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Message from the Prime Minister of Grenada

As Minister with responsibility for Disaster Management, I wish to place on record my profound gratitude to all those who volunteered their time and effort leading to the creation of this five year Country Work Programme (CWP). While widespread participation in completing such an important plan of action was paramount, involvement by all in the implementation phase is what will make a world of difference.

Brothers and sisters, our ultimate goal as a people, is to be eternally vigilant in fostering a culture of Disaster Risk Reduction. The Country Work Programme is the blueprint for renewing this important campaign and your participation is intrinsically linked to this mission. Support for the various activities and projects associated with the work plan would ensure the short term and medium term goals are achieved.

I am pleased to note that the plan does not just cater for the Hurricane season, but disasters in general, and it focuses on the full cycle of mitigation, preparedness, response and recovery.

The National Disaster Management Agency with support from all the stakeholders, including coordinators and committee members of district committees, will have a challenging but rewarding role to play in driving this five year work plan. I pledge my support for this action plan and would be keen to follow the reports of its achievements as we continue to put measures in place to continue to safeguard our country from setbacks which can be caused by circumstances. We have built back better following the ravages of Hurricane Ivan in 2004, and as a nation, we must continue to strengthen national resilience in the face of potential natural disasters.

I note that one of the prioritized outcomes of the CWP is improved capacity for managing emergency response. This is a goal we ought not to take lightly and the three Emergency Operation Centres (EOCs), built, equipped and handed to us by the US government, will go a long way in helping us to achieve this goal.

Another prioritized outcome to note is enhanced state of readiness for reducing the risk associated with all hazards. I commend NaDMA for continuing to beef up its Public Education Campaign in this direction, through workshops with the private and public sector, as well as the annual Primary School Quiz in disaster management, which has been making an impact. NaDMA’s CDM competition, engaging secondary school students with the knowledge of disaster risk reduction, has also been making an impact and is equally crucial in fostering this new disaster management culture.

I wish to make the point that the CWP and its goals and outputs are not a creation which is isolated from the state of our economy. As you know, we have been turning around our economy through a multi-faced approach and backed by a three-year IMF Structural Adjustment Programme. We cannot afford for any man-made or any act of nature to turn back our economic progress. This is why we must do all that is in our power to do to ensure that we safeguard our shores, our resources and our livelihood.

My friends, a new culture of Disaster Risk Reduction is being promoted by way of the CWP five year plan, and the clarion call is for participation by all in the national interest.

I thank you.

Dr. the Rt. Hon. Keith C. Mitchell
Prime Minister
Message from National Disaster Coordinator

The National Disaster Management Agency (NaDMA), in its efforts to build a culture of safety amongst the general population continues to engage partners in disaster risk reduction activities.

The Agency aligns its policies, plans and programs to the Regional Comprehensive Disaster Management (CDM) Strategy (2014-2024), and the newly established Sendai Framework (2015-2030). The CDM Strategy emphasizes the management of all hazards, through all phases of the disaster management cycle, by all people. The Sendai Framework focuses on the substantial reduction of disaster risk and losses in lives, livelihoods and health and the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.

NaDMA recognizes the importance of mainstreaming Comprehensive Disaster Management (CDM), and so the Agency continues to partner with all stakeholders to ensure enhanced national resilience through Community Awareness and Participation, along with Stakeholder Cooperation and collaboration.

This five-year Country Work Programme (CWP) sets out to capture the priorities of the Agency. The document was developed using a consultative mechanism, driven by the Results Based Management (RBM) approach. The Work Program 2015 – 2019, aims to empower the nation to manage all disaster risks in the long term, by developing a culture of safety through the engagement of all sectors of society in disaster risk reduction activities. It also aims to improve national capacity for emergency response, and strengthen and reform recovery, rehabilitation and reconstruction capacity.

NaDMA looks forward to collaborating with all stakeholders as it forges towards the strengthening of national resilience. The Agency will ensure enhanced collaboration and cooperation in achieving the outcomes and outputs as outlined in the CWP. Despite the limited resources available, NaDMA will continue to build synergies with developmental partners, locally, regionally and internationally towards full implementation of the CWP.

Terence Walters
National Disaster Coordinator
Executive Summary

Grenada's five-year Country Work Programme (CWP) is results-based and establishes short, medium and long term results (i.e. Outputs, Outcomes and Impact respectively) as agreed by stakeholders. The CWP was developed through a consultative process that was initiated in May 2014. This CWP covers the period 2015-2019 and uses a Comprehensive Disaster Management (CDM) approach with activities across all phases of the disaster management cycle i.e. mitigation, preparedness, response and recovery. Climate change and gender considerations have been mainstreamed into the work programme and are reflected in the results and activities.

The results of the CWP were developed based on a highly participatory process. Emphasis was placed on identifying gaps in the national capacity and institutional arrangements for addressing Grenada's vulnerability its priority hazards. The long term result of the CWP or impact is "Strengthened national resilience through fostering a Disaster Risk Reduction culture." This Impact will be realized through the achievement of four (4) medium term results or Outcomes, twenty-eight (28) short term results or Outputs and the completion of a variety of broad activities/projects¹. The prioritized Outcomes are as follows:

(a) **Outcome 1**: Improved capacity to reduce risks to all hazards

(b) **Outcome 2**: Enhanced state of readiness for reducing the risks associated with all hazards

(c) **Outcome 3**: Improved capacity for managing emergency response

(d) **Outcome 4**: Strengthened recovery, reconstruction and rehabilitation capacities

NaDMA under the auspices of the Ministry for National Security, Public Administration, Disaster Management, Home Affairs, Information & Implementation and the National Emergency Advisory Council (NEAC) has main responsibility for driving, as well as monitoring and reporting on the achievements of this CWP. However, the CDM approach has created the opportunity for national priority activities to prioritized nationally, by sectors, by agencies and remain focus on activities at the national and community levels.

It is important to note, however, that the Plan of Action was finalized in recognition of (a) the existing limited technical and programming capacities of the NaDMA, (b) the persistence of the mostly response role of NEAC and (c) the inadequate national networks and institutional arrangements to deliver a full CDM mandate in Grenada.

