Comprehensive Disaster Management:
A Model National CDM Policy for Caribbean Countries

Funded by:

Australian AID

UKaid from the British people

Canada

Supported by:

CDEMA CARIBBEAN DISASTER EMERGENCY MANAGEMENT AGENCY

Resilient States · Safer Lives

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CARICOM	Caribbean Community
CCA	Climate Change Adaptation
CDEMA	Caribbean Disaster Emergency Management Agency
CDERA	Caribbean Disaster Emergency Response Agency (now CDEMA)
CDM	Comprehensive Disaster Management
CU	Coordinating Unit in CDEMA
DRA	Disaster Risk Assessment
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
GDP	Gross Domestic Product
HFA	Hyogo Framework of Action
ICT	Information and Communication Technologies
IR	Immediate Results
ISDR	International Strategy for Disaster Reduction
MDG	Millennium Development Goals
M&E	Monitoring and Evaluation
M, E&R	Monitoring, Evaluation and Reporting
MTESP	Medium Term Economic Strategy Paper
MWP	Multiyear Work Plan
NDMO	National Disaster Management Office
NDO	National Disaster Organisation
NGO	Non Governmental Organization
OFDA	US Office of Disaster Assistance
PPAs	Programmes, projects and activities
PRSP	Poverty Reduction Strategy Paper
PS	Participating States
PSIP	Public Sector Investment Portfolio
SC	Steering Committee
SIDS	Small Island Developing States
UNDP	United Nations Development Programme
WCDR	World Conference in Disaster Reduction (Mumbai Declaration 2005)
WPDRSC	Work Programme Development and Review Sub-Committee

Preface

The Caribbean region is comprised of a number of small islands and low-lying coastal states, where the major urban areas, the associated infrastructure and key economic sectors are located in areas that are highly vulnerable to the impacts of both natural and anthropogenic hazards.

CDEMA Participating States (PS) continue to experience a number of repeated losses from hurricanes and their associated effects, flooding, landslides, volcanic eruptions and earthquakes. Global concerns such as the vulnerability of the region to climate change also mean that a number of States are likely to be affected by increasing climate variability, (hurricanes, floods, droughts) and damage to water resources, ecosystems, human settlements, agricultural systems, coastal resources, tourism infrastructure and human health.

Apart from natural hazards, the region is also susceptible to a number of technological hazards. These include large-scale fires, oil and chemical spills, aircraft accidents, accidents involving the transportation of toxic and hazardous waste material on land and sea, large-scale marine and on-land transportation accidents.

Cognizant of the above, in 2001, the Caribbean Community (CARICOM) through broad-based stakeholder consultations adopted a Strategy and Results Framework for CDM. In 2006, the CDM Strategy was reviewed and reshaped to emphasize disaster loss reduction through risk management, and to follow a more Programme Based Approach (PBA) with an emphasis on Results Based Management (RBM).

In essence, the focus of Disaster Management in the Caribbean evolved from one principally concerned with response to events, to one based on disaster risk reduction through greater attention to mitigation, preparedness and recovery. This paradigm shift in the Region's approach to risk management necessitates more proactive and strategic planning to galvanize the necessary support by decision makers, encourage sector mainstreaming of CDM, enhance knowledge management on CDM and strengthen community resilience.

It is therefore the CDEMA Coordinating Unit's intention to support our Participating States (PS) in delivering CDM through the development of a model national CDM Policy and associated national CDM Strategy and Plan of Action templates.

Chapter 1 of this handbook provides a Model National CDM Policy for adaptation by CDEMA Participating States. The elaboration and integration of the key components and principles of CDM into national strategies, legislation, regulations, plans and programmes, requires a National CDM Policy which will, in turn, ensure that there is a long term policy framework for implementing CDM.

Chapter 2 of this handbook provides the templates for the development of a CDM Strategy and Multi-Year Work Programmes. These are key documents to support the realization of national CDM Policies.

The CDEMA CU is cognizant that national circumstances and priorities will of course dictate the capacity of CDEMA PS to drive the adaptation of the model CDM tools contained in this handbook.

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The development of this suite of CDM tools required extensive input and collaboration from a variety of stakeholders in the Caribbean. CDEMA wishes to thank the **National Disaster Coordinators**, particularly the **Work Programme Development and Review Sub-Committee** of the Technical Advisory Council (TAC), and the **CDM Coordination and Harmonization Council.**

CDEMA also expresses its appreciation to the **Canadian Department of Foreign Affairs, Trade and Development (formerly CIDA)**, UKAid from the **Department for International Development and the Australian Department of Foreign Affairs and Trade (formerly AusAID)** for the financial support provided for the process and publication of the report through the Comprehensive Disaster Management Harmonized Implementation Programme, Phase 1.

CHAPTER 1
The Model National CDM Policy

Prologue

1. The Caribbean is particularly vulnerable to natural disasters — ranging from hurricanes, drought, floods, storm surges and tsunamis to technological and manmade disasters. Each year, these events result in significant loss of life, the destruction of homes, public infrastructure and livelihoods and the reversal of hard-won economic gains.
2. The deadly tsunami in the Indian Ocean region, the impact of Hurricane Tomas in 2010, and the recent earthquake events in Japan have focused the attention of the world community, particularly those living in small islands and coastal regions, to the need for greater vigilance in disaster prevention and preparedness. This is all the more important as evidence mounts that climate change will exacerbate the incidence of extreme events and potential disasters. Adaptation to climate change, and disaster risk reduction are therefore core development issues to Caribbean countries.
3. The required policy and technical responses are not particularly complex; the economic, social and environmental benefits of managing these risks, however, far outweigh their costs. What seems to be lacking is the ability to mainstream comprehensive disaster management into national development planning and to ensure that policy and program responses to the challenges are sustained, relevant and effective.
4. In order to address these concerns, this Policy advocates practical measures that countries can take to influence their national development policies and strengthen their programs. Importantly, it addresses factors which may constrain or limit collaborative action between communities, island leaders, experts and development partners.
5. Although technological and other hazards are not as prevalent in the Caribbean at the present, this Policy focuses on all hazards and on all the phases in disaster management.
6. Given the similarity of approaches, the global agendas for disaster risk management and adaptation to climate change are increasingly merging. The Policy recognises this by adopting the term 'Comprehensive Disaster Management' (CDM) to refer to the management of all hazard risks — including climate and other natural hazards — within the broad context of sustainable development. (See Glossary).

The Caribbean Experience

Adaptation and hazard risk management, to be effective, need to be integrated into sustainable development policies and plans. With a few exceptions, however, regional efforts have not translated well into mainstreaming disaster risk management at the national level.

In general, National Disaster Offices have been weak to encourage decision makers to favour prevention.

National focal points have varied from Meteorological Offices, Environmental Management agencies, Ministries of Finance, Planning, and Agriculture and Fisheries. Commonly, inter-sectoral, multi-stakeholder committees were established. The most effective arrangements involved Champions at high levels and official, rather than ad-hoc bodies.

Concepts of adaptation and CDM are not well understood. There is a lack of concrete and clear quantitative information available to convince decision makers to adopt these approaches.

Adaptation and CDM need to be supported by innovative economic instruments, such as insurance, housing loan applications and aid conditionality requiring that disaster risk management be considered in all proposals.

1.1 The Policy Context: Defining the Problem

1.1.1 Vulnerability of the Caribbean

The CDEMA Participating States comprise small states with developing economies prone to both of the two main global catastrophe hazards; earthquakes and hurricanes. In these small states, single catastrophes can have a disproportionate effect on both the national and regional economies.

Source: Advancing DRR in CDEMA Participating States [1]

Development is largely concentrated in coastal areas which are generally flat; these areas have relatively high exposure to hydro-meteorological hazards (particularly flooding) and to earthquake shaking (due to the nature of the soil/rock in these areas.) This fact, and the increasing impact of global climate change and sea-level rise on the frequency, intensity and potential impact of hydro-meteorological hazards, makes the adequate consideration of catastrophe hazards an important priority for Caribbean governments in their pursuit of sustainable development[2].

The vulnerability of the Caribbean region to hydro- meteorological hazards such as hurricanes, floods, drought, high magnitude rainfall and related hazards such

[1] Collymore, Jeremy, Advancing DRR in CDEMA Participating States. Meeting on the InstitutionalFramework for Disaster Risk Reduction in Latin America and the Caribbean, Asia and Africa. Panama City, Panama 13 and 14 December 2010 S P/RIALC-AA-RRD/Di N° 8-10

[2] Caribbean Catastrophe Risk Insurance Facility, 2009. Annual report 2009 – 2010. Caribbean Catastrophe Risk Insurance Facility Grand Cayman, Cayman Islands

as landslides is underscored, as are manmade and technological disasters. The recurrent impacts of these events have wreaked havoc on environment, economy and society throughout the region. Due to the disruption of economic activity and the loss of capital assets they provoke, natural disasters have had negative short-term effects on GDP growth. In many instances, disasters have also resulted in longer-term economic consequences, such as slower growth, higher indebtedness and higher regional and income inequality. Environmental and social costs, though more difficult to assess in monetary terms, have also been substantial.

It is estimated that almost four million Caribbean citizens were affected by natural disasters during the period 1990 to 2006 (refer to Table 1). There has been an increasing trend of loss of life and damage from hazards. Analyses conducted by the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) show that hurricanes have caused approximately US$5.7 billion in damage. In 2004, a year in which seven countries were affected by hurricanes, there was approximately US$2 billion in damages. Significantly, for one of those countries, the Grenada, losses were more than 100% of each country's gross domestic product (GDP).

Country	**Total no. of Disasters**	**Total no. of People Affected**	**Total Damage (US$ '000)**
Anguilla	1	150	50
Antigua and Barbuda	5	93,261	360,000
Bahamas	7	13,700	500,000
Barbados	3	3,000	0
Belize	7	145,170	330,240
Dominica	4	3,991	3,428
Grenada	4	62,045	894,500
Guyana	3	347,774	630,100
Haiti	28	2,221,815	101,000
Jamaica	13	943,734	1,808,787
St. Kitts and Nevis	4	12,980	238,400
St. Lucia	3	950	0
St. Vincent and the Grenadines	5	1,834	0
Suriname	1	25,000	0
Trinidad and Tobago	7	1,787	25,127
TOTAL	**95**	**3,877,191**	**4,891,632**

Table 1: Socioeconomic Impact of Natural Disasters on 15 Selected Caribbean Countries 1990-2006

Source: EM-DAT: The OFDA/CRED International Disaster Database

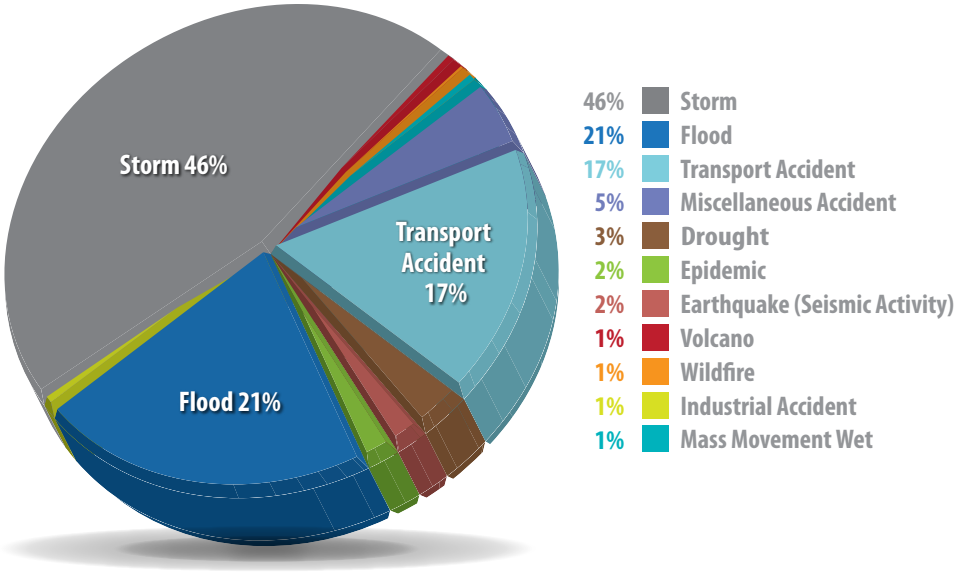

Figure 1: Distribution by Disaster Type/Caribbean 1980-2009

Source: EM-Dat 2010

Although meteorological hazards cause most deaths and damages, geological hazards have also caused significant loss of life and dislocation. The 2010 Haiti earthquake resulted in casualties estimated at over 230,000; the Montserrat volcanic eruption of 1995 killed 19 persons, destroyed the capital and has left more than half of the country uninhabitable.

The recognition of the vulnerability of the region led to several initiatives at both national and regional levels aimed at reducing this vulnerability. These date back to the 1980s and include the establishment of regional and national institutional and legislative frameworks, as well as the development of programmes to initially address preparedness and response and, subsequently, mitigation, prevention and recovery. Be that as it may, despite renewed preventative efforts at regional and international levels, the risk associated with natural events has not decreased. Economic costs can be expected to increase, as economic assets accumulate and economic interdependence reaches new levels. According to ECLAC[3], the impact of hurricanes on the Caribbean countries in the last three decades has manifested in losses and damage estimated at US$ 5.7 billion. "Of this amount, approximately

[3] Economic Commission for Latin America and the Caribbean (ECLAC) 2004, the 2004 Caribbean hurricane season: facts, figures, preliminary conclusions and lessons learned, Preliminary Overview of the Economies of Latin America and the Caribbean, 2004 (LC/G.2265-P), Santiago, Chile, December 2004

79% consisted of direct damage to infrastructure and capital assets, while 48% consisted of damage to the social and production sectors (including tourism)". Natural disasters are regarded as one of the main reasons for the volatility of the Caribbean economies' GDP[4]. The toll of natural disasters is appalling and rates of destruction increase decade after decade.

While the human toll taken by disasters has remained more or less stable, with the exception of the death toll from the Haitian earthquake in 2010, it is unlikely to decrease because of the persistence of widespread poverty, continuing demographic growth and migration towards coastal areas and cities. Finally, preliminary evidence regarding climate change seems to indicate that the probability of occurrence of severe weather events will rise in the region.

Caribbean governments have had to deal with the unwanted and unpredictable problem of disasters in addition to efforts to solve chronic economic problems - high unemployment, fiscal and balance-of-payments deficits and declining standards of living of their populations. This has set off a vicious cycle in which funds earmarked for development activities have had to be diverted to providing humanitarian relief, cleanup and rebuilding following natural disasters

1.1.2 Climate Variability and Change

In 2004, it was estimated that Central America and the Caribbean produced 558 metric tons of carbon dioxide (CO2) or 1.82% of total greenhouse gas emissions[5]. When analysed further, the islands of the Caribbean were responsible for less than 1% of total green house gas emissions. However, while the Caribbean produces only a tiny fraction of global greenhouse gas emissions, many of these islands are barely above sea level and are located in the hurricane belt, rendering them most vulnerable to the effects of climate change. Climate change is, therefore, of crucial importance to the sustainable development of the Caribbean.

Climatic data indicate that, since 1995, there has been an increase in the intensity and distribution of more intense hurricanes in the Caribbean, as shown in Figure 2 below. Climate variability, as manifested by changing and unpredictable weather patterns, already represents a major challenge for planners in the Caribbean[6]. Climate change-related disasters such as storms, hurricanes, floods, and droughts have very devastating effects on Caribbean SIDS, as entire islands are adversely affected ecologically, economically and socially, sparing no sector from their direct or indirect impact. There is no safety net; an unaffected area or sector which can cushion the adverse effects of these climatic related disasters.

The Caribbean's Silent Killer - Climate Change

On the morning of September 29, 2010 dozens converged on the bank of the Sandy Gully in Kingston, Jamaica's capital, watching as workmen dug through fallen concrete searching for those swept away by raging flood waters which stemmed from the outer bands of what was Tropical Storm Nicole.

When the rains ended, thirteen were killed, crops destroyed, the road network and countless houses damaged, leaving the government of Jamaica with a bill of close to US$210 million.

Throughout the rest of the Caribbean other countries have had to deal with floods in recent weeks. While heavy rains are expected during the five month long hurricane season, the weather pattern in the region has changed drastically. From prolonged droughts to flood waters the Caribbean has experienced several disasters which have caused millions of dollars in damage. The culprit - climate change.

Source: RJR News, November 4, 2010.

[4] Economic Commission for Latin America and the Caribbean (ECLAC) 2005, the Millennium Development Goals: a Latin American and Caribbean perspective
http://www.eclac.cl/publicaciones/xml/0/21540/lcg2331.pdf

[5] World Resources Institute, 2008 Climate Analysis Indicators Tool (CAIT) Version 5.0, Washington DC.

[6] Smith, Donna M. (2007) Progress in climate change adaptation in the Caribbean community, CARICOM Secretariat.

