is such that the lag time for warning is pressing, the agency shall issue a preliminary warning simultaneously with the release to the ODPEM.

Organizational Phase

- ODPEM will monitor and collect information from technical/scientific agencies.
- Determine the need and extent of release to the public.
- Formulate messages for different publics and issue advisory/warning or order.

Social Phase

- ODPEM makes release through mass & social media utilizing the protocols under the national emergency broadcast system (NEBS).
- Relevant Alarm is triggered. This may include the national sirens system, installed in special zones of vulnerability.

Features of Message that Shall be Conveyed to the Various Publics:

The following features are to be included in any official releases to the Jamaican public:

- Source : who is sending the message
- Hazard : the threat and its impacts
- Location : the boundaries of the area impacted/to be impacted
- Guidance : precautions as to:
 - ✓ protective action(s) to take,
 - ✓ when to take such action(s),
 - ✓ how to carry out the action(s) and how doing it reduces impacts.
- Duration : Expiration time when the alert/warning expires and/or new information will be received.

(Adopted from Dr. Dennis Mileti, Professor Emeritus University of Colorado Boulder).