In spite of the above limitations, the CWP 2015 -2019 incorporates the objectives of three (3) relevant strategies. Namely:


(b) The Regional Climate Change Strategy


The linkages between these strategies and the CWP 2015 -2019 are illustrated in Figure 1 below and detailed at Section E of the document.

¹ See Figure ¹: Logic Model Summary
The Performance Monitoring Framework (PMF) at Section E sets out the means by which the CWP will be monitored and reported on for its duration. Measures of progress or Performance Indicators as well end of programme Targets have been developed for each CWP Outcome and Output result. Monitoring and reporting of achievements will be based on the documentation of progress towards attainment of these targets and any associated tangible change that occur. Part of monitoring will require the adjustments of implementation strategies in a timely manner to address impediments to the achievement of set targets.

It must be noted that the CWP performance may be negatively impacted by the four major risks including:

(a) Further reduction of the limited technical and programming capacity of NaDMA
(b) Reduction of the support (financial and championing) provided to NaDMA from Central Government
(c) Reduction of the support provided by CDEMA to NaDMA
(d) A major disaster event which requires prolonged response action from the NaDMA.

These risks can be most effectively managed by preserving or enhancing the existing conditions which have been determined as basic requirements for achieving satisfactory CDM results. The planned results of the CWP can also be attained through central government’s championing of the following:

(a) Enshrining of an agreed national CDM approach which includes the concretization of disaster risk management and reduction responsibilities in enacted CDM Legislation and Policy.
(b) Integrating into all development processes the relevant disaster risk reduction and climate change mitigation measures.
(c) Strengthening of NaDMA staff complement as guided by the model National Disaster Office organizational structure developed by CDEMA.

(d) Broadening of the role of NEAC from mainly response to a more holistic CDM function.

(e) Rationalizing and streamlining all of government’s actors/actions which contribute to reduction of vulnerability to natural and man-made hazards.

(f) Supporting the exercising and review of the NEMP on an annual basis.

(g) Committing to building community disaster management and community resilience through the enhancement of existing national community governance and implementation structures and systems.
Logic Model/Results Chain

Impact: Strengthened national resilience through fostering a Disaster Risk Reduction culture

Outcome 1: Improved capacity to reduce risks to all hazards

Output 1.1  CDM model legislation and policy reviewed, enacted and adopted respectively
Output 1.2  Budgetary allocation increased for routine operations at NaDMA
Output 1.3  NaDMA (Secretariat) strengthened
Output 1.4  CDM Programme in schools strengthened
Output 1.5  Projects for risk mitigation implemented
Output 1.6  CDM Public Information and Education (PIE) programme strengthened
Output 1.7  Hazard and Vulnerability Assessment (HVA) processes integrated into a national development planning
Output 1.8  Water availability and its sustainable use improved
Output 1.9  Land and sea management policy and regulatory frameworks finalized and enforced

Outcome 2: Enhanced state of readiness for reducing the risks associated with all hazards

Output 2.1  National capacity for sharing disaster-related information strengthened
Output 2.2  Multi-hazard Early warning systems at the local and national levels improved
Output 2.3  Private sector support for preparedness and response activities improved
Output 2.4  Disaster Management Plans for Ministries prepared, approved and exercised
Output 2.5  Media personnel awareness and understanding of Comprehensive Disaster Management (CDM) enhanced
Output 2.6  National evacuation plan for multiple hazards developed and implemented.
Output 2.7  National disaster management plan for multiple hazards enhanced
Output 2.8  National security systems enhanced including preparedness to counter terrorism
### Outcome 3: Improved capacity for managing emergency response

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<th>Output 3.1</th>
<th>Emergency facilities upgraded to facilitate vulnerable groups</th>
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<tbody>
<tr>
<td>Output 3.2</td>
<td>Initial Damage Assessment (IDA) teams established and trained at the local level</td>
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<tr>
<td>Output 3.3</td>
<td>National Damage Assessment and Needs Analysis (DANA) team capacity strengthened</td>
</tr>
<tr>
<td>Output 3.4</td>
<td>First Responders trained in Disaster Risk Management (DRM) related areas</td>
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<tr>
<td>Output 3.5</td>
<td>District Disaster Management Committees strengthened</td>
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<tr>
<td>Output 3.6</td>
<td>National Volunteer Service established</td>
</tr>
<tr>
<td>Output 3.7</td>
<td>Register of key personnel, equipment and supplies established and maintained</td>
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</tbody>
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<thead>
<tr>
<th>Output 4.1</th>
<th>Multi-hazard National Recovery Policy and Plan Developed</th>
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<tbody>
<tr>
<td>Output 4.2</td>
<td>Livelihood restoration programme established</td>
</tr>
<tr>
<td>Output 4.3</td>
<td>Psycho-social support programs established</td>
</tr>
<tr>
<td>Output 4.4</td>
<td>Pricing protocol for post-disaster established</td>
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Section A: Outcome 1 - Improved capacity to reduce risks to all hazards

Output 1.1 - CDM model legislation and policy reviewed, enacted and adopted respectively.
The development of a National CDM Policy will ensure that there is a long term policy framework for implementing CDM in Grenada, which is reinforced by the commitment of the political directorate. The specific activities are to:

(a) Complete proposal for accessing adaptation grants from CDEMA CU
(b) Hire consultant to lead the adaptation of the model policy and legislation
(c) Liaise with the legal unit in the revision of the model CDM legislation and regulations to suit Grenada's context
(d) Convene stakeholder meeting for the formulation of the policy paper
(e) Finalize CDM policy and legislation for Grenada
(f) Sensitize the public on the new policy and legal frameworks

Output 1.2 - Budgetary allocation increased for routine operations at NaDMA²
NaDMA faces the persistent challenge of limited technical capacity and therefore will need to restructure the Agency in such a way to be able to fulfill the expanded mandate of CDM. As such for the next five years the following activities have been planned:

(a) Commission a study to review the current organizational structure at NaDMA
(b) Review the CDEMA model organization structures for NDO
(c) Adapt a suitable model for NaDMA
(d) Identify the minimum staff needed to fulfil the mandate of the agency as articulated in the national CDM policy and legislation
(e) Lobby restructuring of the agency to fill positions and the associated budget increase.