See [online]: http://www.climateactionprogramme.org/features/article/progress_in_climate_changeadaptation_in_the_caribbean_community. Accessed on June 15 2011

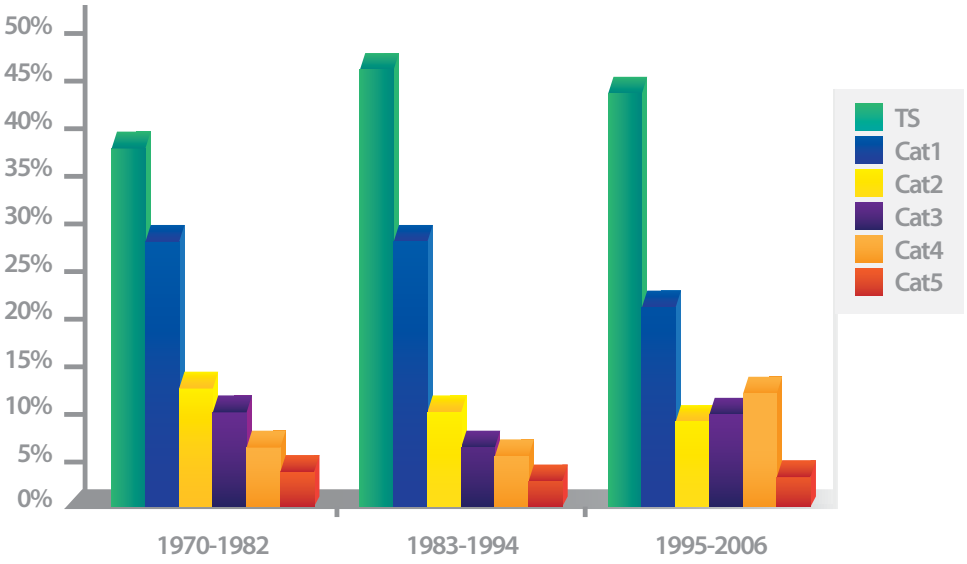

Figure 2: Intensity distribution of North Atlantic tropical cyclones 1970 – 2006 [7]

Another significant threat posed by climate change is the deterioration in human health due to the increased presence of vector-borne tropical diseases, such as malaria and dengue, and the prevalence of respiratory illnesses. These diseases can affect the well being and productivity of the work force in the Caribbean, thus compromising the region's growth and development potential. With increasing frequency, countries in the Caribbean are facing situations in which scarce resources that were earmarked for development projects have had to be diverted to repair damage inflicted by disasters[8]. With a slow recovery process, if this trend continues – whereby scarce resources are continually being channelled into disaster recovery efforts – the coping capacity of the Caribbean is likely to be overwhelmed. If Caribbean SIDS are to achieve sustainable development under these circumstances, they will be required to take steps towards becoming more resilient to climatic hazards and related environmental disasters.

1.1.3 Caribbean Response to Vulnerability – CDM Strategy and Results Framework

In 2001 the Caribbean Community (CARICOM), through broad based Stakeholder consultations, adopted a Strategy and Results Framework for Comprehensive Disaster Management (CDM) within the region. The objective was to link CDM to development decision-making and planning. The term Comprehensive Disaster Management (CDM) is defined as "the management of all hazards through all phases

[7] Dellarue, Howard, 2009. Climate Change and Disaster Risk Reduction in Caribbean Small Island Developing States. 45 ISOCARP Congress 2009

[8] Vermeiren, Jan C., 1993: Disaster Risk Reduction as a Development Strategy. Presented at the Caribbean Session of the 1993 National Hurricane Conference

of the disaster management cycle – prevention and mitigation, preparedness, response, recovery and rehabilitation - by all peoples- public and private sectors, all segments of civil society and the general population in hazard prone areas. CDM involves risk reduction & management and integration of vulnerability assessment into the development planning process." (CDERA 2001, 2006)

In 2005, in light of experiences throughout the region, and the outcomes of preparations for the World Conference on Disaster Reduction, CARICOM proposed to focus its programming around the critical actions needed to advance implementation of the five (5) Intermediate Results (IRs) of the 2001 CDM Strategy and Framework. In addition, the following thematic areas were selected for priority attention within CARICOM over the 2005-2015 period:

i. Hazard Mapping and Vulnerability Assessment
ii. Flood Management
iii. Community Disaster Planning
iv. Early Warning Systems
v. Climate Change
vi. Knowledge Enhancement

Building Resilience of nations and communities to hazard impacts was determined as the overall focus for the Caribbean region.

In 2007, CDEMA revised and enhanced the Strategy within a Results Based Management Framework. The revised Framework was informed by a review of the baseline study and expected results from the 2001 CDM Strategy and Results Framework. The assessment also concluded that governance structures needed to be re-visited as was the need to build community resilience and mainstream CDM into national and sectoral. In addition, a number of cross-cutting themes were identified during consultations:

i. Adaptation to Climate Change and Climate Variability
ii. Poverty Reduction and Sustainable Development and their link to the MDGs
iii. Use of Information and Communication Technologies (ICT) in CDM
iv. Integration of Gender Issues in CDM

v. Institutional Capacity and Institutional Support to the CDM process.

The Enhanced CDM Strategy and Programming Framework is structured as follows:

i. The **Overall Goal** is Sustainable Development

ii. The **Purpose** is: *"To strengthen regional, national and community level capacity for mitigation, management, and coordinated response to natural and technological hazards, and the effects of climate change."*

iii. There are 4 **Outcomes** and each outcome has its own compliment of outputs. The outcomes are summarised as follows:

a. Enhanced institutional support for CDM at the regional and national levels

b. Establishment of a mechanism and programme for CDM knowledge

c. Disaster Risk Management is mainstreamed into national and sectoral policies and programmes

d. Enhanced community resilience to climate variability and climate change

1.1.4 Future Challenges

Some of the critical assumptions identified for the Enhanced CDM Strategy and Framework have not been realised. These include the following:

1. Institutional weaknesses have militated against building strong decentralized national entities;
2. The financial and technical resources to build capacity at the local/community and national levels have not been adequate; and
3. Governance structures need to be revisited and champions identified for elevating disaster loss reduction on the national agendas in a practical and applied way.

Despite the challenges identified above, the importance and uniqueness of hazard and risk reduction for the future of the Caribbean have become increasingly evident. In addition, while there is no doubt that emergency assistance and response will remain necessary, the potential consequences of increasingly severe hazards indicate that much greater investments need to be made to reduce the risk of social and economic hazards impacting on vulnerable conditions.

The challenge then for CDM in the Caribbean, is to find effective means by which a much more comprehensive, and multi-sectoral participation of professional disciplines and public interests can contribute to disaster risk reduction. Accomplishment of this goal requires a robust policy framework, a political commitment and local community engagement in order to build social capital, raises awareness of disaster risk and strengthen local capacities to address a wider range of development issues.

1.2 The CDM Policy: Conceptual Framework

The constructs of this Model National CDM Policy are guided by the principles and priorities established in the Enhanced CDM Strategy and Programming Framework 2007-2012. Principal to the CDM approach is the paradigm shift from response to events, to one based on disaster risk reduction through greater attention and emphasis on mitigation, preparedness and recovery[9]. In addition, it is envisaged that the CDM policy will be part of the Participating State's political agenda; that it will be backed by dedicated resources in the national budget; and that it will have leadership and a champion at the highest levels of government. The schema of the CDM policy elements is provided in Figure 3 below.

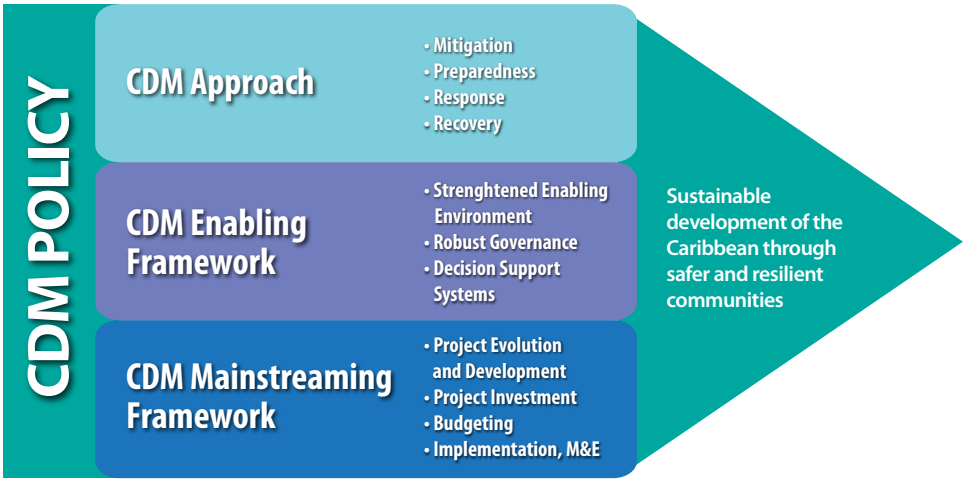

Figure 3: CDM Policy Elements

1.2.1 The CDM Policy Elements

Pursuant to the future challenges to CDM in the Caribbean, as identified in the previous section, the CDM policy is constructed on a **tripartite conceptual framework,** made up of the **CDM Approach, a CDM Enabling Environment, and a CDM Mainstreaming Environment.** These three pillars of the CDM policy provide the essential elements for creating a resilient society and contributing to its sustainable development.

While contemporary disaster management in the Caribbean promotes the comprehensive approach that embraces all the phases of the disaster management cycle, in actuality, much focus has been placed on disaster response and relatively lesser activities have been undertaken on disaster prevention and mitigation. Moreover, the constant challenge to translate disaster reduction policies and approaches effectively into concrete strategies, pogrammes and/or activities at

[9] Advancing CDM at the National Level – A Model for Discussion

the community and local levels still remains. This current situation has presented the critical need for a holistic and proactive approach to disaster reduction which focuses on disaster risks and the vulnerability of communities, and emphasizes multilevel, multidimensional (cross-sectoral), and multidisciplinary coordination and collaboration among all stakeholders in addressing gaps in the disaster management cycle. For purposes of this CDM Policy this is now referred to as the CDM Approach.

The CDM Approach: Is a seamless set of activities and interventions from preparation to mitigation, planning to prediction and response to recovery. Every activity is directed towards a never-ending quest for disaster resilience. It is an ongoing process by which governments, businesses, and civil society in CDEMA Participating States plan for and reduce the impact of disasters, react during and immediately following a disaster, and take steps to recover after a disaster has occurred. Appropriate actions at all points in the process lead to greater preparedness, better warnings, reduced vulnerability or the prevention of disasters during the next iteration of the process.

The CDM Enabling Framework: Provides the necessary institutional, policy and legislative framework; a robust governance system, and a suite of decision support systems that will allow key players – communities, government and the private sector – to engage in risk reduction behaviour. Effective disaster risk reduction will result in the likelihood and impact of a potential disaster being reduced. Should a disaster still be encountered, there should be quicker progress out of the Emergency Response into the Recovery Stage.

The CDM Mainstreaming Framework: Provides the necessary tools and guidelines for mainstreaming CDM into national development and sectoral plans. It also provides important toolkits for mainstreaming cross-sectoral issues such as gender, vulnerable groups and poverty into disaster management programmes and interventions.

1.2.1.1 The CDM Approach

Central to the CDM Policy and its constituent elements is the CDM Approach which is illustrated in Figure 4 below. The CDM Approach provides the actions which Participating States will plan and implement in order to reduce the impact of disasters, and take steps to recover after a disaster has occurred. The CDM Approach is essentially a holistic approach that promotes sustainable human development concepts. It facilitates the promotion of the "culture of prevention" and the incorporation of disaster management in development planning.

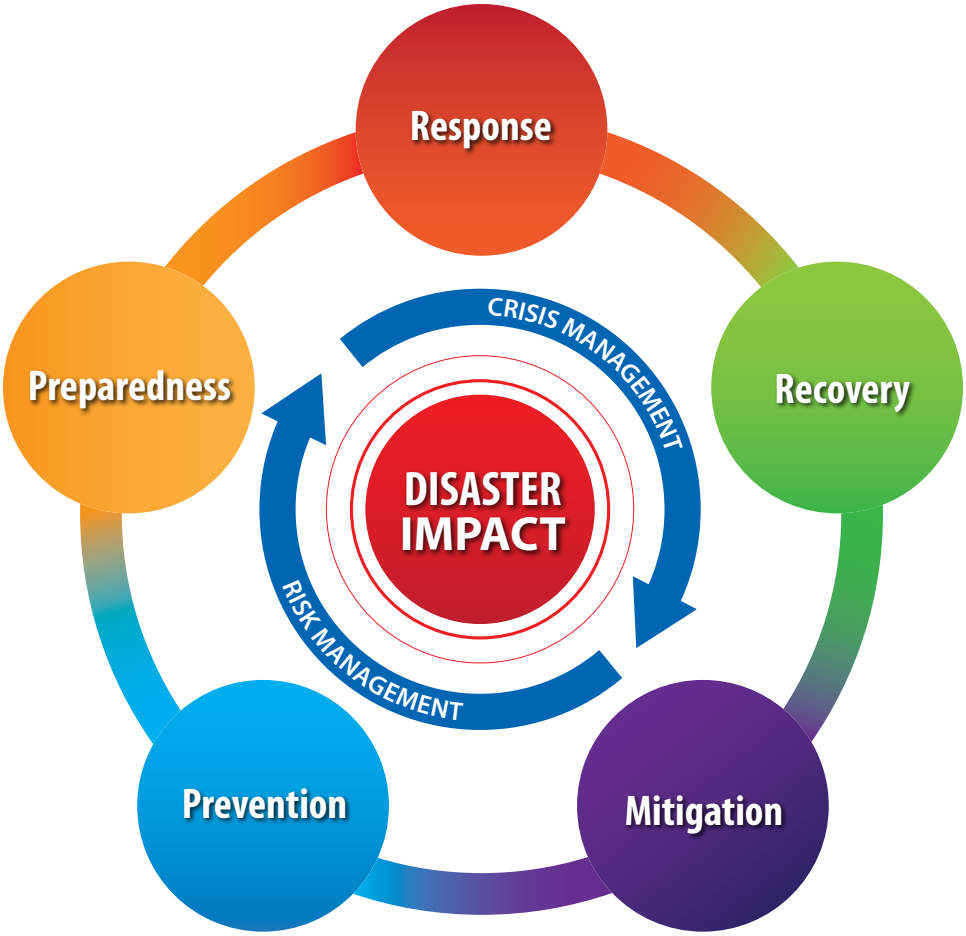

Figure 4: The Essentials of the CDM Approach

The CDM Approach focuses on risk and stems from the compelling need to gain further understanding of the root causes and underlying factors that lead to disasters. Risk management has introduced structured and systematic processes and procedures for examining risks and for making decisions based on them. The innovative application of the generic methodology of the risk management process to disaster management presents a more comprehensive approach to understanding the nature of disasters, preventing their harmful effects, as well as seeking opportunities from their occurrences. In the context of the CDM Approach, it promotes coordination of functions and the diverse skills and disciplines and allows communities to undertake risk management activities that have been considered as the domain of engineering experts.

Critical pre-event activites should include

A. Advocacy, Policy Legislation

B. DRM (including DRR) funding

C. Organisational Structures, Coordination Mechanisms, Management

D. Leadership

E. Risk Management Process

F. DRM Planning at all levels

G. Capacity Building/ Training (inc. Professional Accreditation)

H. Research/Information Management

I. Early Warning System/ Possible Evacuation

J. Public Awareness/ Education

K. DRM/DRR Monitoring/ Evaluation (M+E)

There are four phases in the CDM Approach: mitigation; preparedness; response; and recovery. The first two phases occur prior to a hazardous event, while the latter two occur after the hazardous event. Appropriate actions at all points in the CDM cycle will lead to greater preparedness, better warnings, reduced vulnerability or the prevention of disasters during the next repetition of the cycle.

The CDM Approach conceptualises the disaster management phases as a spiral that tries to illustrate the disaster cycle vis-à-vis the state or level of development, with its direction indicating a fall or rise in development. The CDM Approach also facilitates better understanding of the relationship between disaster, its various phases, environmental degradation, and sustainable development. The Approach requires disaster mitigation programmes to be made an integral part of developmental programme. At the same time, efforts to enhance the capacities of communities and coping systems at various levels and sectors towards self-reliance and self-sufficiency in managing disasters effectively must also be sustained. Understanding and identifying various types of vulnerabilities (human, social, economic, and environmental), as well as the nature of natural hazards are essential components of the CDM Approach.

Each of the four phases is described below; effective disaster risk reduction is schematized in Figure 5. With reference to the disaster management phases, programme and activities on prevention, mitigation and preparedness comprise the development portion, while relief and recovery comprise the humanitarian assistance portion with preparedness linking both types of efforts.

RISK MITIGATION: During the risk mitigation phase, structural and non-structural measures are undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards. While the adverse impacts of hazards often cannot be prevented fully, their scale or severity can be substantially lessened by various strategies and actions. Management activities in the disaster risk reduction phase encompass engineering techniques and hazard-resistant construction, as well as improved environmental policies and public awareness, hazard vulnerability and risk assessment. Measures taken during this phase also address preventing natural or man-caused events from giving rise to disasters or any emergency situations. This phase also includes various processes, policies and actions designed to limit the potential impacts of climate change, climate variability, extreme events and sea level rise.

