



Assessment of CDM Integration in Five Key Sectors and Prioritisation and Selection of Two Priority Sectors in Antigua and Barbuda, St Lucia and Dominica

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Assessment of CDM Integration in Five Key Sectors and Prioritisation and Selection of Two Priority Sectors in Antigua and Barbuda, St Lucia and Dominica

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List of Acronyms

AAL	Average Annualised Loss
CARICOM	Caribbean Community
CARPHA	Caribbean Public Health Agency
CBO	Community-Based Organisations
CC	Climate Change
CCA	Climate Change Adaptation
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CDM	Comprehensive Disaster Management
CDEMA	Caribbean Disaster Emergency Management Agency
CDERA	Caribbean Disaster Emergency Response Agency
CDMSF	Comprehensive Disaster Management Strategic Framework
CDRT	Community Disaster Risk Management Team
CGA	Country Gender Assessment
CTO	Caribbean Tourism Organization
CYEN	Caribbean Youth Environment Network
DFATD	Department of Foreign Affairs, Trade and Development
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
DRRC	Disaster Risk Reduction Centre
ECLAC	Economic Commission for Latin America and the Caribbean
EIA	Environmental Impact Assessment
EKACDM	Enhancing Knowledge and Application of Comprehensive Disaster Management
ESIA	Environment and Social Impact Assessment
FAO	Food and Agriculture Organization
GAR	Global Assessment Report
GDP	Gross Domestic Product
GEF	Global Environment Fund
GFP	Gender Focal Points
GIS	Geographic Information System
GMI	Global Mainstreaming Initiative
HFA	Hyogo Framework for Action
IDB	Inter-American Development Bank
IICA	Inter-American Institute for Cooperation on Agriculture
M&E	Monitoring and Evaluation
MTDS	Medium-Term Development Strategy
NDO	National Disaster Office
NEMO	National Emergency Management Organisation
NEPO	National Emergency Planning Organisation
NGO	Non-governmental Organisation
NODS	National Office of Disaster Services
NPIS	National Public Investment Systems
ODM	Office of Disaster Management
PAHO	Pan American Health Organization
PPP	Public Private Partnership
SFDRR	Sendai Framework for Disaster Risk Reduction
SIDS	Small Island Developing States
SSC	Sector Sub-Committees
UN	United Nations

UNDP	United Nations Development Programme
UNISDR	United Nations Office for Disaster Risk Reduction
UWI	University of the West Indies
WHO	World Health Organization

1 INTRODUCTION

1.1 Background

In 2013, the University of the West Indies Disaster Risk Reduction Centre (DRRC) of the Institute for Sustainable Development (ISD) launched the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Programme. The EKACDM, a five-year initiative, aims to *“establish an effective mechanism for managing and sharing Comprehensive Disaster Management (CDM) knowledge that is used for decision-making in the public, private and voluntary sectors”* in the Caribbean. The programme is funded by the Government of Canada through the Department of Foreign Affairs, Trade and Development (DFATD) Canada, and has as its main priority the successful implementation of the CARICOM Enhanced CDM Strategy and Framework¹. Specifically, the main objective of the project is *“to establish an effective mechanism for managing and sharing Comprehensive Disaster Management (CDM) knowledge that is used for decision-making by governments, local communities, the voluntary sector and the private sector”* (EKACDM Project Summary). This objective is consistent with Outcome #2 of the 2014–2024 CDM Strategy for the Caribbean, which is *“increased and sustained knowledge management and learning for CDM”*.

The EKACDM Initiative has three (3) main intermediate outcomes:

- Intermediate Outcome 1: A Regional Network to generate, manage and share knowledge on Disaster Risk Management (DRM), including gender issues, is operationalised;
- Intermediate Outcome 2: Increased use of standardised gender-sensitive educational and training materials for Comprehensive Disaster Management by professionals and students in the Caribbean;
- Intermediate Outcome 3: Effective mechanism for gender-sensitive fact-based policy and decision-making on CDM to be mainstreamed into key economic sectors and Small and Medium Enterprises (SMEs) established.

Ultimately, the EKACDM Initiative is expected to support the implementation of the CARICOM Enhanced CDM Framework to reduce the impact of natural and technological hazards and the effect of climate change on men, women and children in the region.