Output 1.3 - NaDMA (Secretariat) strengthened
NaDMA will also benefit with deepening the capacity and knowledge of its staff in order to adequately meet its workload requirements. The steps to ensuring adequate and appropriate training are set as:

(a) Identify the training needs of the NaDMA secretariat in view of their mandate (policy, legislation)
(b) Identify funding sources to support the training needs
(c) Undertake and evaluate training

² Routine operations do not include response and recovery
**Output 1.4 - CDM Programme in schools strengthened.**

NaDMA has a School Programme which targets the youth in order to build the resilience of communities and create a culture of safety. In order to concretize the program and make it annual feature NaDMA will:

(a) Adopt model approach to developing and implementing a comprehensive programme of safety and risk-reduction in schools, via the CDEMA School Safety Programme

(b) Revise the CDM youth champion manual

(c) Promote and sustain the CDM youth champion and primary school quiz programme with support from the Ministry of Education and the Private Sector

(d) Mobilize funds to support the school initiatives. Target private sector

**Output 1.5 - Projects for risk mitigation implemented.**

In recognition of the importance of mitigation as part of the Disaster Risk Reduction strategy of Grenada, several capital projects will be undertaken through the following set of activities:

(a) Design and implement sea defence mechanisms.

(b) Construct artificial reefs, and moorings that meet standards in targeted areas

(c) Develop mechanisms for the management of bush overgrowth in the bush-fire-prone areas

(d) Implement, monitor and maintain flood mitigation programme in communities prone to flooding, e.g. St. Mark’s Project (Flood Mitigation Project)

(e) Using the landslide hazard maps developed for Grenada, promote the construction and/or maintenance of proper drainage systems in order to reduce likelihood of landslide occurrence, and reduce impact of flood events

(f) Identify and source funding to implement the risk mitigation projects.

**Output 1.6 - CDM Public Information and Education (PIE) programme strengthened.**

Public education and information are effective strategies particularly in the preparedness phase of the DM spectrum. Public education can bring dramatic changes in behavior which is an important requirement for developing a culture of safety in Grenada. The following actions will be undertaken 2015-2019:

(a) Public education and awareness programmes on ecosystem friendly agricultural practices to build resilience. Eg. Promote the practice of terracing throughout the farming community to reduce the likelihood of landslide

(b) Public education and awareness programmes on all hazards including disease outbreaks, heat stress conditions and fire-prevention

(c) Implementation of NaDMA tsunami smart sensitization programmes

**Output 1.7 - Hazard and Vulnerability Assessment (HVA) processes integrated into a national development planning**

Grenada, like many countries, can ill afford to address the costs of disasters after they happen and recognize that the most meaningful steps in reducing the impacts of hazards are taken in the development process. Therefore during the CWP period the focus these activities:
(a) Mapping of hotspot areas of bush fire susceptibility, oil spill,
(b) Conduct analysis and mapping of tsunami, storm surge hazards via bathymetric studies and inundation mapping

Output 1.8 - Water availability and its sustainable use improved
Water is vital to sustain life but pipe-borne water is available in limited supply in some parts of country. As part of the climate change adaptation strategy and to combat the impact of climate related hazards such as drought, Grenada needs to increase the capacity and reach of its water supply system through the activities below:

(a) Increase research into water availability, user issues and water quality
(b) Promote the construction of adequate water storage facilities at the household level, primarily during drought periods
(c) Promote water conservation strategies (re-use, recycle) through public education and awareness programmes.
(d) Explore groundwater reserves in areas that will promote reforestation of watershed areas
(e) Conduct cost benefit analysis of increasing % of ground water use and ecosystem impacts
(f) Implement solar-powered desalination plant in Carriacou and Petite Martinique.
(g) Improve access to alternative water sources to support emergency response e.g. bush fires, house fires

Output 1.9 - Land and sea management policy and regulatory frameworks finalized and enforced
Land use planning is a potentially powerful mitigation tool. Regulations and frameworks can also minimize vulnerabilities and limit lives lost. Specific activities towards establishing policies and frameworks are:

(a) Develop and enforce the national land use policy.
(b) Enact revised planning bill to support the existing planning regulations
(c) Sensitize and enforce revised Building Codes, inclusive of the fire code.
(d) Enforce laws against the practice of bush burning during dry season
(e) ICZM Policy finalized (GIZ Project)
(f) Ratify the International Maritime Convention for the Prevention of Pollution from Ships (MARPOL)
Outcome 1: Improved capacity to reduce risks to all hazards

**Output 1.1**
CDM model legislation and policy reviewed, enacted and adopted

**Output 1.2**
Budgetary allocation increased for routine operations at NaDMA

**Output 1.3**
NaDMA (secretariat) strengthened

### BROAD ACTIVITIES/PROJECTS

- Complete proposal for accessing adaptation grants from CDEMA CU
- Hire consultant to lead the adaptation of the model policy and legislation
- Liaise with the legal unit in the revision of the model CDM legislation and regulations to suit Grenada’s context
- Convene stakeholder meeting for the formulation of the policy paper
- Finalize CDM policy and legislation for Grenada
- Sensitize the public on the new policy and legal frameworks

- Commission a study to review the current organizational structure at NaDMA
- Review the CDEMA model organization structures for NDO
- Adapt a suitable model for NaDMA
- Identify the minimum staff needed to fulfil the mandate of the agency as articulated in the national CDM policy and legislation
- Lobby restructuring of the agency to fill positions and the associated budget increase

- Identify the training needs of the NaDMA secretariat in view of their mandate (policy, legislation)
- Identify funding sources to support the training needs
- Undertake and evaluate training
Outcome 1 (Continued): Improved capacity to reduce risks to all hazards

**Output 1.4**
CDM Programme in schools strengthened

- Adopt model approach to developing and implementing a comprehensive programme of safety and risk-reduction in schools, via the CDEMA School Safety Programme
- Revise the CDM youth champion manual
- Promote and sustain the CDM youth champion and primary school quiz programme with support from the Ministry of Education and the Private Sector
- Mobilize funds to support the school initiatives. Target private sector