PREPAREDNESS: Preparedness activities are geared towards minimizing disaster damage, enhancing disaster response operations and preparing organizations and individuals to respond. They also involve planning, organizing, training, interaction with other organizations and related agencies, resource inventory, allocation and placement, and plan testing.

RESPONSE: Actions in this process are carried out in a disaster situation with the objective to save life, alleviate suffering and reduce economic losses. The main tool

in response is the implementation of plans which were prepared prior to the event. Response activities are post activities geared towards:

- Providing emergency assistance
- Reducing probability of additional injuries or damage
- Speeding recovery operations
- Returning systems to normal level

If emphasis and resources are placed on activities in the mitigation/adaptation and preparedness processes, then it is envisaged that the response processes will be less, as will the quantum and nature of the damage.

RECOVERY: During the Recovery Processes, activities are geared towards the restoration of basic services and the beginning of the repair of physical, social and economic damage e.g. lifelines, health and communication facilities, as well as utility systems. The recovery process also includes efforts to reduce disaster risk factors.

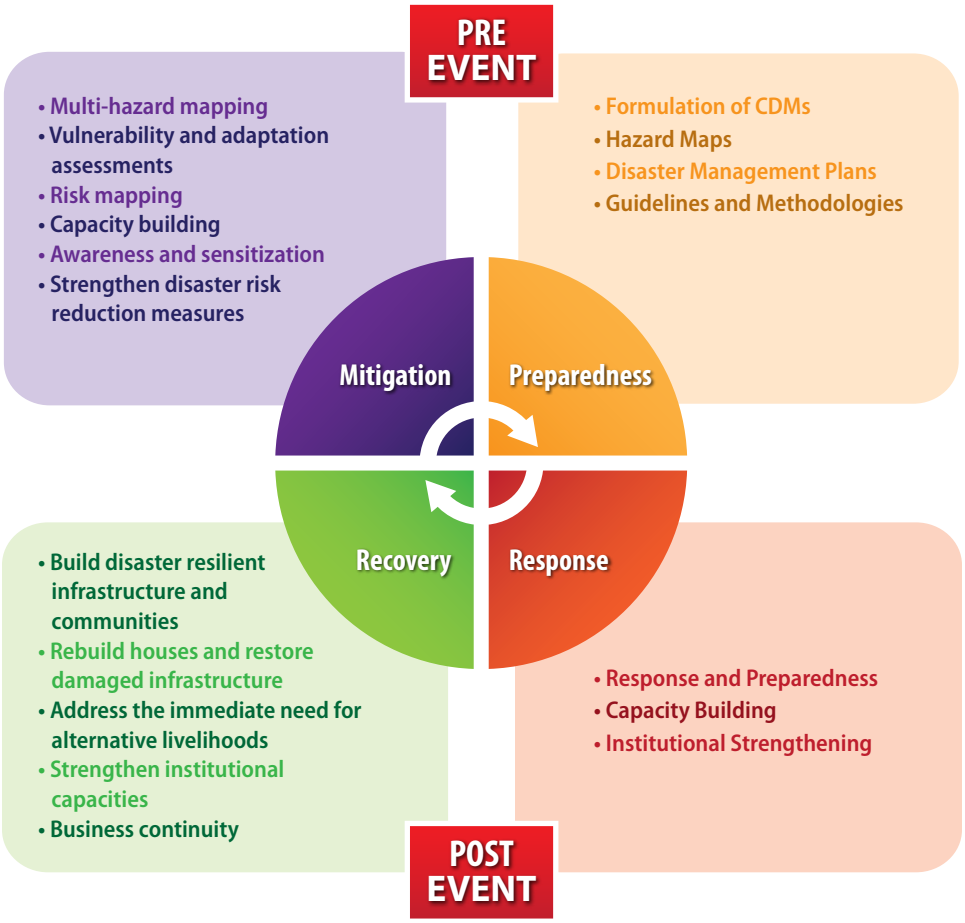

Figure 5: The Phases of the CDM Approach

1.2.1.2 CDM Enabling Framework

The CDM Policy requires an enabling environment at the national level that will allow key players – communities, government and the private sector – to engage in risk reduction behaviour.

The CDM Enabling Framework is captured by 5 elements, all of which have to be present for the Policy Framework to be successful. These are:

1. **A robust governance system** is imperative for CDM delivery at the national level. Since CDM is constructed on inter-sectoral, inter-agency and multi-level platforms, a sound governance mechanism, ideally supported by legislation, has to be in place to facilitate the necessary coordination and monitoring and evaluation of the CDM processes and outcomes. Further, the National Disaster Office, being the key driver of the process, needs to be adequately staffed with the relevant expertise to effectively support community and national CDM efforts.
2. There has to be **a culture of planning and implementation** of CDM that promotes public sector, private sector, and civil society partnerships in support of community initiatives.
3. **Strategic partnerships** between different levels of society and between national and regional and international levels are important if the CDM is to be an effective mechanism and tool.
4. Poverty reduction **strategies**, MTESP, PSIPS, sustainable development goals and the Millennium Development Goals should be **used as points of entries** for incorporating CDM into national programmes.
5. The use of an **ICT Platform for information sharing**. The ICT Policy for CDEMA[10] should be referenced in the use of ICT platforms for CDM.

1.2.1.3 CDM Mainstreaming Framework

For the CDM Policy to be effective, Participating States will be required to implement a CDM Mainstreaming Framework, which together with the CDM Enabling Framework will be incorporated into the appropriate phases of the CDM Process.

The Mainstreaming Framework involves two processes. The first is disaster risk assessment (DRA) which analyzes the hazards of a place together with the risks to exposed elements. The second process will use the results of the risk assessment to enhance the development planning analysis, therefore leading to better design and prioritization of interventions that are intended to reduce risks to and vulnerability of exposed populations and property.

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[10] CDEMA will make optimal and appropriate use of available Information and Communications Technologies (ICTs) to strengthen regional, national and community level capacity for mitigation, management, and coordinated response to natural and technological hazards, and the effects of climate change.

The framework for mainstreaming DRR as shown in Figure 6 below, illustrates how DRA will be undertaken and how the results of the assessment will be used to enhance all aspects of the planning process: from visioning, analysis of the planning environment, derivation of development potential and challenges and their translation into the corresponding goals, objectives and targets, and finally to the specification of the appropriate strategies and programs, projects and activities (PPAs).

The PPAs derived from the plan formulation stage are the main inputs that Participating States will include into the succeeding phases of the development planning process, namely, investment programming, budgeting, project evaluation and development, project implementation and monitoring and evaluation (represented by the orange boxes). The PPA outcomes and impacts that are determined during and post implementation should be able to reveal reduction in risks to population and property by increasing resilience or reducing vulnerability of these elements at risk.

An effective CDM Enabling Framework in combination with an equally robust CDM Mainstreaming Framework and adequate attention being paid to critical pre-event activities - mitigation and adaptation, and preparedness - will lead to a reduction in the likelihood and impact of a disaster happening and a post disaster recovery process with a greater possibility of "building back better".

It must be remembered that the earlier focus of the National Disaster Offices in Participating States was primarily on responding to disasters. With the paradigm shift to CDM, the role of disaster managers has expanded immensely. The expanded role also means an integration of a number of disciplines and expertise drawn from different areas.

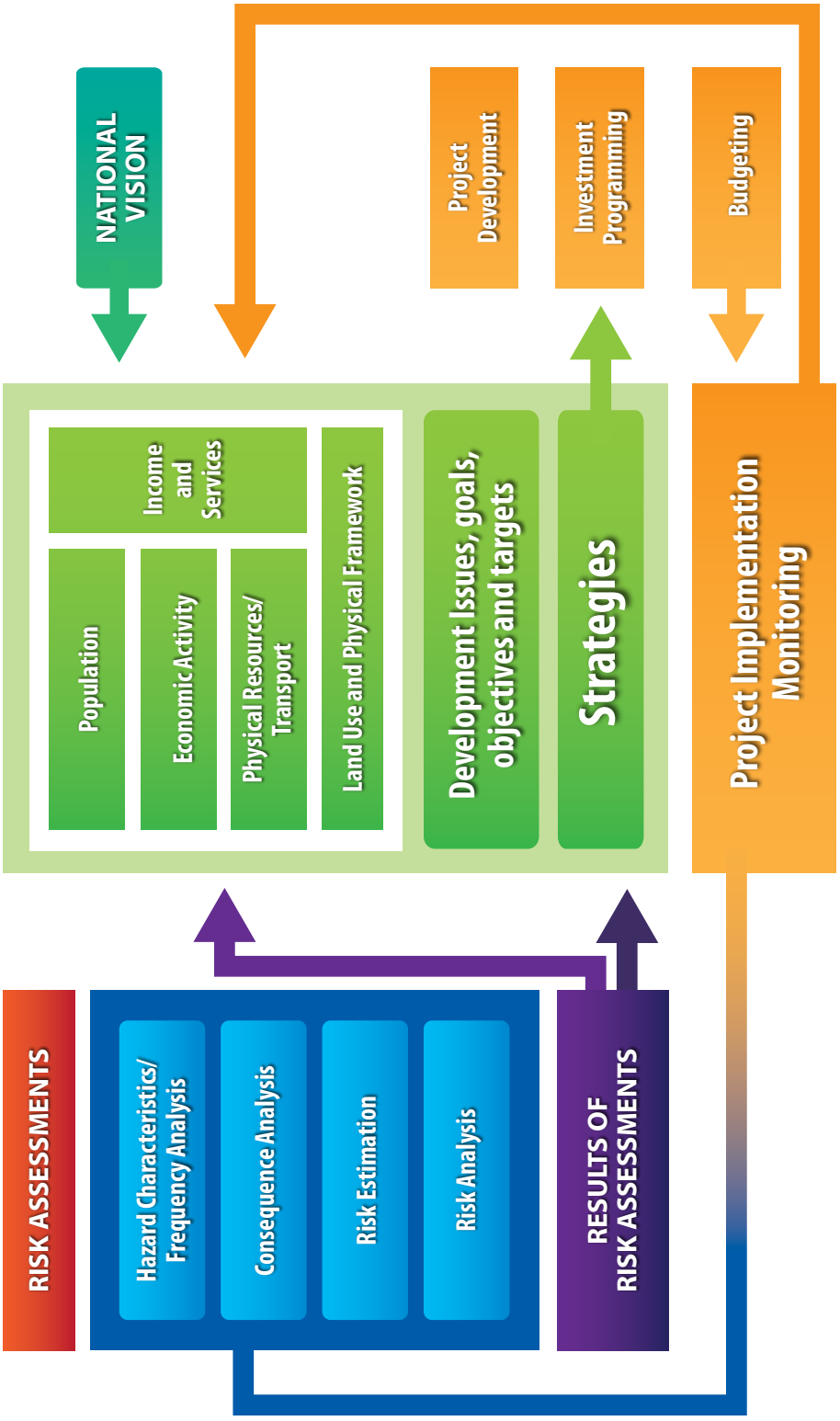

Figure 6: The CDM Mainstreaming Framework

1.3 The Model National CDM Policy

A national policy on CDM is necessary to provide a framework for the integration of disaster management into all policies, programmes, plans and on-going activities at national and community levels. It sets out the broad goals and guiding principles for Comprehensive Disaster Management, and thus informs the development of national CDM Strategies and multi-year work plans.

The Model National CDM Policy will be guided by the following working parameters:

1. The policy will be implemented within the framework of amended existing legislation.
2. The policy does not require renegotiations or amendments to existing strategic partnerships that NDOs have with public and private sector agencies and other civil society organisations at the national level; and other regional and international organisations.
3. New funding requirements will result from the policy, but reallocations of existing sectoral budgets may be considered together with new funding sources.
4. The policy will be endorsed by national Cabinets of Ministers and other stakeholders.
5. The policy will contribute to the PS's government's priority or directives in disaster risk reduction and adaptation to climate change.
6. The policy will have a cost neutral impact on households.

The Model National CDM Policy is based on a number of on-going initiatives taking place nationally, regionally and internationally. Importantly, the policy advances the development of communities and vulnerable groups, and the creation and maintenance of sustainable livelihoods; the strengthening of existing organisational and institutional structures that will help to reduce risks and vulnerabilities; and the use of knowledge and information for sound decision making. A policy statement comprises a vision statement, the purpose and outcomes. A template for consideration by Participating States is provided in 1.3.1 below.

1.3.1 Policy Statement

This Model National CDM Policy is designed to achieve sustainable development within the Participating State. In keeping with this overarching goal and cognisant that: (i) the appropriate approach for the CDM Policy must combine the community (bottom-up) and the national (top-down) levels; (ii) there must be a long-term, programmatic, and whole-of government approach; and (iii) that knowledge management and institutional support and capacity are required.

The vision for a Model National Comprehensive Disaster Management Policy is:

Sustainable development through safer and resilient communities

The Policy Goals are:

1. To promote sustainable development through the reduction of disaster risks and vulnerability of society to natural and man-made hazards

2. To integrate CDM into all aspects of development and at levels of everyday activity by the entire society

The Policy Objective is:

To strengthen national and community level capacity for adaptation, management, and coordinated response to natural and technological hazards, and the effects of climate change

This Policy Objective as articulated above can be achieved through the following:

1. A CDM Approach that -
    a. Facilitates the promotion of the culture of prevention and the incorporation of disaster management in development planning;
    b. Promotes coordination of functions and diverse skills and disciplines; and
    c. Allows communities to undertake risk management activities.

2. A CDM Enabling Framework that –
    a. Provides a robust governance system with supporting institutional arrangements to facilitate the necessary coordination and monitoring of the CDM Approach;
    b. Promotes public sector, private sector and civil society partnerships in support of community initiatives in disaster risk reduction;
    c. Facilitates strategic partnerships between different levels of society and between national, regional and international levels;

d. Promotes the use of poverty reduction strategies, and other such development instruments as points of entries for incorporating the CDM Approach into national development; and

e. Utilizes an ICT platform for knowledge sharing and information management purposes.

3. A CDM Mainstreaming Framework that provides the necessary tools and methodologies for -

   a. Analysing the hazards of a place together with risks to exposed elements; and

   b. Using the results of risk assessments to enhance better design and prioritisation of interventions that are intended to reduce risks and vulnerabilities of exposed populations and property.

The Model National CDM Policy is governed by a number of principles. These Principles address the specific gaps and challenges identified by the CDEMA Participating States in 2010 during the collection of CDM Regional and National Baseline Data for the Enhanced CDM Strategy and Programming Framework 2007-2012. The Principles apply at all levels - nationally, regionally and internationally, with priority given to national and local actions in support of community-based needs and initiatives.

The Principles are grouped into three (3) main categories:

i. Building resilience at all levels of society;

ii. Integrating and mainstreaming Comprehensive Disaster Management into all national development plans and instruments, including the MTESP, PSIP, PRSP, and MDGs;

iii. Furthering knowledge management and exchange in order to strengthen capacities for sound and timely decision making.

1.3.2 Policy Strategy

Central to this Policy is the belief that (a) disasters must be characterised as a development issue and (b) the response should be a holistic and proactive approach which focuses on disaster risks and the vulnerability of communities, and emphasizes multilevel, cross-sectoral, and multidisciplinary coordination and collaboration among all stakeholders in addressing gaps in the disaster management cycle. This approach has now evolved to be called the CDM Approach for purposes of this Policy.

The strategy emerging from this belief is the implementation of the CDM Approach, and the facilitation of the CDM Enabling Framework and CDM Mainstreaming Framework. A number of priority areas are deemed essential for implementing this Policy. These include inter alia:

1. Establishing the **appropriate governance system** – organisation, institutional, policy and legal frameworks – that will support the CDM process and contribute to the mainstreaming of CDM in national planning and development.
2. **Implementing structural and non-structural measures** to limit the adverse impact of natural hazards, environmental degradation and technological hazards.
3. **Building resilience and reducing risk at all levels** of society and all phases of the CDM process through analysis and evaluation of all risks and hazards; and the use of such analyses and information in the design of targeted and appropriate intervention, programmes and projects.
4. Planning for **effective preparedness, response and recovery** by integrating and mainstreaming CDM into national development and planning.
5. **Creating knowledge and information** and using this for education and public awareness. The information should also be used for monitoring, forecasting, and early warning scenario development; situational analyses and the creation of crisis maps.

1.3.3 Strategic Interventions

These are specific tasks that should be considered in attaining the goals and objectives of this Model National CDM Policy and for achieving the priorities identified above at 1.3.2 (1-5).

1.3.3.1 Establishing the appropriate governance systems

a. Review, re-structure and strengthen existing NDOs in the areas of human, physical, technical and financial resources to support the CDM Approach[11] and to facilitate and coordinate the CDM Enabling and Mainstreaming Frameworks.

b. The composition, roles and responsibilities of stakeholders in the National Emergency Operation Centres should be clearly defined and established in legislation.

c. Review existing CDM oversight mechanisms, e.g. the national disaster management technical and advisory council, to ensure the inclusion of all sectors that are involved in some aspect of disaster risk reduction, and climate change adaptation.