1.2 Scope of Consultancy to Develop Framework and Guidelines for Mainstreaming CDM in National and Sectoral Policies

This assignment takes place under Output 3.1.1 of the EKACDM Initiative. Its purpose is to:

Develop a framework and guidelines for mainstreaming Comprehensive Disaster Management (CDM) into national and sectoral policies for two of the five priority economic sectors – water, tourism, finance and economic development, agriculture, and health and

¹ At the time of the project design, this applied to the 2007–2012 Strategy, but the 2014–2024 CDM Strategy is now the relevant framework.

wellness. These guidelines should be applicable for use in all the EKACDM project countries, but will be developed based on sectoral assessments in the following focus countries:

- Antigua and Barbuda
- Dominica
- St Lucia (Figure 1).

The framework and guidelines developed under this assignment to support the EKACDM Initiative must align with the DRM objectives of the CDM Strategy 2014–2024.



Figure 1: Focus Countries and Map of Caribbean Region

Source: Retrieved from: <https://s-media-cache-ak0.pinimg.com/>

In developing the guidelines, the following activities are anticipated:

1. Assess the level to which CDM is included in national (Government) and sectoral policies and plans for the five priority economic sectors in the target countries – Dominica, St Lucia and Antigua – and provide recommendations to address any gaps;
2. Assess which CDM strategies are integrated in national policies and strategies, including sectoral policies and strategies;
3. Assess any CDM strategies that are mainstreamed in relevant sectors in the target countries;
4. Identify opportunities for CDM to be mainstreamed in selected sectors in target countries;
5. Conduct a prioritisation assessment to select two sectors for which policy guidelines and frameworks will be developed;
6. Validate selection/recommendation;

7. Prepare a framework for mainstreaming CDM in the selected sectors in the target countries.

The framework and guidelines for CDM mainstreaming in the selected sectors will consider the environment, gender, information and communications technology, and climate change, which are the cross-cutting themes that are relevant to the EKACDM Initiative.

1.3 Purpose of this Report

This report presents the findings of the prioritisation assessment of the level of CDM mainstreaming in sectoral policies and plans for the five priority sectors in the three target countries. Based on this assessment, two sectors, for which policy framework and guidelines will be developed, are recommended.

This assessment considers the integration of CDM in national and sectoral policies and legislation in these countries, identifying the mainstreaming strategies and actions currently used. It also examines the main barriers to mainstreaming CDM in the target countries.

1.4 Structure of the Report

This report presents the findings of the exercise to identify the two priority sectors for which mainstreaming framework and guidelines will be developed. The report has five sections, and is structured as follows:

- **Section 1** outlines general background and purpose of the assignment. Described in the section are the project objectives, a brief background to the project, and the technical approach, including the procedures used in the study;
- **Section 2** presents the main conceptual frameworks guiding Disaster Risk Reduction and CDM mainstreaming internationally and regionally. It also outlines the case for CDM mainstreaming in the Caribbean;
- **Section 3** outlines the methodological approach adopted for the assignment. The data collection instrument is summarised, and a detailed description of the approach used to assess the extent of CDM mainstreaming is presented;
- **Section 4** presents the findings of the assessment of the level of CDM integration at the sectoral and national levels for each of the target countries;
- **Section 5** presents the recommendations.

This report structure seeks to present the findings from the assessment of CDM mainstreaming at the country level. This allows the sector findings, including the barriers, challenges and gaps, to be contextualised in the country setting.²

² Alternatively, the findings could have been presented at the sector level, rather than the country level. This approach would have examined the performance of the sectors across islands, with little focus on the country contexts.

1.5 Technical Approach

The approach used for this CDM Assessment and Prioritisation Assessment was participatory, and included a mix of secondary and primary data collection methods. The United Nations Development Programme's (UNDP) DRR Mainstreaming Framework (See methodology for details), which outlines the key components that need to be considered as part of the CDM mainstreaming process, was adapted and used to execute this assessment. The five domains and subdomains used in the framework were converted into a tool which allowed users to systematically assess the level of CDM integration at both the national and sectoral levels. The participants in data collection workshops held in the three countries, found the tool to be useful as it provided a methodical way to map areas of progress, gaps and challenges to CDM integration in each sector.