**Output 1.5**
Projects for risk mitigation implemented

- Design and implement sea defence mechanisms
- Construct artificial reefs, and moorings that meet standards in targeted areas
- Develop mechanisms for the management of bush overgrowth in the bush-fire-prone areas
- Implement, monitor and maintain flood mitigation programme in communities prone to flooding, e.g. St. Mark’s Project (Flood Mitigation Project)
- Using the landslide hazard maps developed for Grenada, promote the construction and/or maintenance of proper drainage systems in order to reduce likelihood of landslide occurrence, and reduce impact of flood events
  - Identify and source funding to implement the risk mitigation projects

**Output 1.6**
CDM Public Information and Education (PIE) programme

- Public education and awareness programmes on ecosystem friendly agricultural practices to build resilience. Eg. Promote the practice of terracing throughout the farming community to reduce the likelihood of landslide
- Public education and awareness programmes on disease outbreaks, heat stress conditions and fire-prevention
- Implementation of NaDMA tsunami smart sensitization programmes
- Public education programme on all hazards
Outcome 1 (Continued): Improved capacity to reduce risks to all hazards

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<th>Output 1.7</th>
<th>Output 1.8</th>
<th>Output 1.9</th>
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<tr>
<td>Hazard and Vulnerability Assessment (HVA) processes integrated into a national</td>
<td>Water availability and its sustainable use improved</td>
<td>Land and sea management policy and regulatory frameworks finalized and enforce</td>
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**BROAD ACTIVITIES/PROJECTS**

- Mapping of hotspot areas of bush fire susceptibility, oil spill
- Conduct analysis and mapping of tsunami, storm surge hazards via bathymetric studies and inundation mapping
- Increase research into water availability, user issues and water quality
- Promote the construction of adequate water storage facilities at the household level, primarily during drought periods
- Promote water conservation strategies (re-use, recycle) through public education and awareness programmes.
- Explore groundwater reserves in areas that will promote reforestation of watershed areas
- Conduct cost benefit analysis of increasing % of ground water use and ecosystem impacts
- Implement solar-powered desalination plant in Carriacou and Petite Martinique.
- Improve access to alternative water sources to support emergency response e.g. bush fires, house fires
- Develop and enforce the national land use policy.
- Enact revised planning bill to support the existing planning regulations
- Sensitize and enforce revised Building Codes, inclusive of the fire code.
- Enforce laws against the practice of bush burning during dry season
- CZM Policy finalized (GIZ Project)
- Ratify the International Maritime Convention for the Prevention of Pollution from Ships (MARPOL).
Section B: Outcome 2- Enhanced state of readiness for reducing the risks associated with all hazards

Output 2.1 - National capacity for sharing disaster-related information strengthened.
Communication in and around a disaster is a critical and every effort must be made to share preparedness and disaster-related information with all Grenadians. To achieve this output the activities below will be undertaken:

(a) Expand NaDMA’s range of radio coverage to cover Grenada, Carriacou and Petite Martinique
(b) Employ usage of broadcast interrupt system for information dissemination
(c) Encourage telecommunications companies to disseminate information via SMS
(d) Train personnel in Emergency Communication

Output 2.2 - Multi-hazard Early warning systems at the local and national levels improved³.
Establishing EWS is expected to empower the communities to take steps to safeguard themselves against the negative consequences of many hazards. Activities aimed at improving the EWS are:

(a) Early warning systems for volcano hazard (water and land), tsunami, and storm surge implemented in Grenada, Carriacou, Petite Martinique,
(b) Measures to safeguard the EWS are put in place
(c) Utilization of climate forecasts produced by CARICOF (Caribbean Climate Outlook Forum) in order to predict the likelihood of storm surge - induced events
(d) Procure hydrometer to monitor river water levels and to identify a hydrological drought. This device will allow information to be shared in real time.

Output 2.3 - Private sector support for preparedness and response activities improved
It is necessary that all stakeholders take on roles and responsibilities in order to play their part in creating a culture of safety in Grenada. Under this output activities for the period 2015-2019 include:

(a) Implement incentive scheme to promote the involvement of private sector
(b) Provision of financial support by private sector entities
(c) Provision of disaster response supplies by the private sector
(d) Assignment of volunteers from the private sector in training sessions

³ Standardized procedures for media houses and telecommunication companies for the dissemination of updated hazard preparedness information
Work Programme 2015-2019

Output 2.4 - Disaster Management Plans for Ministries prepared, approved and exercised
All Ministries need to have their own contingency and business continuity plans. As such ministries will be provided with the assistance to develop and operationalize their plans such as:
(a) Share template for DMPs with Ministry
(b) NaDMA to provide technical support for the elaboration of the DMP by each Ministry
(c) Finalize Disaster Management Plans per ministry
(d) Install and ensure that back-up generators are working properly
(e) Procure adequate stocks of emergency supplies relevant to the needs of the agency

Output 2.5 - Media personnel awareness and understanding of Comprehensive Disaster Management (CDM) enhanced.
The media is extremely valuable in the area of disaster management and NaDMA will need to continue to partner the media community to increase public safety. This output will focus on the following:
(a) Develop a CDM training programme for Media Personnel
(b) Deliver and evaluate training programme for Media Personnel
(c) Utilize trained media personnel in PEA programmes

Output 2.6 - National evacuation plan for multiple hazards developed and implemented.
Evacuation can be an effective tool for saving lives, reducing injuries and other hazard impacts if properly implemented. Therefore it needs to be an integral element of the CDM strategy. During this programme period NaDMA will:
(a) Develop evacuation plans for hazards, namely volcano, hurricane, storm surge, tsunami, landslide, flooding, earthquake, drought
(b) Convene stakeholder consultation to identify scope of evacuation plan per hazard
(c) Finalize plan
(d) Conduct awareness training and exercises
(e) Identify and map alternative routes to evacuating or accessing (post event) critical facilities