[11] The CU has already embarked on a consultancy to develop a model organisational structure that is appropriate for the implementation of CDM in Participating States.

d. Re-valuate existing National Disaster Bill in light of this CDM Policy

e. Implement the establishment of the Inter-ministerial Committee on Disaster Management as recommended in the Model National Disaster Bill.

f. Establish clear Monitoring, Evaluation and Reporting mechanisms so that all stakeholders involved in CDM are held responsible for their individual roles and responsibilities and to allow for regular reporting and evaluation of their activities.

1.3.3.2 Implementing structural and non-structural measures to mitigate and reduce risks at all levels of society

a. Formulate a National CDM Strategy and Multi-Year Work Plan that encompasses the CDM Approach and identifies the necessary elements of a CDM Enabling and Mainstreaming Frameworks.

b. Provide training and sensitisation on the CDM Approach and the CDM Mainstreaming tools as described in this CDM Policy.

c. Develop guidance notes and other such related tools to provide inter-sectoral and inter-agency training in the principles of CDM and the tools used in the CDM Approach – e.g. hazard characterisation; profiling vulnerable groups; hazard mapping, risk assessments and analyses – and how the resultant analyses and information should be incorporated into development planning; project development and management; impact assessments, etc.

d. Formulate or strengthen existing national CDM Policies/Policy Statements based on the principles and guidelines presented in this CDM Policy.

e. Facilitate the review of existing sectoral policies to incorporate relevant elements of this CDM Policy.

f. Enact appropriate CDM Legislation or incorporate, where feasible, the appropriate CDM principles and processes in the Model Disaster Management Bill.; develop standards and regulations to implement the legislation.

g. Review existing planning and impact assessment legislation and incorporate elements from the CDM Enabling and Mainstreaming Frameworks.

h. Implement and/or facilitate sensitisation, awareness and public education on the CDM Approach to all levels of society.

i. Establish and/or strengthen ICT and other infrastructure for fact based decision-making.

1.3.3.3 Building resilience and reducing risk at all levels of society and all phases of the CDM process

a. Develop guidelines for communities to formulate risk reduction and resilience plans, as well as provide training in the use of these guidelines.

b. In collaboration with the appropriate sectors and agencies, facilitate the mapping and profiling of vulnerable groups, areas and sectors.

c. Facilitate the training of communities and NGOs in community risk assessments, capacity appraisals and in mitigating these risks.

d. Work with the National Climate Change Committee and other relevant entities to assist communities in undertaking small-scale physical mitigation activities.

e. Where technical capacities exists, work with community groups and NGOS, through demonstrative mitigation activities protecting common assets (roads and pathways, shelters, retaining walls, water catchments, etc) to develop core preparedness skills, monitoring of hazards, disaster planning, and early warning.

f. Assist sectoral agencies with reviewing or developing sectoral strategies and plans so that disaster risk reduction becomes one of the central elements of these plans and strategies.

g. Where feasible, institutionalise training resources and capacities or develop a cadre of national consultants to whom these services can be outsourced.

1.3.3.4 Integrating and mainstreaming CDM into national development and planning

a. Develop and apply necessary tools and operational guidelines to support the CDM Mainstreaming Framework[12].

b. Facilitate cross-sectoral training in the use of the aforementioned tools and operational guidelines.

c. Identify capacities of all stakeholders for mainstreaming CDM, and facilitate training as appropriate and specific to stakeholder groups.

d. Facilitate the incorporation of hazard and risk management in legislation governing project appraisals.

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[12] The CDEMA CU has developed 5 Thematic Guidance Notes; The Caribbean Development Bank and the Caribbean Community (CARICOM) have developed a sourcebook on the integration of natural hazards into environmental impact assessment; and IDB has developed an overview risk management checklist to support analysis and assessment of natural hazards and related risks in its lending programmes. As part of its Global Disaster Reduction Mainstreaming Initiative (see below), UNDP, in collaboration with UN/ISDR, has produced guidance on the integration of disaster risk reduction into the UN system's country programming tools, the Common Country Assessment (CCA) and the United Nations Development Assistance Framework (UNDAF).

e. Facilitate the institutionalization of disaster risk reduction in all national development instruments, e.g. MTESP, PRSP, PSIPS, etc.

1.3.3.5 Creating knowledge and information and using this for education and public awareness

a. Create and/or enhance an electronic platform[13] for all stakeholders and the general population to capture, organize, share and reuse the knowledge generated in the area of disaster management

b. Develop multimedia and multi-language campaigns to promote CDM processes.

c. Identify and/or develop a process framework[14] for incorporating local knowledge with scientific knowledge.

1.3.4 Sustainability

Key to achieving the goals of the national CDM Policy is the development of a national CDM Strategy and Plan of Action. Chapter 2 of this document provides guidance and a template for the formulation and implementation of National CDM Strategies. It is envisaged that the National CDM Strategies will focus on some of the critical gaps and challenges, particularly,

i. The establishment/enhancement of an appropriate governance structure that will allow for more formalised and legislated mechanisms for inter-sectoral and inter-agency coordination, reporting, and monitoring.

ii. The decentralisation of some of the CDM processes – preparedness and disaster risk reduction – to other more appropriate sectoral agencies, NGOs and CBOs.

iii. The convergence of the national climate change adaption policy, legislation and work programme with that of similar CDM instruments.

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[13] The portal should capture the products of the programme such as disaster management plans, various manuals, documents, reports, trained human resources roaster, etc.

[14] Example of a Process Framework for Integrating Local Knowledge into Scientific Knowledge

Step 1: Engage the community in discussions surrounding their vulnerability to environmental hazards and the benefits of indigenous and scientific knowledge.

Step 2: Identify underlying vulnerability factors and the contribution of each factor to a community's current vulnerability to environmental hazards.

Step 3: Identify indigenous and scientific strategies used in both past and present for disaster risk reduction.

Step 4: Draw together the information from the previous three steps to develop an integrated strategy for disaster risk reduction. The expected impact upon vulnerability levels can then be considered in relation to previous exposure, thereby determining the likely impact of an integrated strategy. Adapted from Integrating indigenous and scientific knowledge bases for disaster risk reduction in Papua New Guinea by Jessica Mercer, Ilan Kelman, Sandie Suchet-Pearson and Kate Lloyd.

iv. Creation of joint work programmes for building resilience and disaster risk reduction at the community level and for mainstreaming CDM. A number of national instruments that provide relevant points of entry – MTESP, PSIP, social development programmes etc., - have been mentioned previously.

For this CDM Policy to be effective and useful, a reporting mechanism should be established for NDOs to report on the progress achieved in the implementation of the National CDM Policy and Strategy and the targets achieved. It is recommended that this National Report be submitted to Cabinet for review and endorsement.

Adapted from Integrating indigenous and scientific knowledge bases for disaster risk reduction in Papua New Guinea by Jessica Mercer, Ilan Kelman, Sandie Suchet-Pearson and Kate Lloyd.

CHAPTER 2

Templates for the Preparation Of A National CDM Strategy and Multi-Year Work Programme

2.1 How to use this Guidance Note

This Chapter is intended to provide guidance to NDOs who wish to embark on the preparation of a National CDM Strategy and/or Multi Year Work Programme. The CDM Strategy (CDMS) and Multi Year Work Programme will be guided by the Model National CDM Policy. Some countries have already prepared CDM Strategies and/or Country Work Programmes based on the Enhanced CDM Strategy and Programming Framework 2007-2012. These countries may wish to use this Guidance Document to enhance and/or update their existing instruments so that they are aligned with the Vision, Goal and Outcomes of the endorsed Model National CDM Policy.

It is worth noting that the Model National CDM Policy and this Guidance Document are to be used as frameworks and templates to assist in the formulation of national CDM Strategies and Work Programmes. Each country will be guided by its own national circumstances and the resultant policy where available; the strategy and country work programme must reflect and acknowledge these national circumstances, conditions and needs. Some countries may choose to use the CDM Model National Policy to guide the process of national strategy and country work programme formulation, while others may wish to initiate the process by first developing a National CDM policy. There may also be other countries, who because they already have a suite of policy statements and strategies, may wish to move directly into developing their multi-year work plans. Whichever path a country chooses, fundamental to the process will be the establishment of an inter-sectoral and multi agency committee to assist in the policy/strategy formulation and in ensuring that extensive consultations are held before and after the policy and/or strategy are formulated. The multi-year work programme is best developed after the strategy has been completed and there is sufficient knowledge and agreement of the various actions that stakeholders have identified as being necessary to achieve the vision, goals and outcomes of the National CDM Policy.

The Guidance Note is organized in three (3) major parts:

The first part of this document highlights preliminary activities which need to be undertaken as part of the strategy formulation process. There are three (3) main activities that need to be undertaken in this phase: Initiation, Visioning/Policy, and Situation Analysis. The Situation Analysis stage will include, inter alia, agency mapping; reviewing existing reports related to previous disasters and reports from CDEMA; hazard and risk mapping; scenarios and assumptions planning; identification of Cluster/Sectors; roles and responsibilities of every agency involved; resource mapping; preparing contact lists; commodity tracking; priority preparedness actions; and gap identification.

The second part of this Guidance Note documents processes for strategizing and developing the CDMS and the MWP; i.e. prioritising the goals and selecting the strategies that will give effect to the goals and ultimately the vision of the CDMS. The MWP will identify actions over a five-year period that must be undertaken for achievement of goals. The MWP will also identify broad based budgets for implementing each of the actions; the agencies responsible, the targets to be monitored to ensure that the Strategy is on schedule, scope, and cost; and the MER processes.

The third part provides the necessary templates to assist Participating States in preparing the CDMS and the MWP.

3.4 The National CDM Strategy (CDMS)

The CDMS is a road map that provides long-term guidance for CDM implementation in the Participating States. Based on a sound analysis of the existing gaps, the CDMS aims to trigger a process of change in disaster reduction, emergency response and recovery. In addition, the CDMS aims to facilitate fulfilment of the commitments made by the Participating States through various regional and international conventions and forums towards DRR. Of particular relevance is the CDM Enhanced Strategy and Programming Framework 2007-2012, and the Hyogo Framework of Action (HFA) 2005-2015.

The CDMS is also guided by the UN "Cluster approach" principle and recommends creation of equivalent working groups, drawing members from relevant institutions and agencies in the Participating States for coordination of efforts. The responsibility for CDM, in reality, does not solely lie with one institution. Instead, it is shared with various institutions, as well as individual citizens of the country. Further, to be implemented successfully, the Strategy depends upon the trust, understanding, acceptance and ownership of all the stakeholders. Indeed, the process of developing the Strategy is an important vehicle for building that trust and understanding.

The CDMS can also be viewed as, "a management framework of institutional structures and operational mechanisms and a package of recommendations that will enable the Government and people of the CDEMA Participating States to significantly reduce vulnerability to hazards of all kinds by employing a well coordinated series of initiatives with the intention of supporting sustainable development of minimizing losses to hazard impacts through the concepts and principles of CDM"[15]. The Strategy, which is developed through extensive review and consultation, will assist the PS in managing all hazards through all phases of the CDM process – prevention, response and recovery – by all sectors of the population.

The CDMS will articulate and recommend the direction and emphasis required for CDM in PS. It will also provide a variety of options to strengthen existing institutional structures and to introduce operational mechanisms so that appropriate levels of

[15] Michael, Franklyn (2004). Comprehensive Disaster Management Strategy (CDMs) (medium-term) 2005-2009 – Anguilla.

risk reduction and preparedness are achieved. Strategy components are consistent with the principles and good practices identified and justified by CDEMA in the CDM Enhanced Framework, and also enshrined in the CDM Model Policy.

The strategy will be formulated only after broad consultation with the Government and other responsible agencies (private sector, civil society, NGOs, community based organisations) to ensure that it is appropriate to the Participating States' capacities, it is realistic, and attainable. The CDMS must also contribute to the Participating States' commitment to adopt CDM[16] and the CDM Model Policy.

The CDMS requires that the Participating States adapt a broader approach to disaster management: Vulnerability and risk reduction must be integrated into all national sectoral policies, national development objectives and development planning.

All major public and private sector projects should include appropriate vulnerability assessments and subsequent risk reduction components.

The CDMS must propose a range of specific recommendations to assist the process over five years.

Existing institutional disaster management structures will require refinement to meet the requirements of CDM. It may therefore be necessary for the CDMS to recommend a revision to the purpose, structure, composition, priorities and modus of the NDO and its sub-committees. These will include further involvement of non-governmental organisations (NGOs), the private sector, representatives of civil society in the disaster management system and structures for all phases of the CDM process.

The mandate, staffing and resource levels of the NDO should be revised to enable the organisation to champion, co-ordinate and advance the objectives of the CDMS. The annexes should present descriptions of NDO functions necessary for championing and facilitating CDM.

Changes to the way in which disaster management is structured and organised must be underpinned by specific disaster legislation. CDEMA has developed frame model legislation that must be adapted to the Participating States local environment and needs. Actions pertaining to the adaptation and adoption of disaster management legislation are integral to the CDMS.

There are limits to the extent and pace of change that can be introduced over the five-year lifecycle of the CDMS. All CDM objectives and the strategy's recommendations cannot feasibly be introduced at once. Instead, implementation must take place through a phased series of discrete, but related activities over the five-year period. However, this will depend on time requirements and the availability of financial and human resources.

[16] The management of all hazards through all phases of the disaster cycle – prevention, mitigation, preparedness, response and recovery – by all sectors of the population.

Attaining all CDM objectives will be costly. Although investments in disaster mitigation and preparedness are cost effective in the long term, it is doubtful that funds will be immediately available for all investments required. These include, for example, long-term structural mitigation projects, the construction of critical infrastructure, the acquisition of emergency equipment and supplies, investments for additional staff, training and public awareness programmes.

In recognition of these realities, the CDMS will present a series of practical recommendations and activities that may be realistically implemented within the five-year time span. Precisely which recommendations are to be conducted when, and which are prioritised, will depend on commitments, resource availability and technical capacities. As such, the CDMS should be considered as guidance to a desired state of affairs (i.e. appropriate Comprehensive Disaster Management). The annexes should provide indicative cost estimates.

Supporting individual strategic actions mean:

i) Coordinating the actions of various partners and stakeholders with the objective of avoiding repetition and producing synergy by promoting a culture of sharing information, knowledge and experiences;

ii) Assisting institutions, government or non-government, in the planning and execution of DRM initiatives by offering technical backstopping;

iii) Conducting peer review of the action plan and joint initiatives;

iv) Helping the respective agencies to mobilize funds for DRR plans and programmes; and

v) Publicising successful works done by individual agencies through professional networks, media and other channels.

Building support for the Strategy will be achieved through:

i) Using transparent and inclusive mechanisms in coordination, planning and implementation;

ii) Adopting informed, rational and consultative decision-making process;

iii) Building relationships with stakeholders based on the principles of equal opportunity and comparative advantages;

iv) Raising awareness on CDM issues at all levels, including decision makers and politicians; and

v) Conducting regular public hearings.

Monitoring and Evaluation (M&E) of the progress made will include:

i) Developing an M&E plan for implementation and

ii) Allocating necessary budgets for M&E and enhancing the capacity of respective agencies to conduct M&E of DRR plans and programmes.

During the process of preparing the CDMS and the MWP, stakeholders involved in the process will also benefit from a suite of other outcomes, including:

a) The establishment of coordinating mechanisms for CDM at the community, district and national levels;

b) Documentation on disaster history and responses to the disasters in the Participating State;

c) Review of all CDM documentation;

d) Prepared list of agencies and partners involved in CDM in the Participating State;

e) Identified roles of every agency involved in CDM in the Participating State and in implementing the CDMS and MWP;

f) Hazard and risk mapping; and identification and profiling of gender disaggregated vulnerable groups;

g) Scenarios and assumption planning, especially at the community level;

h) Agency focal persons established;

i) Where appropriate and necessary, DRR plans developed for productive sectors; and

j) Close coordination and sharing of resources with the climate change constituency in the Participating States.

2.2.1 The CDMS Planning Cycle

The **CDMS PLANNING CYCLE** has been conceived as a guiding framework within which a number of tools can be applied. The cycle consists of six (6) distinct steps, each involving a number of sub-steps. The main steps in the CDMS Planning Cycle are described below and schematised in Figure 7.