The assessment of CDM mainstreaming in the five sectors employed the following procedures:

- A. **Literature Review:** This examined international, regional and local reports and studies on CDM mainstreaming. This was done to identify the key elements of CDM mainstreaming, existing efforts at mainstreaming in the Caribbean, and gaps and barriers to mainstreaming. The review also focused on identifying a best-fit framework to guide the assessment of the CDM mainstreaming efforts. Hence, it examined the extent to which the mainstreaming frameworks were applicable in the Caribbean and aligned with the priorities set out in the region's CDM Strategy 2014–2024. The literature review was also used to identify entry points for mainstreaming in the sectors, and refine the methodology and approach to the assessment and prioritisation of the five key sectors.
- B. **Development and Adaptation of Semi-Quantitative Tool to Assess CDM Mainstreaming at Sector and National Levels and Prioritise the Sectors:** Based on the literature review, the UNDP framework for mainstreaming was selected and adapted for the assessment. A semi-quantitative matrix was developed using this framework and included each of the five domains and related sub-elements. Each sub-element was defined and had its own set of two to three indicators and related means of verification that guided the assessment. The matrix also had weights that were applied to each sphere and ratings that related to each indicator to objectively assess the extent to which each indicator was met. A comments section was also included to provide a narrative that justifies the rating applied to each indicator.

A similar tool was also developed to assess CDM mainstreaming at the national level. This tool was further adapted and simplified based on the usage of the sector tool and therefore did not contain weights and ratings that were qualitative.

- C. **Integration of Stakeholder Perspectives:** This involved an assessment and prioritisation process through the development and administration of a semi-quantitative assessment and prioritisation tool that was administered at each sector level. It integrated multiple stakeholder inputs, objectively assessed CDM at the national and sectoral levels, and scored each sector's progress with mainstreaming. The tool and participatory approaches also identified gaps, challenges and successes at mainstreaming.

- a. **Stakeholder Identification and Selection** – Stakeholders were identified and selected with the assistance of the National Disaster Offices in each island. They identified stakeholders who were senior as well as operational level personnel working in the targeted sectors, regardless of their knowledge of disaster risk management. This mix of decision-making levels brought both strategic and operational level perspectives in the evaluation of the sector, and the assignment of the appropriate ratings. The agencies that participated in the workshops are listed in Table 1.

Table 1: Overview of Stakeholder Participation in Workshops by Agency, Number of Representatives and Gender

Country	Sector	Agencies/Departments	Number of Representatives	Gender Distribution
Antigua and Barbuda	Disaster Focal Point	National Office of Disaster Services	5	Female (4) Male (1)
	Health	Ministry of Health	3	Female (2) Male (1)
	Finance	Ministry of Finance	3	Female (3)
	Water	Department of Environment	1	Female (1)
		Antigua Public Utilities Authority (Water Division)	1	Male (1)
	Agriculture	Ministry of Agriculture	5	Female (2) Male (3)
		Plant Protection Division	1	Female (1)
		Fisheries Division	1	Male (1)
	Education	Board of Education	3	Female (3)
Total			23	16 Females; 7 Males
Dominica	Disaster Focal Point	Office of Disaster Management	2	Male (1) Female(1)
	Health	Ministry of Health	1	Female (1)
	Finance	Ministry of Finance	2	Male (2)
		Department of Treasury	1	Male (1)
		Department of Statistics	1	Female (1)
		Department of Customs and Excise	2	Male (2)
		Inland Revenue	1	Male (1)
		Local Government	1	Male (1)
	Water	Dominica Water and Sewerage Company Limited	2	Male (2)