Output 2.7 - National disaster management plan for multiple hazards enhanced
Grenada’s national emergency management plan is the overarching framework for the coordination and collaboration. It must be further supported by plans and strategies for specific disaster management phases and hazards. The output will achieve the following:
(a) Drought management plan developed
(b) Debris management plan developed
(c) Underwater volcano preparedness plan developed
(d) Oil spill management framework enhanced:
(e) Develop a national oil spill policy and response plan
(f) Procure equipment for response to an oil spill event
(g) Build new oil terminal further inland (specific to new plants e.g. Petro Caribe)
(h) Develop and administer training programmes in the implementation of the management plans

**Output 2.8 - National security systems enhanced including preparedness to counter terrorism**

Grenada should be prepared to respond to threats that pose any risk to the security of the Nation and that includes acts of terrorism. To improve this area the focus will be on:

(a) Enforce international regulations regarding port facilities e.g. International Ship and Port Facility Security (ISPS) Code
(b) Establish better data-sharing and collaboration between Intelligence Units.
   i. Participate in meetings and conferences between intelligence agencies at the national and regional level
   ii. Establish or revise data-sharing platform to be accessed amongst Units at the national level
(c) Improve capacity within organizations that are directly involved in counter-terrorism.
(d) Develop and administer training programmes in counter-terrorism locally
(e) Improve port of entry screening and profiling

iii. Become signatories to intelligence-related treaties with counter terrorism agencies at the regional and international level
iv. Become party to data transfer protocols amongst Units at the regional and international level
Outcome 2: Enhanced state of readiness for reducing the risks associated with all hazards

**Output 2.1**
National capacity for sharing disaster-related information strengthened.

**Output 2.2**
Multi-hazard Early warning systems at the local and national levels improved

**Output 2.3**
Private sector support for preparedness and response activities improved

**BROAD ACTIVITIES/PROJECTS**

- Expand NaDMA’s range of radio coverage to cover Grenada, Carriacou and Petite Martinique
- Employ usage of broadcast interrupt system for information dissemination
- Encourage telecommunications companies to disseminate information via SMS
- Train personnel in Emergency Communication
- Early warning systems for volcano hazard (water and land), tsunami, and storm surge implemented in Grenada, Carriacou, Petite Martinique
- Measures to safe guard the EWS are put in place
- Utilization of climate forecasts produced by CARICOF (Caribbean Climate Outlook Forum) in order to predict the likelihood of storm surge - induced events
- Procure hydrometer to monitor river water levels and to identify a hydrological drought. This device will allow information to be shared in real time.
- Implement incentive scheme to promote the involvement of private sector
- Provision of financial support by private sector entities
- Provision of disaster response supplies by the private sector
- Assignment of volunteers from the private sector in training sessions
Outcome 2 (Continued): Enhanced state of readiness for reducing the risks associated with all hazards

Output 2.4
Disaster Management Plans for Ministries prepared, approved and exercised.

Output 2.5
Media personnel awareness and understanding of Comprehensive Disaster Management (CDM) enhanced

Output 2.6
National evacuation plan for multiple hazards developed and implemented.

**BROAD ACTIVITIES/PROJECTS**

- Share template for DMPs with Ministry
- NaDMA to provide technical support for the elaboration of the DMP by each Ministry
- Finalize Disaster Management Plans per ministry
- Install and ensure that back-up generators are working properly
- Procure adequate stocks of emergency supplies relevant to the needs of the agency

- Develop a CDM training programme for Media Personnel
- Deliver and evaluate training programme for Media Personnel
- Utilize trained media personnel in PEA programmes

- Develop evacuation plans for hazards, namely volcano, hurricane, storm surge, tsunami, landslide, flooding, earthquake, drought
- Convene stakeholder consultation to identify scope of evacuation plan per hazard
- Finalize plan
- Conduct awareness training and exercises
- Identify and map alternative routes to evacuating or accessing (post event) critical facilities
Outcome 2 (Continued): Enhanced state of readiness for reducing the risks associated with all hazards

Output 2.7
National disaster management plan for multiple hazards enhanced

Output 2.8
National security systems enhanced including preparedness to counter terrorism

BROAD ACTIVITIES/PROJECTS

- Drought management plan developed
- Debris management plan developed
- Underwater volcano preparedness plan developed
- Oil spill management framework enhanced
- Develop a national oil spill policy and response plan
- Procure equipment for response to an oil spill event
- Build new oil terminal further inland (specific to new plants e.g. Petro Caribe)
- Develop and administer training programmes in the implementation of the management plans

- Enforce international regulations regarding port facilities e.g. International Ship and Port Facility Security (ISPS) Code
- Establish better data-sharing and collaboration between Intelligence Units.
- Participate in meetings and conferences between intelligence agencies at the national and regional level Security (ISPS) Code
- Establish or revise data-sharing platform to be accessed amongst Units at the national level
- "Become signatories to intelligence-related treaties with counter-terrorism agencies at the regional and international level
- Become party to data transfer protocols amongst Units at the regional and international level
- Improve capacity within organizations that are directly involved in counter-terrorism.
- Develop and administer training programmes in counter-terrorism locally
- Develop and administer training programmes in counter-terrorism locally
Section C: Outcome 3 - Improved capacity for managing emergency response

Output 3.1 - Emergency facilities upgraded to facilitate vulnerable groups
Vulnerable populations need particular assistance during emergencies/disaster. The programme proposes activities to upgrade facilities to these individuals including:

(a) Identify and map existing and alternative emergency facilities
(b) Ensure prospective emergency facilities are built or adapted to established standards
(c) Ensure facilities are properly equipped and
(d) Provide continuous training for facility managers and support staff
(e) Ensure all facilities have emergency plans
(f) Conduct exercises to test plans

Output 3.2 - Initial Damage Assessment (IDA) teams established and trained at the local level
It is important to determine the type and extent of damage once an emergency/disaster occurs. To do so Grenada will need to maintain personnel who are trained to quickly provide such information. Under this output it proposed for NaDMA to:

(a) Identify and train persons in IDA
(b) Establish IDA teams
(c) Ensure IDA teams participate in exercises to evaluate quality of training