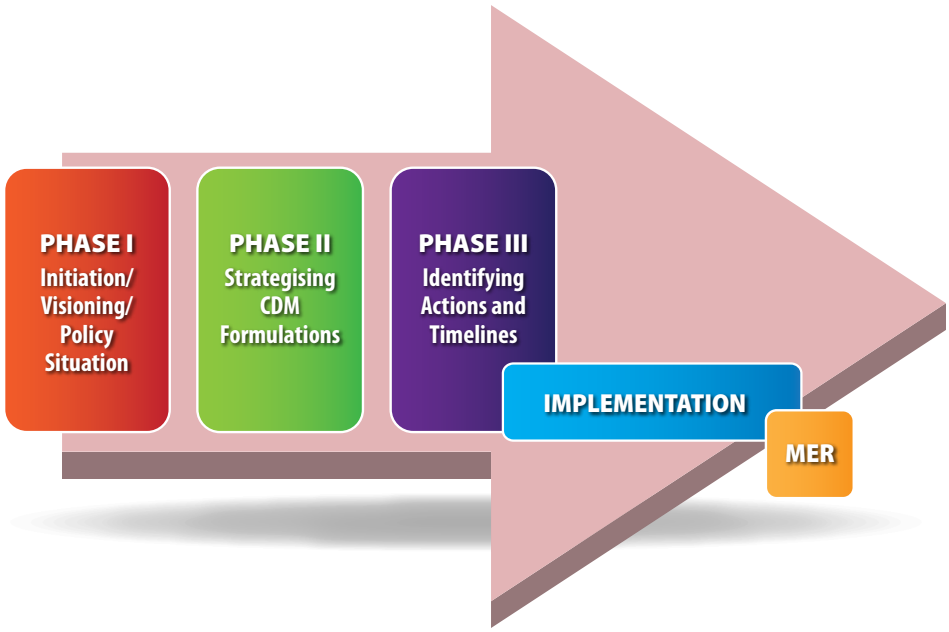

Figure 7: Sequential Steps for the CDM Strategy Planning Cycle

Before the Planning Cycle is activated, the parent Ministry of the NDO should spearhead the formulation of the CDMS by creating an inter-sectoral and multi-agency Steering Committee (SC) that provides oversight and guides the process of its formulation. The SC should consist of senior level government officials from the various Ministries that are routinely and actively involved in DRR planning and management. It is suggested that, at least the following Ministries and bodies, be represented in the SC:

- NDO
- Planning and Economic Development
- Finance
- Environmental Management and Climate Change
- Health
- Social Development
- Education
- Communications and Works/Public Works

- National Security
- Tourism
- Agriculture
- Meteorological Office

Moreover, it is recommended that the SC include representatives from Town and Village Councils, strong and well respected community based organisations and NGOs, and representatives of the private sector, especially those involved in the food distributive trade; utility companies and the like.

Considerations when establishing the CDMS Steering Committee (SC)

a) The SC together with the NDO is an essential forum for planning and implementing the CDMS as an important component of overarching national development planning.

b) The SC can take many forms, building on existing structures and can be combined with other committees as seen fit. What is pivotal, is that there is some type of structure that takes on the function of the SC and which is gender sensitive. The SC must have a clear mandate, as well as support and endorsement.

c) One of the major characteristics of SIDS is that there are inadequate persons to undertake all the routine work that requires completion. Most of the agencies, which will be called upon to participate in CDM, are also involved in other types of committees and there must be concern for fatigue from committee meetings. Very often, individuals participating in these Committees expect to be paid for attending meetings. In other cases, persons expect to be provided with refreshments at meetings. Therefore, the NDO must either ensure that there is funding to make such provisions or establish, from the very on-set, what the rules of engagement will entail.

d) The SC must have a well articulated Terms of Reference. The SC, in most cases, will not have any executive power and its actions will require further review and endorsement by higher levels of government to allow for implementation. The Terms of Reference should be submitted for official government approval and support. The Terms of Reference should include an overview of the responsibilities and powers of the SC, as well as core values and principles (e.g. transparency, accountability, equity, gender balance, etc.), key areas of activity, structure and membership, as well as structures and approaches for stakeholder engagement. They should also outline administrative procedures for work planning, reporting, meeting arrangements, consultations, communications, as well as information management and financing.

e) Members of the SC should be appointed by and be delegated the power to represent their respective institution (organisations or departments).

Recommended Documents to be Consulted

- Model CDM Policy and Adaptation Guide
- CDM in the Caribbean Baseline Study
- Enhanced CDM Strategy and Framework
- CDEMA ICT Policy
- CDM Regional Baseline Data – Country Specific Data and Country Analysis
- Regional Baseline Report
- Draft National Disaster Management Bill
- Disaster Management Regulations – subsidiary legislation
- Terms of Reference: Model National Disaster Management office organisational structure for advancing comprehensive disaster management (CDM)
- National Performance Measurement Frameworks for the National CDM Strategy, vols. I and II

Recommended Documents to be Consulted (con't)

- RBM Approach Facilitators' Manual
- The Mainstreaming Climate Change into Disaster Risk Management for the Caribbean Region (CCDM) Project
- Regional Monitoring, Evaluation and Reporting Framework
- Regional Monitoring, Evaluation and Reporting Manual and Tools
- National Hazard Mitigation Policies
- National CDM Strategy
- National Work Programmes
- Hyogo Framework for Action

As such, they are the channel of communication between the SC and their institutions, and should be obligated to follow protocols on reporting to their institution and relaying comments and input to the SC. Continuous representation by the same person is important in order to ensure consistency and to avoid interrupting progress of processes. Members of the SC at the national level should be high-level representatives of their institutions (directors or senior officers of departments) in order to facilitate and give weight to outcomes of deliberations of the SC. However, in order to free up time for busy directors, institutions should be able to delegate specific technical or administrative SC duties (e.g. participation in sub-committees or specific processes) to lower level staff who will report to their directors.

f) In many instances the NDO will not have any legal mandate to ensure that the SC operates according to the Terms of Reference. Experience has however shown that, signing a tri-partite Memoranda of Understanding between the SC Members and the Lead Agency will help to minimise any future conflicts and ensure that that is a clear understanding of the expected roles and responsibilities of each stakeholder.

g) Inasmuch as a SC is established, there must also be a lead agency to steer the process of formulating the CDMS and MWP and to act as the secretariat to the SC. It is envisaged that the NDO will invariably be chosen to act as the lead agency. The NDO will have to undertake a preliminary stakeholder analysis in order to identify/confirm the agencies that should be represented in the SC; the NDO also has to spearhead an on-going sensitisation and public awareness campaign on CDM in general and the CDMS in particular.

The 6-Point CDMS Planning Cycle:

Diagnosing

Collect and analyse information on the current situation, and the problems encountered. The information will pertain to different aspects of disaster management and climate change adaptation in the Participating State. Only the relevant information for the required decision needs to be collected. secondary information should be used wherever possible.

In general, it is recommended that at least the following documents be reviewed, where available, to highlight key best practices, identified gaps and major lessons learnt. Many Participating States also possess other documents that should be reviewed. These may include budget addresses, economic development plans etc.

Visioning

In this step, stakeholders identify the core problem(s) and the cause and effects of this problem(s). They then develop a future vision for Comprehensive Disaster Management based on mitigating this core problem(s).

Visions are, by definition, forward looking and should involve thinking about possible futures that take account of how things may have changed at the end of the targeted period. In other words, the vision should limit itself to a clear description of the desired future state for CDM in the PS. Based on the clear articulation of a vision, and analysis and extrapolation of key trends (scenarios), strategies can then be developed to achieve the vision. It is crucial that all stakeholders agree on the visions. Only then, will it be possible to begin to negotiate meaningfully over strategies for achieving the vision.

Strategising

Based on the visioning undertaken in Step 2 and with information generated in Step 1, stakeholders begin developing different scenarios to achieve the vision. A frame strategy is developed for each of the scenarios. These strategies and scenarios are then reviewed and analysed to see which will best achieve the vision given all the challenges, constraints and opportunities faced at that time. Sometimes, the original vision may have to be altered in order to achieve a good fit with a strategy.

Inappropriate Strategies can result from:

- Lack of creativity in identifying scenarios and strategies;
- Failure to identify a single strategy to achieve the vision;
- Some of the more vociferous stakeholders controlling the process and identifying strategies that do not cover a wide spectrum of the stakeholders.

Planning

Once the vision and the best strategy have been agreed upon, the planning process can begin. Typically, planning should take place for the entire strategy. There is however, sufficient experience from SIDS to show that planning will normally take place for a sub-set of the entire strategy. The Plan will include a budget, schedule, roles and responsibilities, targets and indicators for monitoring and evaluation.

Implementation

The Plan is implemented in a coordinated manner. There are often obstacles to implementation brought about by a lack of the necessary technical skills, inadequate funding, inadequate mechanisms for coordinating the roles and responsibilities of the various stakeholders, to mention a few. These issues should however, have been considered in Step 3 where different scenarios were created to achieve the vision but within the scope of foreseen challenges, constraints, and opportunities.

Monitoring and Evaluation and Documentation

In this step, stakeholders ensure that the actions identified in the Plan are carried out at the scheduled time together with the identified budget and responsibilities. It also provides stakeholders the opportunity to reflect on the progress achieved in order to determine if the original plan needs refinement, and in order to identify lessons learnt while implementing the plan. These lessons will provide opportunities for further refining the strategy and/or for informing further refinement of existing policy, institutional and legal frameworks for water resources management.

Each Phase is divided into sub-phases. Activities in each of the sub-phases take place either before, during or at the end of each of the six steps. These sub-phases are schematized in Figure 8 and Table 2 below and described in further detail in the preceding pages.

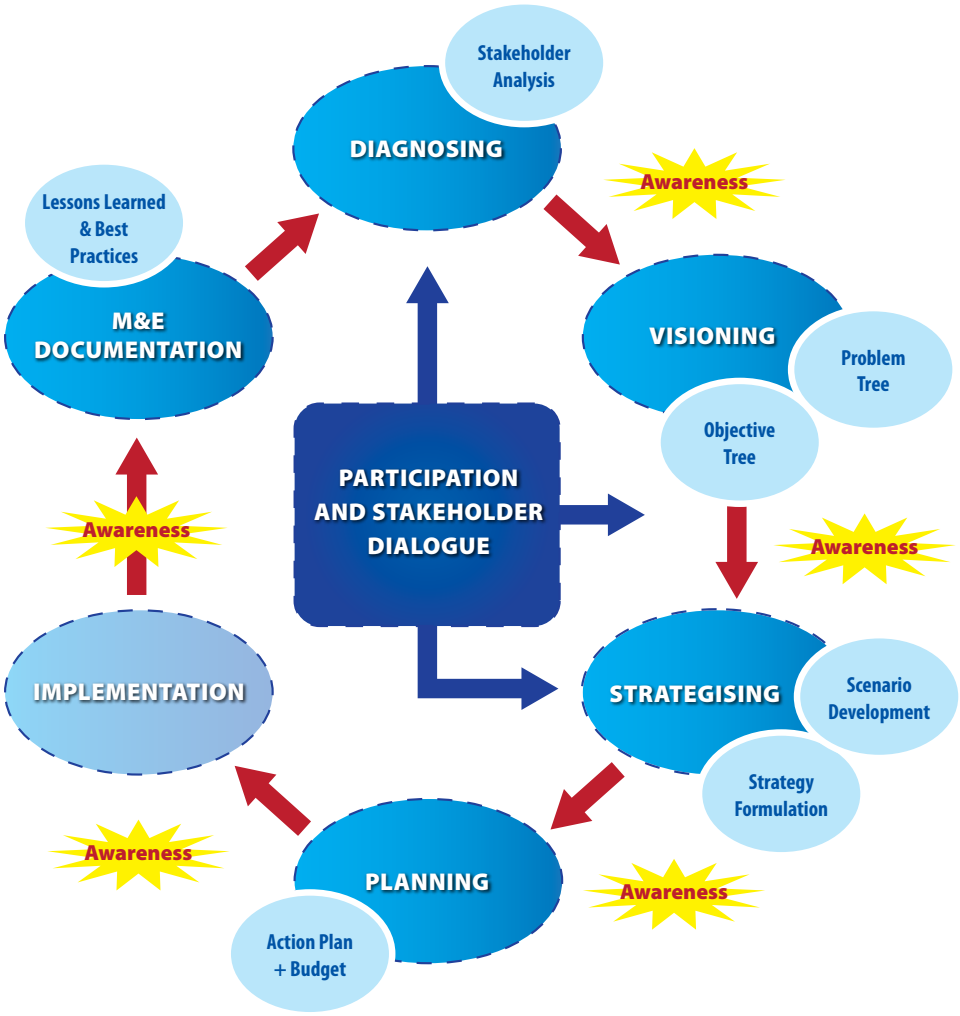

Figure 8: Schema of the CDMS Planning Cycle with Sub-Phases

2.2.2 Key Tools for Drafting the CDMS

The steps are based on the CDMS planning cycle provided in Table 2 below.

Sub-Phases	Steps In CDMS Planning Cycle
• Identifying Lead Agency – NDO • Stakeholder Analysis – to determine membership of Steering Committee • Establishing a Steering Committee • Situation Analysis social [including gender, poverty] economic, environmental [including ecosystems approach]	1. DIAGNOSING
• Problem Tree Analysis – cause and effects of root problems • Objective Tree Analysis – main causes are converted into objectives of strategy	2. VISIONING
• Scenario Development – selection of possible development options through • Framework Identification – how to respond to the root problems – mainstreaming and enabling environments	3. STRATEGISING
• Content Identification – possible development options * Action Plan and Budget * Responsibility Matrix * Scheduling * Monitoring targets and indicators	4. PLANNING 5. IMPLEMENTATION
• Capacity Development – strengthening capacity of agencies to implement CDMS • Institutional Strengthening – developing capacity of institutions to plan and manage DRR and CDM • Strengthening the enabling environment – recalibrate policy and legal instruments for CDM • Data Collection and Monitoring • Lessons learned and Best Practices	6. M&E AND DOCUMENTATION

Table 2: Sub-Phases in the CDMS Planning Cycle

2.2.2.1 TOOLS FOR DIAGNOSING AND VISUALISING

Stakeholder Analysis

Conducting a well-structured stakeholder analysis is key to the CDMS Planning Cycle. Quite often, the wrong stakeholders or too many stakeholders are selected and slow decision-making adversely impacts the process. While there is no rule on an appropriate number of stakeholders, the primary stakeholders should be limited and should be kept to those who can influence and help to move the process forward. Other stakeholders identified in the stakeholders Grid – see Figure 4 - can be brought in as necessary. Various tools are available for the conduct of Stakeholder Analysis. The grid may help to organise the brainstorm, or provide a structure for feedback.

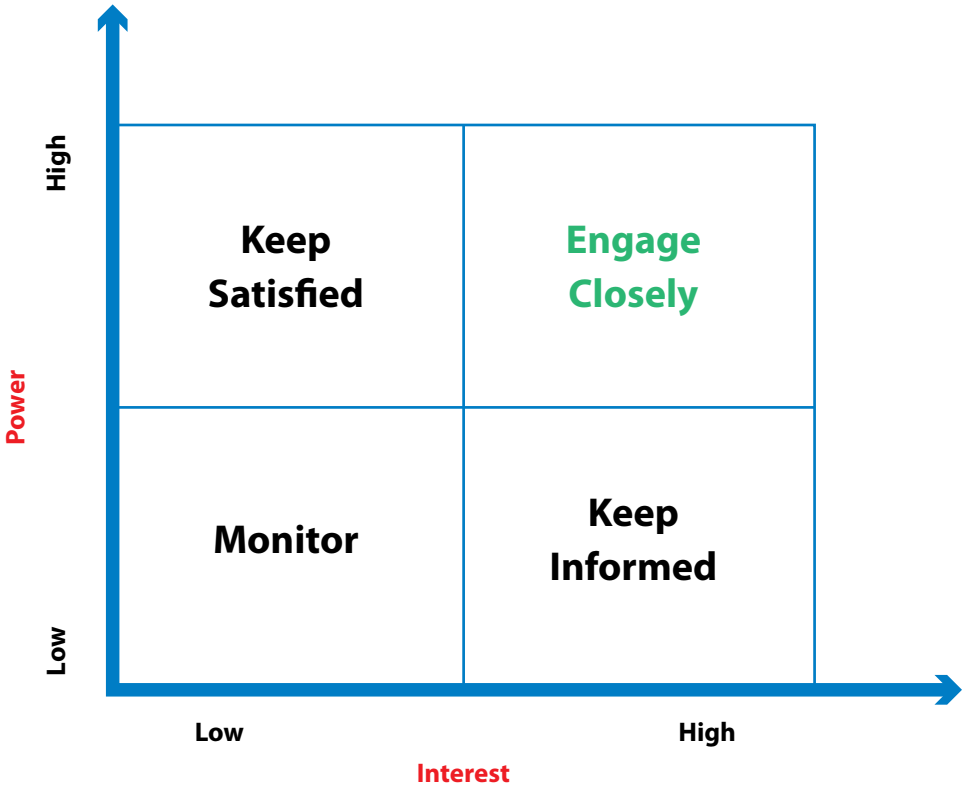

Figure 9: Stakeholder Grid

The choice of individuals representing the Agencies is equally important. In some instances, it will be necessary for individuals to be of a policy making or executive level, while in other instances they can be of a technical level. All individuals must however, be able to take decisions on behalf of their Agencies or have access to other individuals who can make the necessary decisions.

Using the grid in Figure 4, the stakeholders can be organised in different matrices according to their interest and power. 'Interest' measures to what degree they are likely to be affected by the strategy or policy change, and what degree of interest or concern they have in or about it. Conversely, 'power' measures the influence they will have over the strategy or policy, and the degree to which they can help to achieve or block the desired change.

Stakeholders with high power, and interests aligned with CDM, are the people or organisations that are important to fully engage and bring on board. If desirous of creating policy change, these people are the targets of any campaign. At the very top of the 'power' list, will be the 'decision-makers'; usually members of the government. Beneath these, are people whose opinion matters – the 'opinion leaders'.