Country	Sector	Agencies/Departments	Number of Representative	Gender Distribution
	Agriculture	Division of Agriculture	2	Male (2)
	NGO/Private Sector	Dominica Association of Industry and Commerce	1	Female (1)
Total			16	4 Females 12 Males
St Lucia	Disaster Focal Point	National Emergency Management Organisation	4	Female (2) Male (2)
	Health	Ministry of Health	3	Male (3)
	Water	Water Resource Management Agency	2	Male (2)
		Caribbean Water and Sewerage Association	1	Male (1)
		Water and Sewage Company Inc.	2	Male (2)
		Department of Forestry	2	Female (1) Male (1)
		Meteorology Office	2	Female (1) Male (1)
	Agriculture	Ministry of Agriculture	1	Male (1)
	Tourism	Department of Tourism	1	Female (1)
	Gender	Department of Gender Affairs	1	Female (1)
	Education	Ministry of Education	1	Male (1)
	NGO/Private Sector	Red Cross	2	Male (2)
		Babonneau Development Committee	1	Female (1)
Total			23	7 Females 16 Males
GRAND TOTAL			62	27 FEMALES 35 MALES

- b. **Data Collection Workshops** – Two-day workshops were held in each of the targeted countries to introduce them to the project and facilitate each sector completing the rating and comments sections of both the sector and national level CDM and prioritisation assessment tools. The workshops were also used to collect information on gaps, challenges and strengths for CDM sector mainstreaming. In these workshops, stakeholders were allowed to consult documents from the sector, make telephone contact with other sector representatives and communicate with other sector representatives who were present at the workshop. This was in an effort to garner the most

comprehensive perspective to assign the appropriate rating for each indicator.

Data collection for the assessment of national level CDM mainstreaming involved all participants, while the sector assessment was done in a group setting and involved sector representatives. Sector representatives whose functions overlapped were permitted to participate in each group as necessary, for example, planning and environment.

- D. **Compilation and Analysis of Findings:** The objective was to present an assessment of CDM mainstreaming in the five sectors, and prioritisation of the two sectors in each of the three countries. The analysis considers the findings from the literature review and the CDM assessment tool as well as the consultants' own expert judgement.
- E. **A further Shortlisting of the Sectors:** The goal was to identify the two priorities based on available existing materials and tools for CDM mainstreaming.

2 CDM MAINSTREAMING AND CONCEPTUAL FRAMEWORKS

Mainstreaming DRR in the development agenda is especially important for Small Island Developing States (SIDS) such as those in the Caribbean region because disasters have exacted and continue to exact a heavy toll with significant socio-economic losses. This report uses the Benson and Twigg (2007) definition of mainstreaming, and presents, in Section 4, the summary overview of select major disasters in the three (3) countries of focus, demonstrating the case for mainstreaming. These summaries provide insights into the progress, achievements, and challenges with mainstreaming DRR at a national level. The major frameworks which operationalise the concept of mainstreaming in CDM are also discussed.

2.1 Importance of CDM Mainstreaming

As is widely known, disasters erode the gains of development. The Caribbean region is recognised as being the second most disaster prone region in the world (UNDP, 2011; UNISDR, 2003; United Nations, 2013). This is as a result of its location, heavy dependency on particular sectors for foreign exchange, geology, tectonic setting, and poor land use and environmental practices. Natural hazards such as hurricanes, landslides, and floods are annual occurrences that present a constant threat to human, economic, social, and environmental development in the region (United Nations, 2013; CDEMA, 2014). Additionally, the inherent physical characteristics as small island states, and the accompanying socio-economic features make the region highly vulnerable to the effects of climate change.

Regular annual disaster losses are estimated at \$3 billion with significant loss to social and productive sectors. Impacts from hazards will only intensify as a result of climate change, as 60% of the region's population and 70% of its economic activity are within two miles of coastlines (CDEMA, 2014). The region's vulnerability is amplified by the fiscal fragility of many of the Caribbean islands. According to Auguste and Cornejo (2015), most of the Caribbean economies' fiscal imbalances have resulted in high levels of public debt, in some

cases, exceeding their GDP. The implications are grave, especially in terms of delays in development as well as increase in poverty and inequality. This presents a serious obstacle for the region in achieving sustainable human development, hence the importance of mainstreaming CDM in national policies and programmes.

Tearfund defines mainstreaming in this way:

‘Mainstreaming’ derives from the metaphor of a small, isolated flow of water being drained into the main stream of a river where it will expand to flow smoothly without loss or diversion. Therefore “mainstreaming risk reduction” describes a process to fully incorporate disaster risk reduction into relief and development policy and practice. It means radically expanding and enhancing disaster risk reduction so that it becomes normal practice, fully institutionalised within an agency’s relief and development agenda.