Output 3.3 - National Damage Assessment and Needs Analysis (DANA) team capacity strengthened
National teams must be established to go out into disaster affected areas to conduct precise damage assessment and needs analysis. This will determine the appropriate response and recovery effort. In order to facilitate this NaDMA will:

(a) Identify and train persons in DANA
(b) Establish DANA team
(c) Ensure DANA team participates in exercises to evaluate effectiveness of the team

Output 3.4 - First Responders trained in Disaster Risk Management (DRM) related areas
First responders can immediately act to rescue trapped or injured persons and manage critical incidents to reduce loss of life. In order to facilitate functioning teams the following activities are proposed:

Maritime Search and Rescue:

(d) Sign the regional Maritime SAR agreement
(e) Ratify the International Search and Rescue Convention (SAR Convention)
(f) Strengthen existing Search And Rescue cooperation within the region through the signing of MoU with key partners
(g) Develop/formalise local protocol/MoUs with local/private vessels including yachts to respond to Maritime Disaster.
(h) Enhance Basic Seamanship training to include key elements of Maritime SAR

(i) Undertake training in Maritime Search and Rescue for maritime agencies and local/private vessels.

(j) Develop a National Maritime SAR plan.

Operational Teams:

(a) Conduct training in Incident Command and Mass Casualty Management

Output 3.5 - District Disaster Management Committees strengthened

The disaster management structure of Grenada requires the establishment of District Disaster Management Committee as part of the national mechanism. To ensure each committee is functioning the following are proposed:

(a) Conduct Training for DMCs in Disaster Risk Management
(b) Conduct exercises to evaluate effectiveness of the DMCs
(c) Develop standards for setting up of satellite EOCs
(d) Establish and equip satellite EOCs

Output 3.6 - National Volunteer Service established

Volunteers have long been recognized as an added value of their national disaster management system particularly when responding to disasters. Grenada is seeking to establish its volunteer service during the program period through the activities below:

(a) Develop protocols for establishment and management of a NVS (volunteer-led management)
(b) Develop guidelines and mechanisms for recruitment of volunteers
(c) Conduct training for volunteers
(d) Maintain and upgrade database of registered volunteers
(e) Design and implement recognition, credential and incentive activities for volunteers

Output 3.7 - Register of key personnel, equipment and supplies established and maintained

A database of key personnel can facilitate easy registry, retrieval, deployment and overall management of available resources. To be able to do so NaDMA proposes to:

(a) Review and update the key personnel register
(b) Establish and maintain an online register of all equipment and supplies
(c) Regular review of all registers
Outcome 3: Improved capacity for managing emergency response

**Output 3.1** Emergency facilities upgraded to facilitate vulnerable groups
- Identify and map existing and alternative emergency facilities
- Ensure prospective emergency facilities are built or adapted to established standards
- Ensure facilities are properly equipped and provided continuous training for facility managers and support staff
- Ensure all facilities have emergency plans
- Conduct exercises to test plans

**Output 3.2** Initial Damage Assessment (IDA) teams established and trained at the local level
- Identify and train persons in IDA
- Establish IDA teams
- Ensure IDA teams participate in exercises to evaluate quality of training

**Output 3.3** National Damage Assessment and Needs Analysis (DANA) team capacity strengthened
- Identify and train persons in DANA
- Establish DANA teams
- Ensure DANA teams participate in exercises to evaluate quality of training

**Output 3.4** First Responders trained in Disaster Risk Management (DRM) related areas
- Sign the regional Maritime SAR agreement
- Ratify the International Search and Rescue Convention (SAR Convention)
- Strengthen existing Search And Rescue cooperation within the region through the signing of MoU with key partners
- Develop/formalise local protocol/MoUs with local/private vessels including yachts to respond to Maritime Disaster.
- Enhance Basic Seamanship training to include key elements of Maritime SAR to Maritime Disaster.
- Undertake training in Maritime Search and Rescue for maritime agencies and local/private vessels.
- Develop a National Maritime SAR plan.
- Conduct training in Incident Command and Mass Casualty Management
Outcome 3 (Continued): Improved capacity for managing emergency response

**Output 3.5**
District Disaster Management Committees strengthened

- Conduct Training for DMCs in Disaster Risk Management
- Conduct exercises to evaluate effectiveness of the DMCs
- Develop standards for setting up of satellite EOCs
- Establish and equip satellite EOCs

**Output 3.6**
National Volunteer Service established

- Develop protocols for establishment and management of a NVS (volunteer-led management)
- Develop guidelines and mechanisms for recruitment of volunteers
- Conduct training for volunteers
- Maintain and upgrade database of registered volunteers
- Design and implement recognition, credential and incentive activities for volunteers

**Output 3.9**
Register of key personnel, equipment and supplies established and maintained

- Review and update the key personnel register
- Establish and maintain an online register of all equipment and supplies
- Regular review of all registers.
Section D: Outcome 4 - Strengthened recovery, reconstruction and rehabilitation capacities

Output 4.1 - Multi-hazard National Recovery Policy and Plan Developed
Currently Grenada lacks a written recovery framework and plan with which to support their recovery efforts after a major event. To fill this gap Grenada proposes to adapt CDEMA’s model during the program period using the following:

(a) Develop TOR for national recovery committee
(b) Set up National recovery committee
(c) Develop TOR for adapting CDEMA’s model recovery policy and framework
(d) Conduct national consultations to include communities and sectors
(e) Prepare draft model for comments
(f) Finalize draft into final document
(g) Gazette final document.