Stakeholders with high interest but low power need to be kept informed but, if organised, they may form the basis of an interest group or coalition that can lobby for change.

Situation Analysis

A situation analysis describes the problem or situation to be addressed. This is essentially an analysis of the context, independent of the specific stakeholders. A situation analysis involves an analysis of the key factors affecting proposed targets including direct threats, indirect threats, opportunities, and enabling conditions. Each factor can typically be linked to one or more stakeholders - those individuals, groups, or institutions that have an interest in or will be affected by the proposed strategy.

Different tools are used in the conduct of the situational analysis. The more common tools are the conduct of a SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis, and a Social, Technological, Economic and Environment Analysis (STEEP). Irrespective of the types of tools used, the data that is collected needs to be complete and updated so that the analysis is accurate and provides the necessary information for undertaking the Problem Tree Analysis. There is a minimum data set on various aspects of CDM that needs to be collected. It is also necessary to identify linkages to other national processes and or plans such as, inter alia, Poverty Reduction Plans, Public Sector Investment Plans, and Integrated Development Plans.

Field experience has shown that a situation analysis for CDM should not take more than one to two months. So as not to waste time, an initial step in performing a CDM assessment is to review all the documents that are available in CDEMA and in the NDOs. Additionally, only the minimum information for the required decision should be collected; secondary information should be used where possible. Further, experience has shown that a situation analysis can often be carried out in several steps of increasing complexity, with a first 'back of an envelope' assessment helping to give guidance to subsequent more detailed and focused information collection.

Problem Tree Analysis

Problem tree analysis helps to find solutions by mapping out the anatomy of cause and effect around an issue. It is an important step in the Planning Cycle. It helps to clearly articulate the problem and to identify the causes and effects of the problem. This in turn will assist in identifying different responses (scenarios) to mitigating the problems and then selecting the best response or combination of responses.

The Problem Tree analysis can be undertaken by the Steering Committee in collaboration with the NDO. The most suitable modality will be a workshop, with a trained facilitator. This workshop does not require more than three (3) days in duration. The data generated in the situation analysis provides relevant background information for mapping out the causes and effects of the problem.

Objective Tree Analysis

The analysis of objectives follows the problem analysis. This analysis includes:

The translation of the negative situations in the problem tree into a realised positive state (the objectives) for example, "lack of understanding of the natural processes and human activities that contribute to vulnerability and community resilience" is converted into identification and assessment of risks and vulnerabilities from natural hazards'; verification of the hierarchy of objectives; and visualisation of means-end relationships in a diagram.

The different objectives sharing the same nature can be considered to be clusters. The clustering should be based on common sense and should be of practical value in the planning stage. The clusters should be neither too broadly nor too narrowly defined. It concerns the identification and selection of potential alternative strategies towards realising all or some of the objectives. Clusters are made based on similarity of possible future activities, region or required expertise.

Out of the clusters, one (and often more) will be chosen and used as the strategy to achieve a future desired situation: the aims of the intervention. Based on a number of criteria, the most relevant and feasible strategy is selected. Unrealistic objectives should be excluded and objectives that certainly should be included require prioritisation. The criteria should be chosen and agreed upon by all stakeholders.

Examples of possible criteria:

- Priorities of beneficiaries
- Donor policy
- Expertise and experience of implementing organisation
- Fit with mandate of government authorities, national development plans, sectoral policies
- Duration of implementation
- Contributions of different stakeholders
- Urgency - available human resources, institutions

- contribution to overall goal and vision
- available budget
- inter-linkages between clusters
- positive/negative side-effects
- gender and social diversity aspects
- sustainability - likelihood of success fit with mandate of implementing organisation
- fit with mandate of implementing organisation

The Follow-Up to the Objectives Tree Analysis is:

a) Developing the logical framework

b) Assessing and documenting assumptions and risks

c) Defining targets and benchmarks

d) Operational planning: Budgeting

e) Operational planning: Who does what?

Undertaking the Problem and Objective Tree Analysis in a workshop environment, together with the SC and NDO, also ensures that there is buy-in, consensus building, and a common understanding of all the important stakeholders. It is worth mentioning that other stakeholders, as appropriate, who were identified in the original stakeholders' grid but were not invited to be part of the SC, should also be invited to participate in the Problem Tree Analysis.

The Problem and Objective Tree Analyses will help to develop a clear vision. Based on the clear articulation of a vision, and analysis and extrapolation of key trends (scenarios), strategies can then be developed to achieve the vision. It is crucial that all stakeholders agree on the visions; only then will it be possible to begin to negotiate meaningfully over strategies for achieving the vision.

Information generated during the Situation Analysis and the Problem Tree Analysis is then used to identify likely scenarios for achieving the Vision. The scenarios developed are, in turn, used as a basis for identifying potential strategies and plans, to achieve the vision, that are feasible and desirable in terms of equity, economic efficiency and environmental sustainability; and that can be undertaken without further burdening the existing institutional and organizational framework.

2.2.2.2 TOOLS FOR STRATEGISING

Scenario Development

Scenario development is a very useful tool for strategizing, as it provides the NDO and the SC the opportunity to collaboratively first identify a number of scenarios for achieving the vision and then based on further brainstorming to identify the best scenario[17]– based on the critical drivers - that will achieve the vision. The best scenarios will then be used to develop the CDMS. The decision-making in identifying the best scenario and strategy, is more "scientific", in that all stakeholders go through a process of analysis and evaluation.

Scenario planning is about assessing and evaluating a problem from different perspectives and collectively with all stakeholders. It also focuses on creating options and subsequently choosing the best option(s).

Scenario development is a six-step process which includes:

a) Identifying what is driving (generally grouped into social, technological, economic, environmental, including climate variability/change and vulnerability, and political) the vision – referred to usually as the external factors

b) Deciding which of the drivers are critical but uncertain – referred to usually as the internal or local factors

c) Constructing a scenario matrix

d) Developing the scenarios

e) Evaluating scenarios

f) Choosing the scenario which will best deliver the vision.

[17] There can be a number of best scenarios

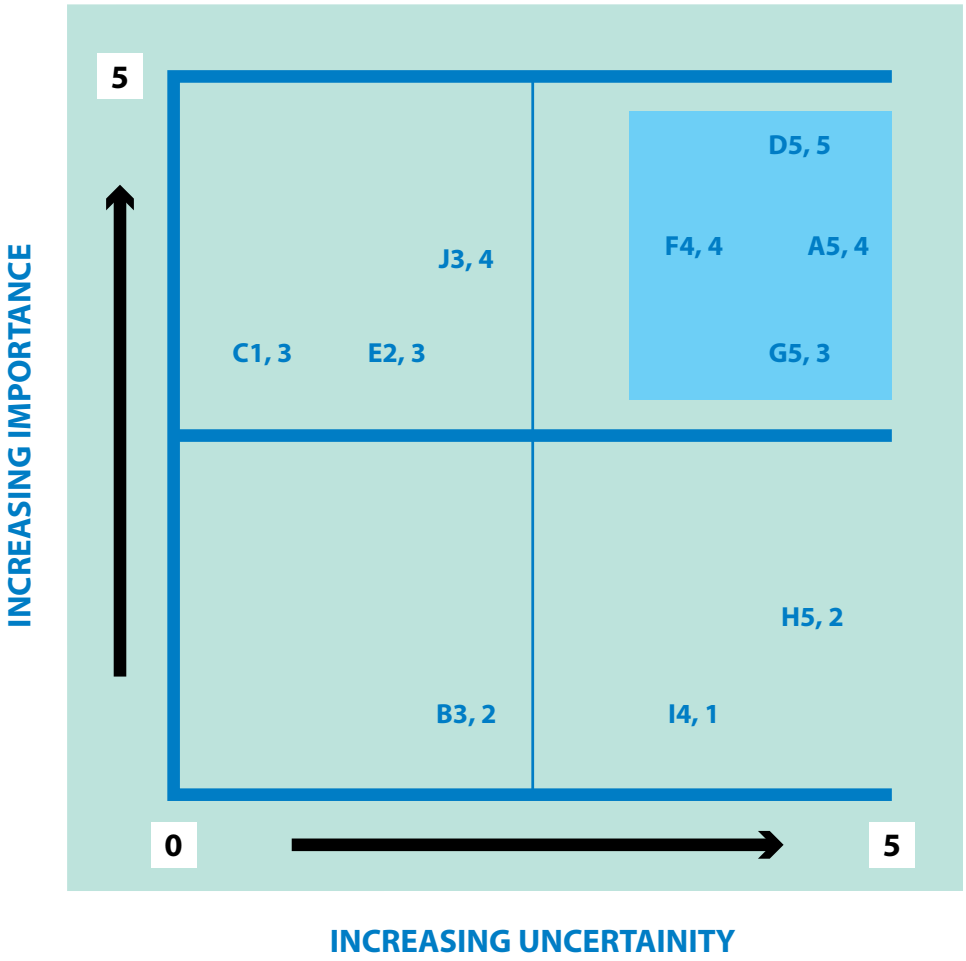

Figure 10: Ranking and Placing of Factors in Scenario Grid

The first two steps in the process are critical i.e. identifying and then prioritising the factors. This should be done in a workshop environment with all participants asked to identify not more than five (5) of these factors. The factors are then grouped together where applicable so as to reduce the number of factors. Experience shows that there should not be more than ten (10) factors. A list of criteria can be developed to rank the factors – sensitivity analysis or the ranking can be undertaken as a brainstorming session.

The final list of factors is then ranked further on a scale of 1 to 5. Each of factors has to be ranked for IMPORTANCE AND UNCERTAINTY.

The factors are:

i) Plausibility – The selected scenarios must be capable of happening.

ii) Differentiation – They should be structurally different and not simple variations of the same theme.

iii) Consistency – The combination of logics in a scenario must ensure that there is no built-in internal inconsistency that would undermine its credibility.

iv) Decision-Making Utility – Each scenario should contribute specific insights into the future that will help to achieve the vision for water resources management that had been identified in the earlier step.

v) Challenge – The scenarios should challenge the conventional wisdom of the Lead Agency and the SC about the future of water resources management at whichever level the strategy is being planned for.

The attempt to carefully and systematically select the best strategy will reduce the chances of formulating responses that end up being unsustainable; not cost effective; not environmentally sensitive or that cannot be implemented by an Agency with its existing capacity or with minimal enhancements to its capacity. This is particularly important in SIDS, where disaster management agencies or agencies mandated with disaster management responsibilities, are usually understaffed; involved in a portfolio of activities that often surpasses their human resource capacities and often do not receive sufficient allocations from the national budgets to undertake CDM type activities.

2.2.3 Preparation of the CDMS

SStrategy formulation is about charting a strategic direction, identifying broad groups of actions, and identifying how the challenges in achieving the vision will be mitigated. The detailed planning of activities does not take place in this phase.

The objective is to develop a set of broad strategies that will allow the vision to be achieved under different scenarios, and subsequently select the best strategy for further development. Strategising is a complex process that requires good facilitation. Workshop participants must be helped in working through the logic of their suggestion and in reformulating them if necessary. If advanced tools such as cost benefit analyses and modelling are used, they should be completed before the workshop and the results presented, in appropriate forms, at the workshop.

The broad and long term nature of a strategy will necessitate many activities. These activities will have to be prioritised and implemented over an extended period of time. Generally, only limited financing is available and additional funding must be sourced. Consequently, the prioritising of activities becomes important.

The specific objectives of preparing a strategy are:

- An agreed prioritisation and scheduling of activities that constitute the strategy and which taken in totality will achieve the vision;
- Developing implementation for different sets of activities and source funding; and
- Ensuring stakeholder ownership of the strategy while implementing different activities.

Up until the stage of preparing the strategy, the CDMS Planning process involved all the stakeholders in a series of workshops. Planning however, requires specialised skills - resource mobilization, project implementation and management, etc. - and from this point onward, only a sub-category of the stakeholders will be involved. A key challenge is therefore to keep all stakeholders engaged through effective communication, while creating robust plans and mobilising the resources to implement them.

A consultation with all stakeholders is recommended before the Strategy is finalized. The consultation should also include representatives of management from the NDO and agencies represented in the SC. Where appropriate, community representatives should also be consulted. Discussions during the consultation should also focus on whether the strategy can be improved by further mitigating the risks, reducing costs, refining outcomes, and internalizing the externalities. It will also be useful to refer to lessons learnt from other similar projects and programmes.

Normally, all activities cannot be implemented simultaneously. Therefore, in order to ensure that the Strategy Document does not remain on the shelf, the strategies are prioritized according to a checklist with a view to identifying those that can be implemented in the short term without significant additional resources. This will also give the NDO and SC sufficient time to mobilize the necessary resources for the other components of the Strategy. Activities should therefore be identified for the short term (3-5 years) and medium to long term (more than 5 years).

Some activities identified in the Strategy may best be undertaken through regional approaches. These activities include training, preparation of harmonized policies and legislation, and resource mobilization. Even if activities are removed from the national strategies, there may be elements of the regional approaches that will require national implementation. These activities must be included in the Strategy and in the implementation plans.

2.2.4 Format and Content of CDMS

The strategy should contain the following sections:

a) A list of key terms, concepts and acronyms

b) A background

c) Introduction

d) The structure of the CDMS

e) The scope of the CDMS

f) Principles guiding the CDMS

g) Goals of the CDMS

h) Objectives of the CDMS

i) The components of the CDMS

j) Strategic interventions of the CDMS

k) Indicative priority actions and timeframe

l) Risks and Assumptions

m) Supporting elements of the CDMS

n) Monitoring and Evaluating the CDMS

o) Financing Options for the CDMS

p) Annexes

q) List of supporting documents

r) Logical Framework or RBM Framework for the CDMS

The template for the CDMS is provided in **Annex 7**

2.3 Multi-Year Work Plan

Once the best scenarios and strategies for each of the scenarios have been chosen, a Multiyear Plan (MYP) is subsequently developed. The MWP is a costed action plan with a concrete timetable that will identify all the activities, programmes and interventions that will be undertaken to achieve the goals identified in the CDMS. The MYP can be for the entire Strategy, or for one or more actions.

A CDMS of any kind is usually resource intensive. Experience from SIDS show that a more sustainable route will be to choose those actions that can be implemented with minimum additional resources, requirements, and which have the capacity to win political support as well as support from the resource users. It also gives the NDO and the SC additional time and space to mobilize resources to implement the rest of the Strategy. In this case, the Planning Preparation becomes iterative, with lessons learnt and best practices from the implementation of the earlier plans being used to guide the development of future plans.

Creating the MYP means designing major programs of activities to achieve the objectives and goals, possibly with a multi-year horizon. A viable budget must also be developed as part of the action plan. The Multiyear Workplan needs to identify activities and interventions that are affordable, practical, and timely. The Plan must assign responsibilities and identify the necessary resources, with timelines. Most importantly, the MYP must be reviewed regularly and revised accordingly.

All stakeholders should be informed of the Plan. It is best to communicate directly rather than uploading the Plan on to a website. The Plan must also be monitored and updated regularly. This is undertaken by defining clearly the metrics that will allow assessing the degree of completion of the Plan. Dates must also be set for completing each activity.

The Plan must identify funding strategies, a communications programme, a programme and budget for capacity building activities, and a monitoring and evaluation programme. A good monitoring and evaluation (M&E) system can make the difference between a CDMS MYP that has an impact on the ground and one that remains merely an expression of good intentions. It is a crucial part of laying the

foundation for better decision-making on an on-going basis and creating a strategy that can adapt to changing needs and conditions.

The planning has to be followed rapidly by implementation in order to become useful. The planned changes in institutional structures, human resource development, improved knowledge and a capability to use the appropriate management instruments, will have to be implemented together with changes flowing from improvements in CDM. The Plans will have budgetary and legal implications and proposal documents setting out the required changes and likely costs should also be included in the plan. This should allow budget allocations/changes to be made and help in the consideration of any support required from external funding Agencies and donors.

Final action plans need political agreements on the highest political level, acceptance from the main stakeholders, and raising the necessary financial means from domestic and international resources.

The Multiyear Work Plan is derived from the CDM Strategy, which provides the road map for undertaking CDM activities at the national level for a fixed period of years. The template is provided in **Annex 8.**

GLOSSARY

Adaptation

Potential or capability of a system to adjust to climate change, including climate variability and extremes, to moderate potential damages, to take advantage of opportunities, or to cope with consequences (Smit and Pillifosova, 2001[18])

Anthropogenic hazards

Hazards created through the action of human activity (Baastel-ESL and Stakeholders).

Capacity

Physical social, economic and institutional means as well as skilled personal or collective attributes such as leadership and management (ISDR).

Capacity building

Efforts aimed to develop human skills or societal infrastructures within a community or organization needed to reduce the level of risk. Capacity building also includes development of institutional, financial, political and other resources, such as technology at different levels and sectors of the society (ISDR).

CARICOM Framework

Ten year (2005-2015) Framework for disaster management in the Caribbean presented through CDERA at the World Conference on Disaster Reduction (WCDR), Kobe, Japan, 2005 as input to the Hyogo Framework for Action 2005-2015 (Baastel-ESL).