(Pelling and Holloway, 2006)

Benson and Twigg (2007) note that to ‘mainstream’ disaster risk reduction into development means considering and addressing risks emanating from natural hazards in medium-term strategic development frameworks, legislation and institutional structures, sectoral strategies and policies, budgetary processes, as well as the design and implementation of individual projects, and monitoring and evaluating all of the above.

These definitions are reflected in the Comprehensive Disaster Management Policy (2012), which defines mainstreaming as making comprehensive disaster management an integral dimension of the policies and programmes in all political, economic and societal spheres.

The common thread running through these definitions is that mainstreaming requires a holistic and multi-sectoral approach to be successful. As aptly summarised by Nunan et al. (2012), mainstreaming DRR is a “recognition that too many factors and activities play a role in achieving DRR and only through a comprehensive cross-sectoral approach will DRR succeed”.

The United Nations Development Programme (UNDP, 2004) notes that disasters are both a cause and a product of failed development. Therefore, mainstreaming is a process which seeks to integrate, institutionalise, and embed DRR principles within a government’s development agenda. Global recognition of this has seen clear articulation in Priority 2 of the Sendai Framework for Disaster Risk Reduction (SFDRR) as well as in Outcome 2 of Comprehensive Disaster Management Strategic Framework (CDMSF), of the importance of mainstreaming and integrating DRR within and across all sectors.

According to the Global Assessment Report (GAR) 2015, disaster risk is increasing, causing economic losses averaging US\$250 billion to US\$300 billion globally each year. Additionally, the average annual losses (AAL) from earthquakes, tsunamis, tropical cyclones and river flooding are now estimated at US\$314 billion in the built environment alone (UNISDR, 2015).

2.2 Conceptual Framework

The GAR 2015 has acknowledged that the Hyogo Framework for Action (HFA) 2005–2015, the key global instrument that the guided implementation of DRR, has generated substantial investment in, and commitment to disaster risk reduction by stakeholders at all levels. However, the expected outcome of the HFA has only been partially achieved because it has “proved far less effective in managing the underlying risks” (UNISDR, 2015). These risks are generated within a broader development framework, hence addressing them requires actions such as poverty reduction, planning and managing cities appropriately, and protecting and restoring ecosystems (UNISDR, 2015). In other words, multi-sectoral effort and emphasis are required to effectively mainstream DRR in all relevant sectors to build resilience to natural disasters.

2.3 Sendai Framework

Although advancements were made to systematically reduce disaster risks through the implementation of the HFA, it has been replaced with the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015-2030. This is the third international framework on Disaster Risk Reduction and it was adopted in 2015 at the Third UN World Conference in Sendai, Japan. Its overarching goal is to *“prevent new, and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience”*.

With four priorities for action and seven target goals, the Sendai Framework places greater focus than the HFA on local actions and involvement in disaster risk reduction, governance, and disaster risk prevention, reduction, and recovery. There is greater emphasis on State responsibility for reducing the risk of disasters and engaging stakeholders at all levels to use an inclusive and risk-informed approach to address disaster risk management. Priority areas of action are:

- a) **Priority 1: Understanding disaster risk** – An understanding of disaster risk in all its dimensions of vulnerability is paramount with focus being placed on capacity, exposure of persons and assets, hazard characteristics, and the environment;
- b) **Priority 2: Strengthening disaster risk governance to manage disaster risk** – Disaster risk governance at the national, regional and global levels is vital to the management of disaster risk reduction in all sectors. It is also important to ensure the coherence of national and local frameworks of laws, regulations and public policies which, by defining roles and responsibilities, guide, encourage and incentivise the public and private sectors to take action and address disaster risks;
- c) **Priority 3: Investing in disaster risk reduction for resilience** – Public and private investment in disaster risk prevention and reduction through structural and non-structural measures is essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment;

- d) **Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction** – Critical to the process is the strengthening of disaster preparedness for more effective response and ensuring that capacities are in place for effective recovery. The recovery, rehabilitation and reconstruction phase needs to be prepared ahead of the disaster, creating an opportunity to «Build Back Better» through integrating disaster risk reduction measures. Women and persons with disabilities should publicly lead and promote gender-equitable and universally accessible approaches during the response and reconstruction phases.