Output 4.2 - Livelihood restoration programme established
After a disaster many livelihood activities in the worse affected areas stalled or even abandoned. A livelihood restoration programme would work to reduce such negative consequences in Grenada. It is anticipated that the following actions will be undertaken to achieve this output:

(a) Prepare a concept paper on options for developing a livelihood restoration programme
(b) Present paper to Cabinet for conclusion
(c) Develop livelihood restoration programme based on Cabinet conclusion
(d) Determine source of funding
(e) Implement programme, with priority given to the most affected

Output 4.5 - Psycho-social support programs established
Psychosocial support is a credible and effective tool for assisting disaster-affected populations to regain a sense of place after a major disaster. In Grenada to strengthen the recovery of the population NaDMA proposes, during the program period, to:

(a) Build the capacity of persons to conduct post disaster psycho-social support.
(b) Convene train the trainers workshops
(c) Train volunteers to be national post disaster peer helpers and counselors

Output 4.6 Pricing protocol for post-disaster established.
Grenada proposes to establish a formal pricing protocol after the occurrence of a disaster by achieving the below activities:

(a) Develop pricing standard
(b) Implement pricing standard
Outcome 4: Strengthened national disaster public education and awareness for CDM

Output 4.1
Multi-hazard National Recovery Policy and Plan Developed
- Develop TOR for national recovery committee
- Set up National recovery committee
- Develop TOR for adapting CDEMA’s model recovery policy and framework
- Conduct national consultations to include communities and sectors
- Prepare draft model for comments
- Finalize draft into final document.
- Gazette final document.

Output 4.2
Livelihood restoration programme established
- Prepare a concept paper on options for developing a livelihood restoration programme
- Present paper to Cabinet for conclusion
- Develop livelihood restoration programme based on Cabinet conclusion
- Determine source of funding
- Implement programme, with priority given to the

Output 4.3
Psycho-social support programs established
- Build the capacity of persons to conduct post disaster psycho-social support.
- Convene train the trainers workshops
- Train volunteers to be national post disaster peer helpers and counsellors

Output 4.4
Pricing protocol for post-disaster established
- Develop pricing standard
- Implement pricing standard

BROAD ACTIVITIES/PROJECTS
Section E: Performance Monitoring Framework

The Performance Monitoring Framework (PMF) sets out the means by which the CWP will be monitored and reported on for its duration. The PMF is a simple monitoring and evaluation system for the CWP. Measures of progress or Performance Indicators have been developed for each CWP Outcome and Output result. The indicators will assist in measurement of achievement of the planned result.

Each performance indicator will be assigned a Target which it is intended to achieve by 2019. The ability of the NaDMA to drive the achievement of these targets will determined if the planned results have been achieved. Further each indicator will have a baseline. The baseline gives an indication of the status at the beginning of the Country Work Programme. It is the existing condition in 2015 before the CWP implementation results in a change in the CDM situation.

Monitoring and reporting of achievements will be based on the documentation of progress towards attainment of final targets and any associated tangible change that occurs as result of the implementation under the CWP. Part of monitoring will require the adjustments of implementation strategies in a timely manner to address impediments to the achievement of set targets.

<table>
<thead>
<tr>
<th>CWP Output Result</th>
<th>Performance Indicator</th>
<th>Baseline</th>
<th>Final Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output 1.1</td>
<td>Indicator 1.1.1-</td>
<td>DM Act in force</td>
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<td></td>
<td>Existence of enacted</td>
<td>National CDM</td>
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<td>CDM legislation and</td>
<td>policy adapted</td>
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<td>adopted respectively</td>
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<td>regulations</td>
<td>adoption</td>
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</tbody>
</table>

The reporting on progress to achievement of the targets and consequently the results of the CWP will also assist NaDMA and Grenada in compiling disaster risk reduction and management reports to other international and regional agencies.
**Outcome 1: Improved capacity to reduce risks to all hazards**

Indicators: Evidence (i) that hazard maps have been utilised for planning and decision-making (ii) of enforcement of legislative and regulatory frameworks and (iii) DRM related behaviour has been positively impacted at the community level and among

- **Output 1.1**
  National CDM legislation and policy reviewed, enacted and adopted respectively

- **Indicator 1.1.1** - Existence of enacted CDM legislation and regulations

- **Indicator 1.1.2** - Presence of a National CDM Policy that has been adopted

- **Output 1.2**
  Budgetary allocation increased for routine operations at NaDMA

- **Indicator 1.2.1** - % change of budgetary allocation for routine operations

- **Output 1.3**
  NaDMA (secretariat) strengthened

- **Indicator 1.3.1** - Existence of a new organisational structure for the NaDMA secretariat that has been approved by the Cabinet

- **Indicator 1.3.2** - Number of personnel hired to fill gaps in new organisational structure

- **Indicator 1.3.3** - Number of technical staff trained in DRM related areas that have been identified as gaps by assessments of training needs

- **Indicator 1.3.4** - Percentage of technical staff trained for which there is evidence that new knowledge and skills have been applied

- **Output 1.4**
  CDM Programme in schools strengthened

- **Indicator 1.4.1** - Number of CDM education initiatives implemented by NaDMA in the primary and secondary schools

- **Indicator 1.4.2** - Existence of a Safe School Programme

- **Indicator 1.4.3** - Number of functioning CDM school groups
Outcome 1 (Continued): Improved capacity to reduce risks to all hazards

Indicators: Evidence (i) that hazard maps have been utilised for planning and decision-making (ii) of enforcement of legislative and regulatory frameworks and (iii) DRM related behaviour has been positively impacted at the community level and among youth.

Output 1.5
Projects for risk mitigation implemented

Indicator 1.5.1 - Number of capital projects identified and funded

Output 1.6
CDM Public Information and Education (PIE) programme strengthened

Indicator 1.6.1 - Number of new initiatives implemented by NaDMA
Indicator 1.6.2 - Number of TV programmes about DRR produced annually by NaDMA

Output 1.7
Hazard and Vulnerability Assessment (HVA) processes integrated into a national development planning

Indicator 1.7.1 - Number of trainings in HVA convened
Indicator 1.7.2 - Number of HVA maps generated
Indicator 1.7.3 - Evidence that HVA maps have been utilized for planning and decision making

Output 1.8
Water availability and its sustainable use improved

Indicator 1.8.1 - Percentage change in household consumption patterns
Indicator 1.8.2 - Percentage of households using water storage facilities
Indicator 1.8.3 - Number of solar powered desalination plants constructed

Output 1.9
Land and sea management policy and regulatory frameworks finalized and enforced

Indicator 1.9.1 - Existence of land and sea management policy and regulatory frameworks
Indicator 1.9.2 - Evidence of enforcement of land and sea management policy and regulatory frameworks
Outcome 2: Enhanced state of readiness for reducing the risks associated with all hazards

Indicator - (i) Evidence of improved performance of members of National Disaster Organisation in exercises to test the National Multi-Hazard Disaster Management Plan (ii) % of vulnerable population that is served by Early Warning Systems

Output 2.1 Emergency communications systems strengthened.