CDM Approach

Seamless set of activities and interventions from preparation to mitigation, planning to prediction and response to recovery. Every activity is directed towards a never-ending quest for disaster resilience. It is an ongoing process by which governments, businesses, and civil society in CDEMA Participating States plan for and reduce the impact of disasters, react during and immediately following a disaster, and take steps to recover after a disaster has occurred.

CDM Enabling Framework

Provides the necessary institutional, policy and legislative framework; a robust governance system, and a suite of decision support systems that will allow key players – communities, government and the private sector – to engage in risk reduction behaviour.

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[18] Smit, B and O Pillifosova (2001), "Adaptation to Climate Change in the Context of Sustainable Development and equity" In Climate Change 2001: impacts, adaptation and vulnerability, Chapter 18, Cambridge, Cambridge University Press.

CDM Mainstreaming Framework

Provides the necessary tools and guidelines for mainstreaming CDM into national development and sectoral plans. It also provides important toolkits for mainstreaming cross-sectoral issues such as gender, vulnerable groups and poverty into disaster management programmes and interventions.

Community Resilience

The ability of a community to cope with the effects of a hazardous event through appropriate prevention, mitigation, preparedness, and response and recovery mechanisms (adapted from WCDR).

Comprehensive Disaster Management

The management of all hazards through all phases of the disaster management cycle – prevention and mitigation, preparedness, response, recovery and rehabilitation – by all peoples – public and private sectors, all segments of civil society and the general population in hazard prone areas. CDM involves risk management and integration of vulnerability assessment into the development planning process (CDERA 2001, 2006).

Coping Capacity

The means by which people or organizations use available resources and abilities to face adverse consequences that could lead to a disaster. In general, this involves managing resources, both in normal times as well as during crises or adverse conditions. The strengthening of coping capacities usually builds resilience to withstand the effects of natural and human-induced hazards (ISDR).

Disaster

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

Disaster Risk Management (DRM)

The systematic process of using administrative decisions, organization, operational skills and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the impacts of natural hazards and related environmental and technological disasters. This comprises all forms of activities, including structural and non-structural measures to avoid (prevention) or to limit (mitigation and preparedness) adverse effects of hazards (ISDR).

Early Warning

The provision of the means by which people or organizations, use available resources and abilities to face adverse consequences that could lead to a disaster. In general, this involves managing resources, both in normal times as well as during crises or adverse conditions. The strengthening of coping capacities usually builds resilience to withstand the effects of natural and human-induced hazards (ISDR).

Hazard

A potentially damaging physical event, phenomenon or human activity, that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation (ISDR).

Types Of Hazards In The Caribbean

Type	Hazards	
Geological Hazards	1. Earthquake 2. Tsunami 3. Volcanic eruption	4. Landslide 5. Dam burst 6. Mine fire
Water & Climatic Hazards	1. Tropical cyclone 2. Tornado and hurricane 3. Floods 4. Drought	5. Hailstorm 6. Cloudburst 7. Landslide 8. Heat & Cold wave 9. Sea erosion
Environmental Hazards Biological	1. Environmental pollutions 2. Deforestation 3. Human / Animal Epidemics 4. Pest attack 5. Food poisoning	6. Desertification 7. Pest Infection 8. Weapons of Mass Destruction
Chemical, Industrial and Nuclear Accidents	1. Chemical disasters 2. Industrial disasters	3. Oil spills/Fires 4. Nuclear
Accident related	1. Boat / Road / Train accidents/air crash Rural/ Urban fires Bomb /serial bomb disasters blasts 2. Forest fires	3. Building collapse 4. Electric accidents 5. Festival related 6. Mine flooding

Mainstreaming

Making Comprehensive Disaster Management an integral dimension of the policies and programmes in all political, economic and societal spheres (BCPR).

Mitigation

Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards (ISDR).

National Disaster Organization (NDO)

The NDO in this document refers to the national organizational structure of agencies linked for the purpose of attending to the legal, institutional and operational aspects of disaster prevention and mitigation, preparedness and response and recovery and rehabilitation. The NDO is generally headed by the Prime Minister or Head of Government in the respective country (Baastel-ESL).

National Disaster Management Office (NDMO)

The NDMO is the government agency with focal responsibility for disaster management in the respective country. It is generally headed by the country's Disaster Coordinator (Baastel-ESL).

Preparedness

Activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations (ISDR).

Prevention

Activities to provide outright avoidance of the adverse impact of hazards and means to minimize related environmental, technological and biological disasters (ISDR).

Public Awareness

The processes of informing the general population, increasing levels of consciousness about risks and how people can act to reduce their exposure to hazards (ISDR).

Recovery

Decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk (ISDR).

Relief / response

The provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short-term, or protracted duration.

Resilience / resilient

The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures.

Risk Reduction (DRR)

The systematic development and application of policies, strategies and practices to minimise vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) adverse impact of hazards, within the broad context of sustainable development (ISDR).

Sustainable Development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of "needs", in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and the future needs (Brundtland Commission, 1987).

Vulnerability

The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards (ISDR).

Annexes

Annex 1

Stakeholder Toolkit

A stakeholder is a person or group associated with a problem or issue. Stakeholders can be organisations, groups, departments, structures, networks or individuals, but the list needs to be pretty exhaustive to ensure that no one is left out. Primary stakeholders are those ultimately affected, either positively (beneficiaries) or negatively. Secondary stakeholders are the intermediaries. This definition of stakeholders includes both winners and losers, and those involved or excluded from decision-making processes. Key stakeholders are those who can significantly influence, or are important to the success of an intervention. Various tools are available for the conduct of Stakeholder Analysis. The following table may help to organise the brainstorm, or provide a structure for feedback.

Public Sector Stakeholders	Private Sector Stakeholders	Civil Society Stakeholders
Examples		
Ministries/Departments	Corporations and Businesses	NGOs
Local Government	Business Associations	CBOs
Commissions	Professional Bodies	Media
Statutory Bodies	Financial Institutions	Churches
Agency responsible for Gender Affairs/Women's Affairs	Tourism Enterprises	Schools
		Social Movements and Advocacy Groups
		Women's Groups
		Trade Unions

The first step is to identify all the stakeholders or interest groups associated with this problem or issue. The question to be asked is which stakeholders (organizations, groups, and individuals) are relevant in disaster management in the country.

A small group of about six (6) to eight (8) people, from the NDO and some other Agency(s) familiar with a varied perspective on disaster management, should be enough to create a good brainstorming session. Stakeholders can be organisations, groups, departments, structures, networks or individuals, but the list needs to be pretty exhaustive to ensure that no one is left out. Subsequently, organise the stakeholders in different matrices according to their interest and power. 'Interest' measures to what degree they are likely to be affected by the research project or policy change, and what degree of interest or concern they have in or about it. Conversely, 'power' measures the influence they have over the project or policy, and to what degree they can help achieve, or block, the desired change.

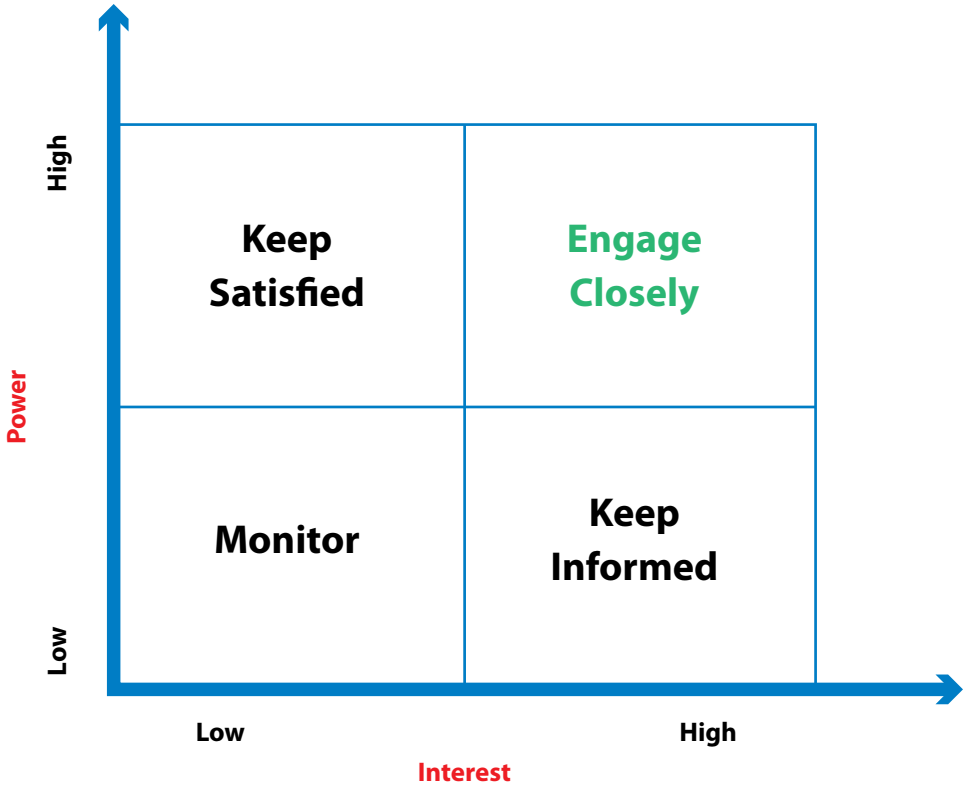
Stakeholders	Importance	Influence

Table of Influence

Stakeholders with high power, and interests aligned with disaster management, are the people or organisations that are important to fully engage and bring on board. If desirous of creating policy change, these people are the targets of any campaign. At the very top of the 'power' list will be the 'decision-makers', usually members of the government. Beneath these are people whose opinion matters – the 'opinion leaders'.

Stakeholders with high interest but low power need to be kept informed but, if organised, they may form the basis of an interest group or coalition that can lobby for change.

Using the grid in the figure below, the stakeholders can be organised in different matrices according to their interest and power. 'Interest' measures to what degree they are likely to be affected by the strategy or policy change, and what degree of interest or concern they have in or about it. Conversely, 'power' measures the influence they will have over the strategy or policy, and to what degree they can help achieve, or block, the desired change.



Stakeholder Grid

Those with high power but low interest should be kept satisfied and ideally brought around as patrons or supporters for the proposed project.

The information generated from the stakeholder analysis can also be used to develop a strategy for how best to engage different stakeholders in a project, how to 'frame' or present the message or information so it is useful to them, and how to maintain a relationship with them.

Conducting a well-structured stakeholder analysis is key to the policy formulation. Quite often, the wrong stakeholders or too many stakeholders are selected and slow decision-making adversely impacts the process. While there is no rule on an appropriate number of stakeholders, the primary stakeholders should be limited and should be kept to those who can influence and help to move the process forward. Other stakeholders identified in the stakeholders Grid can also be brought in as necessary.

Further, it is important to note that while gender sensitivity in the selection of the stakeholders is critical, the right type of stakeholders must be chosen. Female or male stakeholders should not be chosen just for the sake of their gender, but instead for the value they will bring to the intervention.

The choice of individuals representing the Agencies is equally as important. In some instances it will be necessary for individuals to be of a policy making or executive level, while in other instances they can be of a technical level. All individuals must however, be able to take decisions on behalf of their Agencies or have access to other individuals who can make the necessary decisions.

Annex 2

Work Programme of the Policy Development Committee

No.	Activity	Responsibility	Timeline (months)						Comments
			1	2	3	4	5	6	
1	Stakeholder Analysis								
2	Establishment of PDC								
3	[Engagement of consultant if feasible]								
4	PDC Inception Meeting								
5	Document Review								
6	Stakeholder Meetings								
7	Data Analysis								
8	Visioning Exercise								
9	Preparation of discussion paper on proposed policy direction								
10	Inter-ministerial Consultation on paper on policy direction								
11	Wider consultations on paper on policy direction								
12	1st draft of CDM Policy								
13	Consultation on draft policy								
14	Finalisation of CDM Policy								
15	Transmission to Cabinet for approval of CDM Policy								
16	Official gazetting of policy								

Annex 3

List of Documents That Should Be Reviewed

Documents on CDM:

- Model National CDM Policy
- CDM in the Caribbean Baseline Study
- Enhanced CDM Strategy and Framework
- CDEMA ICT Policy
- CDM Regional Baseline Data – Country Specific Data and Country Analysis
- Regional Baseline Report
- Draft National Disaster Management Bill
- Disaster Management Regulations – subsidiary legislation
- Terms of reference: Model National Disaster Management Office Organizational Structure for Advancing Comprehensive Disaster Management (CDM)
- National Performance Measurement Frameworks for the National CDM Strategy
- RBM Approach Facilitators 'Manual
- The Mainstreaming Climate Change into Disaster risk management for the Caribbean Region (CCDM) project
- Regional Monitoring, Evaluation and Reporting Framework
- Regional Monitoring, Evaluation and Reporting Manual and Tools
- National Hazard Mitigation Policies
- National CDM Strategy
- National Work Programmes
- Hyogo Framework for Action

National Plans and Policies:

- National Development Plans/Integrated Development Plans
- National Disaster Plan
- National Mitigation Plan
- National Oil Spill Plans
- National Physical Development Plan

- National Environmental Plans or Policies
- Climate Change Adaptation Plans/Policies (CPACC project)
- Integrated Coastal Management Plans
- Coastal Management Plans
- Gender Policies or Plans

Sectoral Plans and Policies:

- Agriculture
- Forestry
- Fisheries
- Health
- Housing
- Infrastructure
- Tourism

National Legislation/Regulations:

- National Disaster Legislation
- Physical Planning Legislation
- Environmental Legislation
- Agricultural Legislation
- Forestry Legislation
- Fisheries Legislation
- Marine Legislation
- Public Health Act
- Building Legislation
- Building Codes/Regulations
- Public Works Act
- Water and Sewerage Act

Annex 4

Sample Table of Contents For Policy Directions Paper

Executive Summary:

1. A statement of current policy
2. Reasons for initiation changes
3. Policy options to be considered
4. Pros and cons of each option
5. Recommended course of action
6. Reasoning for selecting that course of action

Overview and Background:

- Statement of Purpose – Why is the decision-maker being asked to consider a policy change at this time?
- Review the Current Policy – What are we currently doing, why are we doing it this way, what is the public's perception of the policy? Assess how well it is or is not working.
- Statement on the Necessity for Change – What circumstances (e.g., changes in government, leadership, stability, etc.) have changed that make a new approach advisable or necessary?

Discussion:

- Discuss the alternatives to the current policy option by enumerating and explaining each policy option in turn.
- Pros and cons of each policy option should be discussed next. Identify the political, economic, and security implications for each option. Each policy option should be compared and contrasted to the other options as well as to the current policy.

Recommendation:

- Clearly identify which option will be recommended and which options will be discounted.
- Clearly lay out the argument for why that option is better than each of the others.

Implementation:

- Write a detailed recommendation for specific steps on how and when to implement the recommended policy option.

Annex 5

Sample Agenda For Policy Directions Stakeholder Workshop

Workshop participants should include all those who are actively involved in disaster management in the country. These stakeholders would have been determined during the stakeholder analysis phase. It is important to ensure that the Agencies are represented by persons who can make decisions and/or who are technical officers responsible for implementing projects and programmes that impact on or are impacted by disaster management.

Given the nature of the workshop it will be useful to keep the size to not more than 15 to 20 persons. Consequently, the choice of the participants is critical.

The workshop should be facilitated by a consultant, who will also be responsible for preparing the workshop report.

Day 1

Plenary

1. Introduction of participants – participants should also state their Agency's expectations from the workshop and from the policy formulation process.
2. Brief presentation on the Model CDM Policy and other relevant information on CDM.
3. Round robin on each Agency's role in CDM in the country.

Group Discussion

The participants are divided into groups – 4 to 5 groups with not more than 5 persons in each group. The group chooses a facilitator and a rapporteur. The group is asked to identify:

1. Major hazards that impact the country
2. Types of response to hazard events over the last ten (10) years – gaps and challenges
3. Not more than 10 problems faced in disaster management in the country – prioritise and group
4. Causes of the problems identified in (3) above group problems and prioritise
5. Identify root problem and causes of root problem.

Plenary Discussion

Each group presents its findings in plenary. The group then decides on five (5) major problems that impact on disaster management in the country. The group continues discussions on the causes of these problems and the impacts of these problems.

These discussions should lead to what the CDM Policy should address.

Group Discussion

The groups reconvene to begin the visioning exercise. The group will identify:

1. The rationale and purpose of a CDM Policy
2. Vision for the Policy
3. Policy Goals
4. Policy Objective(s)

Plenary Session

Each group makes its presentation and sufficient time is allowed for clarification and discussions.

The Facilitator and rapporteur will be required to summarise the group presentations and prepare a synthesis report for presentation the next day. This synthesis report should cover the following:

1. Issues surrounding disaster management in the country – gaps and challenges
2. Nature of disaster response and roles and responsibilities of Agencies in that response – gaps and challenges to the response
3. Reasons for a CDM Policy
4. Vision for the policy – options provided by each group
5. Policy goals – consolidate and summarise goals provided by groups
6. Policy objectives – consolidate and summarise objectives provided by groups.