2.4 Regional Comprehensive Disaster Management

Consistent with global thinking on DRR, the regional disaster management agency, the Caribbean Disaster and Emergency Management Agency (CDEMA), developed a draft Regional Comprehensive Disaster Management Strategy and Programming Framework (CDMSF) 2014–2024. The new strategy builds on the successes of the 2007–2012 CDM, and aims to address the existing gaps in achieving CDM and mainstreaming DRM at the sectoral level. The goal of the CDMSF 2014–2024 is to realise “safer, more resilient and sustainable CDEMA in participating states through Comprehensive Disaster Management”. This goal is supported by four high-level priority outcomes and sixteen outputs as represented in the CDM Logic Model. The Implementation of the CDMSF also focuses on the inclusion of several cross-cutting themes: (i) Gender; (ii) Climate Change; (iii) Information and Communications Technology; and (iv) Environmental Sustainability.

It is significant to note that the outcomes of the SFDRR are closely aligned to the long-term goals of the CDMSF, with both affirming the need to reduce disaster risk substantially and build resilience. CDEMA mapped the SFDRR Priorities for Action and the priority areas of the CDMSF to demonstrate the high level of compatibility between these two Frameworks (Figure 2). The CDMSF provides the conceptual framework for this assignment, the outputs of which will contribute to attaining desired results in CDEMA’s priority areas.

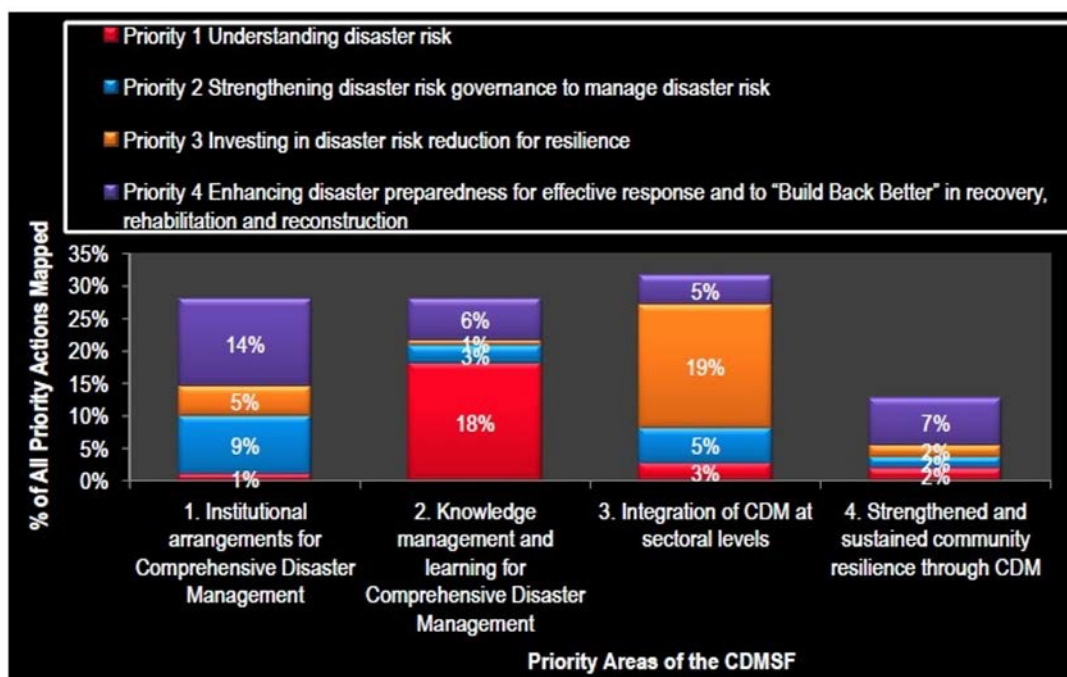


Figure 2: CDMSF Priorities for Action

Source: CDEMA

2.5 Regional Efforts at Mainstreaming

2.5.1 Past Initiatives: 2007–2012 CDM Strategy

The previous iteration of the CDM strategy, 2007–2012, also had sector mainstreaming as a priority. More specifically, Outcome 3, “Disaster Risk Management has been mainstreamed at the national level and incorporated into key sectors of the national economies (including health, tourism, agriculture and nutrition)”. Related outputs to this outcome were:

- CDM is recognised as the roadmap for building resilience, and decision-makers in the public and private sectors understand and take action on Disaster Risk Management;
- Disaster Risk Management capacity has been enhanced for lead sector agencies, national and regional insurance entities, and financial institutions;
- Hazard information and Disaster Risk Management is integrated into sectoral policies, laws, development planning and operations, and decision-making in tourism, health, agriculture and nutrition, planning and infrastructure;
- Prevention, Mitigation, Preparedness, Response, Recovery and Rehabilitation Procedures have been developed and implemented in tourism, health, agriculture and nutrition, planning and infrastructure.

The evaluation of the 2007–2012 CDM Strategy found that much progress had been made with sector mainstreaming. The key findings from this assessment have been documented in the 2014–2024 CDM Strategy as follows:

- a) *The enabling environment (through the presence of model CDM legislation, policies and strategies) at the national level has been selectively advanced in some countries and remains an area of priority for others. Moreover, the degree to which sectors have an enabling environment which increasingly integrate DM, climate and gender considerations was greater than the former strategic period.*
- b) *There was an uneven improvement in terms of the use and adoption of model tools for CDM implementation and especially, a greater emphasis to be placed on monitoring, evaluation and reporting at various levels. There was an overall high positive change in mainstreaming efforts over the period. However, there is still need for a continued focus on the integration of work plans and the provision of resources for CDM implementation at sector level. The congruence of National Sustainable Development Plans or Strategies with sector plans and CDM policies must continue to be supported and aligned. Evidence of the integration of gender into national and sector plans must be increased and the presence and adoption of Emergency Response Plans and Business Continuity Plans must be fostered at the sector level.*

2.5.2 Current Initiative: 2014–2024 Comprehensive Disaster Management (CDM) Strategy

The current CDM strategy has one of its four priority areas dedicated to sector-level CDM mainstreaming. Priority Area 3 (PA3) is *“Improved Integration of CDM at sector levels”* and its related outcomes are:

1. Regional outcome 3.1 (RO 3.1) – Strategic disaster risk management programming for priority sectors improved
2. Regional outcome 3.2 (RO 3.2) – Hazard information integrated into development planning and work programming for priority sectors
3. Regional outcome 3.3 (RO 3.3) – Incentive programmes developed and applied for the promotion of the risk reduction/CCA in infrastructure investment in priority sectors.

The CDM strategy prioritises the seven sectors: Health, Education, Tourism, Agriculture, Civil Society, Finance and Economic Development and Physical Planning and Environment Planning. Four of these (Health, Tourism, Agriculture and Finance) are the focus of this consultancy. The fifth sector included in this assessment, water, is not included in the CDM strategy. Outcome PA3 seeks to address how sector stakeholders plan, coordinate and implement CDM at the national and regional levels by:

- Promoting DM programmes in sectors;
- Integrating hazard and disaster information and concerns into sector development agendas;
- Highlighting the need for investing in disaster-proof measures/initiatives by the sectors;
- Coordinating preparedness, response and recovery efforts amongst various stakeholders.

A performance monitoring framework has been developed, and is the key tool being used to monitor and evaluate the strategy. The outcome indicators for PA3 (RO3.1 – RO3.3) used to determine *‘improved integration of CDM at sectoral levels’* are:

1. RO 3.1 – Number of participating States with sector-specific DRM plans that have been implemented;
2. RO 3.2 – Number of participating States that have integrated normative requirements for risk mitigation;
3. RO 3.3 – Number of participating States applying incentive programmes for DRR and CCA.

The indicators suggest that achieving the outcome for the sector mainstreaming priority area greatly depends on the extent to which participating States put in place plans, appropriate standards, and provide incentives in the priority sectors. The specific country and sector contexts are therefore important factors in determining progress and these include existing progress, strengths, challenges and gaps in mainstreaming.