Indicator 2.1.1 - Percentage of districts with which NaDMA can communicate directly via emergency radio communications

Indicator 2.1.2 - Number of pieces of functional emergency communication equipment at NaDMA

Indicator 2.1.3 - Number of persons within the National Disaster Organisation trained in emergency communications

Output 2.2 Multi-hazard Early warning systems at the local and national levels improved and maintained

Indicator 2.2.1 - Number of hazard specific EWS that are functional

Indicator 2.2.2 - Percentage of the population estimated to be covered by the Emergency Broadcast System

Output 2.3 Private sector support for preparedness and response activities improved

Indicator 2.3.1 - Number of preparedness and response activities, led by NaDMA, that are supported financially by the private sector

Indicator 2.3.2 - Extent to which the private sector fund preparedness and response activities

Output 2.4 Disaster Management Plans for Ministries prepared, approved and exercised

Indicator 2.4.1 - Percentage of ministries with Emergency Management Plans

Indicator 2.4.2 - Percentage of ministries for which submitted Emergency Management Plans are endorsed by NaDMA

Indicator 2.4.3 - Percentage of ministries exercising their approved plans at least once annually
Outcome 2 (Continued): Enhanced state of readiness for reducing the risks associated with all hazards

Indicator - (i) Evidence of improved performance of members of National Disaster Organisation in exercises to test the National Multi-Hazard Disaster Management Plan (ii) % of vulnerable population that is served by Early Warning Systems

Output 2.5
Media personnel awareness and understanding of Comprehensive Disaster Management (CDM) enhanced

Indicator 2.5.1 - # of training and sensitisation initiatives on CDM and climate change that are conducted for media workers

Indicator 2.5.2 - # of media personnel trained in/sensitised to CDM and climate change issues

Indicator 2.5.3 - Quality of CDM information shared by media personnel

Output 2.6
National evacuation plan for multiple hazards developed and implemented

Indicator 2.6.1 - Presence of a National Multi hazard evacuation plan

Indicator 2.6.2 - Frequency of testing multi hazard evacuation plan

Output 2.7
National disaster management plan for multiple hazards enhanced

Indicator 2.7.1 - Number of hazard specific disaster management plans developed

Indicator 2.7.2 - Number of hazard-specific plans that are tested at least once annually

Indicator 2.8.3 - Number of simulation exercises conducted to test the national Multi-Hazard Disaster Management Plan

Output 2.8
National security systems enhanced including preparedness to counter terrorism

Indicator 2.8.1 - Level of compliance of ports security systems with international security standards

Indicator 2.8.2 - Number of intelligence/security agencies/units participating in national security meetings and related conferences/training

Indicator 2.8.3 - Existence of an intelligence data-sharing platform

Indicator 2.8.4 - Number and type of security-related equipment that meet international standards
Outcome 3: Improved capacity for managing emergency response

Indicator - Level of satisfaction of the beneficiaries with the national emergency response mechanism

**Output 3.1**
Emergency facilities upgraded to facilitate vulnerable groups

**Indicator 3.1.1** - Number of emergency facilities upgraded to facilitate vulnerable groups

**Indicator 3.1.2** - Level of satisfaction with the emergency facilities and services provided

**Output 3.2**
Initial Damage Assessment (IDA) teams established at district and community levels

**Indicator 3.2.1** - Number of IDA teams established and functional

**Indicator 3.2.2** - Number of persons trained in IDA at the district and community levels

**Output 3.3**
National Damage Assessment and Needs Analysis (DANA) team capacity strengthened

**Indicator 3.3.1** - Number of DANA teams established and functional

**Indicator 3.3.2** - Number of persons trained in DANA

**Output 3.4**
First Responders Disaster Risk Management (DRM) capacities enhanced

**Indicator 3.4.1** - Number of training initiatives conducted

**Indicator 3.4.2** - Number of first responders trained

**Indicator 3.4.3** - Quality of DRM training
Outcome 3 (Continued): Improved capacity for managing emergency response

Indicator - Level of satisfaction of the beneficiaries with the national emergency response mechanism

**Output 3.5**
District Disaster Management Committees strengthened

**Indicator 3.5.1** - Number of Disaster Risk Management related training initiatives convened

**Indicator 3.5.2** - Number of District Disaster management Committee members and coordinators trained

**Indicator 3.5.3** - Number of satellite Emergency Operations Centres (EOCs) established and functioning

**Output 3.6**
National Volunteer Service established

**Indicator 3.6.1** - Number of volunteers registered

**Indicator 3.6.2** - Existence of a database of national volunteers

**Output 3.7**
Relief management system established and maintained

**Indicator 3.7.1** - Existence of a Relief Supplies management System

**Indicator 3.7.2** - Number of persons trained in the use of the Relief Supplies Management System

**Indicator 3.7.3** - Number of sites identified to used as district warehouses
Outcome 4: Strengthened recovery, reconstruction and rehabilitation capacities

Indicator - Level of satisfaction of beneficiaries with the post disaster recovery programme

Output 4.1
Multi-hazard National Recovery Policy and Plan Developed

Indicator 4.1.1 - Existence of a national recovery policy and plan

Indicator 4.1.2 - Evidence that the national recovery policy and plan includes consideration of climate change issues

Output 4.2
Livelihood restoration programme established

Indicator 4.2.1 - Existence of livelihood Restoration Programme

Output 4.3
Psycho-social support programs established

Indicator 4.3.1 - Presence of a psycho-social support program

Indicator 4.3.2 - Number of trainers and volunteers that participate in the program

Output 4.4
Psycho-social support programs established

Indicator 4.4.1 - Evidence that the national recovery policy and plan includes a post-disaster pricing policy and protocol