Day 2

Plenary discussion

The facilitator presents the synthesis report from the day before and the group finalises:

1. Rationale and Purpose for a CDM Policy
2. Policy statement – vision, goals(s), objective(s)

Group discussion

The groups identify the elements through which the policy will be delivered. The Model CDM Policy comprises three (3) elements: CDM approach; CDM Enabling Framework and the CDM Mainstreaming Framework (refer to Chapter 1 of the Model CDM Policy). Each group should be encouraged to identify not more than 8 of these elements.

Plenary Discussion

The group reconvenes for the group discussions. Each of the group presentations is discussed. The facilitator then summarises and groups the policy elements. The group prioritises the policy elements.

The rest of the day is taken up with discussions on:

1. Identification of a writing committee to finish the policy document;
2. Time line for the policy
3. Agencies responsible for implementing elements of the policy;
4. Financing options for the policy
5. Sensitisation of the CDM policy
6. Next steps

Annex 6

The POLICY should contain the following sections:

i. A list of acronyms and abbreviations

ii. A glossary

iii. An introduction

iv. A background

v. The principles that inform the policy

vi. A policy statement that must include the following:

a) The Vision

b) The Goals

c) The Objectives

vii. The policy Strategy

viii. Selected priority areas for action

ix. Strategic interventions

The Glossary

A glossary will provide explanations of technical terms used in the document. It will ensure that there is a common understanding of the terms used in the document.

Introduction

This section provides the reader with a clear and concise overview of the purpose of the policy and what it is meant to achieve.

The Background

This section provides:

1. Background information on the status of disaster management and existing efforts in managing all phases of the disaster cycle in the country.
2. Some indication of the context within which the policy is being developed.
3. The challenges that are to be addressed by the policy.

The Principles that Inform the Policy

Having made an assessment of existing hazards and vulnerabilities and methods for responding to these hazards, it will be possible to identify the crucial issues that need to be considered in developing the policy. These can in turn be expressed as guiding principles that may be used to underpin a broad strategy to deal with these national concerns.

Policy Statement

The policy statement is the heart of the policy and will inform most of the policy document. It consists of three (3) major parts:

- A Vision
- Goals
- Objectives

Developing the Vision

A Vision statement for the policy should provide a comprehensive, yet succinct overview of where the country wishes to see itself with respect to Comprehensive Disaster Management.

The Vision statement should be developed as part of a consultative effort and must involve a broad cross section of participants as the vision expresses in an encapsulated form what the CDM policy is trying to achieve.

All the stakeholders must agree on this vision as it informs the entire policy. The process for the development of the vision may be time consuming as it should be discussed and agreed by as wide a cross section of stakeholders as possible. Once the vision is agreed, the goals and objectives can be determined.

Developing Goals

Goals are general statements and should be stated in a positive manner. Goals may be derived from a number of sources. Some examples of sources, which should inform the development of goals, are:

a. Regional Policies and Statements

b. Policies and Plans at national and sectoral levels

c. Community needs

d. Country and sectoral developmental needs

e. Legislative guidelines and authority

Developing Objectives

Objectives flow from the goals, and several objectives can be derived from each goal. Objectives provide steps towards achieving goals and are usually stated as verbs. They are more specific and tangible than goals and should be capable of being operationalised.

Policy Strategy

The policy strategy briefly indicates basic actions, which will be taken to achieve the policy and is informed by the issues, gaps and challenges that have been identified as a result of the assessment of the country's needs.

Selecting Priority Areas for Action

Priorities for action, based on country needs, will have to be identified in order to determine where emphasis should be placed. These priorities can only be determined after extensive discussion of the needs and wants of the country against the backdrop of its current disaster management challenges and gaps. Identification of the priorities will determine the development of the strategic interventions.

Strategic Interventions

Strategic interventions are the specific actions that are identified to implement the policy. The interventions have to relate to the goals, objectives and the priority action areas identified for the country. Several interventions can be identified for the priority areas. However, care must be taken that the number of interventions proposed can be implemented.

Annexes

Listing of members of the PDC

Listing of Stakeholders at consultations

Listing of enabling policy and legislative instruments

Listing of sectoral strategies, plans and programmes

Other Considerations

While not included in the policy document itself, the opportunities and constraints for implementation of the policy should be examined in order to inform the strategic interventions, as well as to ensure that these Interventions are realistic.

Annex 7

Template for the National Comprehensive Disaster Management Strategy

[Name of Country]

National Comprehensive Disaster Management Strategy

(20.. – 20..)

[Name Of National Disaster Office]

[Contact Details]

Approved By:

_____ _____

Preface

a) The reason for preparing the CDMS

b) How was the CDMS prepared

c) The agencies who were involved in the preparation of the CDMS

d) Acknowledgements

e) A list of key terms, concepts and acronyms - This section should provide explanations of technical terms used in the document. It will ensure that there is a common understanding of the terms used in the document.

Background

This section provides:

a) Information on the status of disaster management and existing efforts in disaster management in the Participating State.

b) Some indication of the context within which the strategy is being developed.

c) The challenges that are to be addressed by the strategy.

Introduction

This section should provide the reader with:

a) A clear and concise overview of the purpose of the strategy and what it is meant to achieve, including the gaps and challenges it will mitigate.

b) A brief overview of existing disaster management programme strategies in the country and how they inform the proposed strategy.

The structure of the CDMS

Provides a brief description of:

1. The aims of the CDMS
2. The Scope of the CDMS – the time period, the issues that it will cover, e.g. multi hazards and all phases of the disaster cycle; the agencies who will participate in the implementation of the CDMS
3. The aim of the CDMS – e.g. to provide a framework for integrating CDM into all aspects of development and at levels of everyday activity by the entire society; identify appropriate policy, legal and institutional arrangements for mainstreaming CDM into national programmes, and plans, etc.
4. Structure of the CDMS – what are the main problems in CDM in the country that the CDMS will address
5. The principles guiding the CDMS - Having made an assessment of the hazards that have impacted the country and the responses for addressing these hazards, it will be possible to identify the crucial issues that need to be considered in developing the CDMS. These can in turn be expressed as guiding principles that might be used to underpin a broad strategy to deal with these national concerns.
6. Goals of the CDMS - Goals are general statements and are descriptive rather than quantitative. They are not instruments and should be stated in a positive manner.

7. Objectives of the CDMS - Objectives flow from the goals, and several objectives can be derived from each goal. Objectives provide steps towards achieving goals and are usually stated as verbs. They are more specific and tangible than goals and should be capable of being realized. Because the objectives are tangible, they will be simpler than the goals. They must relate to the goals i.e. they must fulfill the goals.

It would be useful to prepare a results-based management framework to summarise the CDMS. The template for the RBM framework can then be attached as Annex 2.

The Components of the CDMS

This section should provide the reader with an idea of how the CDMS will be delivered, e.g.

OPTION A

- Programmatic interventions
- Strategic Interventions

OPTION B

- Mainstreaming Interventions
- Enabling Interventions

Strategic interventions of the CDMS

Strategic interventions are the priority actions that are identified to implement the CDMS. The interventions have to relate to the goals, objectives and the priority action areas identified for the country. Several interventions can be identified for the priority areas. However, care must be taken that the number of interventions proposed can be implemented.

Examples:

OPTION A

1. Programmatic interventions:
    a. Implementing structural and non-structural measures to limit the adverse impact of natural hazards, environmental degradation and technological hazards
    b. Building resilience and reducing risk at all levels of society and all phases of the CDM process through analysis and evaluation of all risks and hazards. Further, the use of such analyses and information in the design of targeted and appropriate intervention programmes and projects

2. Strategic Interventions:
    a. Developing the necessary enabling environment – policy, legislative and institutional arrangements for mainstreaming CDM.
    b. Building Capacity – developing the institutions, skills, infrastructure, technical support, information management, etc. for CDM.
    c. Communications, education and public awareness - e.g. actions to raise awareness on disaster risk reduction and preparedness as important elements in the disaster management cycle.
    d. Resource mobilisation

OPTION B

1. Mainstreaming Interventions
    a. Develop guidelines for communities to formulate risk reduction and resilience plans, and provide training in the use of these guidelines.
    b. In collaboration with the appropriate sectors and agencies, facilitate the mapping and profiling of vulnerable groups, areas and sectors.
    c. Facilitate the training of communities and NGOs in community risk assessments, capacity appraisals and in mitigating these risks.
    d. Work with the National Climate Change Committee and other relevant entities to assist communities in undertaking small-scale physical mitigation activities.
    e. Where technical capacities exists, work with community groups and NGOS, through demonstrative mitigation activities protecting common assets (roads and pathways, shelters, retaining walls, water catchments, etc) to develop core preparedness skills, monitoring of hazards, disaster planning, and early warning.
    f. Assist sectoral Agencies to review or develop sectoral strategies and plans so that disaster risk reduction is one of the central elements of these plans and strategies.
    g. Where feasible, institutionalise training resources and capacities or develop a cadre of national consultants to whom these services can be outsourced.
2. Enabling Interventions
    a. Provide training and sensitisation on the CDM Approach and the CDM Mainstreaming tools as described in this CDM Policy.
    b. Development of Guidance Notes and other such related tools to provide inter-sectoral and inter-agency training in the principles of CDM and the tools used in the CDM Approach – e.g. hazard characterisation; profiling vulnerable groups; hazard mapping, risk assessments and

analyses – and how the resultant analyses and information should be incorporated into development planning; project development and management; impact assessments, etc.

c. Enact appropriate CDM Legislation or incorporate, where feasible, the appropriate CDM principles and processes in the Model Disaster Management Bill; develop standards and regulations to implement the legislation.

d. Review existing planning and impact assessment legislation and incorporate elements from the CDM Enabling and Mainstreaming Frameworks.

e. Implement and/or facilitate sensitisation, awareness and public education on the CDM Approach to all levels of society.

f. Establish and/or strengthen ICT and other infrastructure for fact based decision-making.

Indicative priority actions and time frame

The information can be usefully presented by way of the table provided below.

Type of Intervention e.g. Mainstreaming Intervention	**Priority Actions**	**Expected results**
Short Term (1-3 years) Intervention E.g. Responsible Agency – NDO/Ministry of Social Development/Red Cross	E.g. Develop Guidelines for hazard characterisation and profiling vulnerable groups	E.g. Hazard Mitigation interventions are more targeted because the interventions are designed to meet the requirements of specific sites and vulnerable groups.
Medium Term Intervention	Associated Priority Action	Associated Expected Result
Long Term Intervention	Associated Priority Action	Associated Expected Result

Risks and Assumptions

The implementation of the CDMS will hinge on a number of assumptions such as, inter alia, the availability of the necessary financing, technical capabilities and inter-sectoral coordination. There are also associated risks that can impact on the implementation of the CDMS. There should be activities identified which could mitigate the risks. This information can be presented in a table. It will also be useful to classify the risk according to the type of strategic intervention, e.g. programmatic intervention/strategic intervention; mainstreaming intervention/ enabling intervention.

Risks	Actions to Mitigate Risks
e.g. Strategic Intervention	
The Cabinet does not approve the CDMS and there is no intersectoral mechanism to facilitate and coordinate CDM	Cabinet approval will be sought for the Steering Committee established to prepare the CDMS

Supporting Elements of the CDMS

a. The indicative actions identified in the two (2) sections above will have to be supported by a number of management principles and tools, which should be briefly described in this section. Items that can be included in this section are:

b. Elements of the Model National CDM Policy and how they relate to the CDMS

c. Other policy and legal instruments and strategies that will influence the implementation of the CDMS

d. Types of mainstreaming tools and guidance notes that will be used to implement some of the interventions

e. Climate change and climate variability

f. Proposed institutional arrangements to implement the CDMS

g. Roles and responsibilities

Monitoring and Evaluating the CDMS

Implementation of the CDMS will include regular monitoring and evaluation of progress. In this section, the reader is informed of who will be responsible for coordination and implementation of the CDMS, as well as which participating institutions will be responsible for monitoring and implementation of each particular action identified in the CDMS.

This section should also identify the key monitoring tools, e.g.

a. Annual reports from relevant stakeholders;

b. Consolidated Annual reports from the Agency responsible for facilitating and coordinating the CDMS; and

c. Annual meetings convened by the CDEMA CU to specifically discuss progress on implementing national CDM Strategies;

It is recommended that the CDEMA CU's "The Regional Monitoring, Evaluation and Reporting (M,E&R) Manual & Tools – Volume II" for the Caribbean Disaster Emergency Management Agency (CDEMA) be used in the selection of tools and processes for monitoring on the CDMS. Although these are tools to be used in monitoring and reporting on the regional outputs and outcomes of the Enhanced CDM Strategy and Framework, it is envisaged that, a national CDMS will reflect the Model CDM Policy, which on the other hand is formulated on the platform of the Enhanced CDM Strategy and Framework.

Financing Options for the CDMS

For the CDMS to be sustainable, adequate funds have to be allocated to the implementation of annual work plans emanating from the CDMS. This section should provide information on how resources for implementing the CDMS will be sourced. These sources do not have to be solely from the national budgets, but also from other related programmes and projects, especially climate change.

Annexes

List of supporting documents

RBM Framework for the CDMS

The template for the RBM framework is provided below.

TEMPLATE FOR PREPARING THE CDMS MONITORING FRAMEWORK

Expected Results	Indicators	Baseline	Targets	Methods of Collection	Sources of Data	Frequency of Collection	Responsibility
Goal/Impact	Measures the change in conditions or state.	Use the baseline information provided in CDEMA's CDM Baseline Technical Report.	This will depend on the CDMS strategic actions and how they are rolled out over the life of the CDMS.	How will the data be collected – reports, surveys, Refer to tools in the CDEMA PMS.	Data sources to verify the indicators.	How often will the data be collected.	Who will be responsible for collecting what types of data.
Outcomes	Measures the change in system of behaviour. Example: Level of capacity of communities to respond to disasters.						
Outputs	Describes what is produced. These are often tangible. Example: Number of disaster plans developed by communities in region X.						

Refer to: CDEMA, 2010. Results Based Management Approach, Facilitator's Manual. Section 4-1

Annex 8

TEMPLATE FOR MULTI-YEAR COUNTRY WORK PROGRAMME

[Name of Country]

National Comprehensive Disaster Management Strategy
Multi-year Work Plan

(201.. – 201..)

[Name Of National Disaster Office]

[Contact Details]

Approved By:

[ ]

Date

Action plans basically translate the Strategic Plan into implementation steps.

1. **Foreword**
2. **Executive summary**
3. **Introduction**

Points to consider:

a. Overall statement on Disaster Management in the Participating State

b. Statement about the CDM Strategy and identify the Strategy Outcomes

c. Broad contribution Work Programme will make nationally, regionally

and globally through its implementation

d. RBM approach

e. Identification of key outputs over the Work Programme Implementation period

f. Raise issues of resources (human, financial and material)

g. Concluding comments

4. Strategy

a. List of strategic objectives based on the CDMS

b. Strategic actions decided for the period

c. Overall budget (expenditure and sources of income)

Outcome 1

Action 1

- Priority issue addressed/background
- Specific objectives, indicators, targets
- Description of individual activities
- Lead roles in implementations
- Time and work plan
- Monitoring and evaluation
- Risks and Assumptions
- Budget

Action 2

- Priority issue addressed/background
- Specific objectives, indicators, targets
- Description of individual activities

……

…….

Action 3

Outcome 2

Action 1

…..

Action/project 2

….

Description of planning process and stakeholders involved

Appendices

Review the document entitled Comprehensive Disaster Management (CDM) Regional Baseline Data – Final Technical Report: Country Specific Data and Data Analysis. Select *indicators of importance to your country. In doing so take into account the priorities which may exist within the country.*

#	Link to National CDM Strategy – Outcome	Country Work Programme Output	Activities	Performance Indicator	Responsibility	Resources Needed (USD)	Start Date	End Date	Comments
OUTCOME 1: e.g. CDM has been mainstreamed									
1.1		CDM is recognised, by the public and private sectors and CSO, as the road map for building resilience to hazards	Refer to CDM Model National Policy and Adaptation Guide for types of activities	Refer to Regional Monitoring, Evaluation and Reporting Manual and Tools (Vol. I and II) for assistance	Which agency/ agencies will be responsible for which tasks needed to accomplish the activity	Inputs needed to accomplish activities: • human resources • finances • equipment • travel • etc.			Comments on the status of implementation of the activities; also highlights any assumptions and risks
1.2	DRM capacity of lead sectors is enhanced.								
1.3	Hazard information and DRM is integrated into development planning.								
1.4									
1.5									
1.6									

#	Link to National CDM Strategy – Outcome	Country Work Programme Output	Activities	Performance Indicator	Responsibility	Resources Needed (USD)	Start Date	End Date	Comments
Outcome 2:									
2.1									
2.2									
2.3									
2.4									
2.5									
Outcome 3:									
3.1									
3.2									
3.3									
3.4									

Refer to

1. CDEMA, 2010. *Results Based Management Approach., Facilitator's Manual.* Figure 4.4, page 4 - 8 for guidance.
2. CDEMA, 2010, *Regional Monitoring, Evaluation and Reporting Manual and Tools (Vol. I and II)* for further guidance

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