The CDM governance mechanism (Figure 3) is the vehicle for the implementation of the CDM Strategy. This mechanism includes sector sub-committees for each of the priority sectors created under the CDM Coordination and Harmonization Council (CHC). This mechanism is designed to allow inter-institutional partnership that allows for cooperation, coordination and participation, across and within the sectors.



Figure 3: Composition of the CDM Governance Mechanism

Source: CDEMA

Through the work of the sector sub-committees (SSC), mainstreaming in the sector is expected to be advanced, building on the progress achieved in the previous iteration of the CDM Strategy. Activities expected to be continued and enhanced are:

- a) Developing training materials for sector actors where education and training programmes need to be further developed and implemented for these sector actors. Training and education efforts should address the fundamentals of DRR within a multi-hazard environment. Additionally, the quality of CDM training materials should be enhanced;
- b) Building local/community level capacities for CDM as where local capacity for sector-specific disaster mitigation, preparedness and response is improved, community

mobilisation increased. This will support advocacy for a concomitant increase of resources for communities at risk and individual/family preparedness;

- c) Building sector level capacities for CDM where SSC are strengthened, resources – particularly funding – mobilised, institutional capacities enhanced within the sector, sector DRM strategies developed, and hazard information incorporated into sector planning and development. Improved capacity will also result in emergency plans being either developed or enhanced within the sector, while recovery/reconstruction is enhanced and key sector actors are sensitised about DRM;
- d) Improving information sharing where management systems and services (inventories, directories, etc.) are developed for sectors and levels of information sharing are increased within sectors;
- e) Enhancing collaboration and dialogue (among actors across sectors and at different levels) where coordination among sectors is enhanced, synergies identified and partnerships established, where appropriate, and dialogue and cooperation within and across sectors promoted and improved;
- f) Performing various types of assessments (including risk, vulnerability, needs and capacities) where capacity for disaster damage assessment is enhanced; there are improved methods for predictive multi-risk assessments and socio-economic analysis of risk reduction actions, the capacity for developing and applying methodologies, studies and models is strengthened, and sectoral needs and vulnerability assessments completed at the national level;
- g) Standardising CDM tools and approaches where vulnerability assessment methodologies are consolidated and improved along with risk management protocols developed for the sector.

For the most part, these work programme areas for the sector committees show strong alignment with the assessment tool used to determine the extent to which sectors have progressed with mainstreaming and factors affecting the level of progress.

CDM Audit

Other initiatives aimed at assessing progress and providing a basis for recommendations for improving mainstreaming in the sectors come to the fore in the application of the CDM Audit Tool 2015– 2016. Though the audit is not yet available for scrutiny, CDEMA facilitated its use in a review of national DRR priorities, allowing countries to arrive at their top three national priorities based on the 2014–2024 CDM Strategy. From the discussion, participating countries identified the following as the five priority areas:

- a. Early Warning Systems (EWS)
- b. Community Resilience
- c. Capacity Building, Training and Public Awareness
- d. Institutional Strengthening
- e. Private-Public Partnership.

The report from this event (CDEMA, 2016) notes that “these priorities were also validated by the results emerging from the application of the CDM Audit Tool 2015–2016. These findings are based on an analysis of the CDM Audit Tool results in six countries. Four out of the five priority areas fall under the preparedness category of the audit tool, and only the partnership between the public and private sectors falls under mitigation. Institutional strengthening links to governance in the tool, the application of which found that the integration of CDM into national sector policies and work plans, and the existence of sectoral legislation mandating CDM responsibilities, are weak areas to be addressed. The results show that proper planning frameworks are weak because these sectors generally lack disaster plans which are congruent with national and community CDM plans.

Recommendations from the Audit to address priority areas relevant to sector mainstreaming include:

- Developing and adopting a model of legislation, regulation and policy to manage risk at the regional level, for all sectors;
- Establishing of chairs at appropriate universities within the region to coordinate risk engineering research specific to the region;
- Encouraging the establishment of a regional training centre that can, inter alia, facilitate the Implementation of the Global School Safety Framework (CDEMA’s Model Safe School Programme) throughout the region with a view to harmonisation of approaches to school safety;
- Engaging the private sector directly in advancing disaster risk reduction efforts (e.g., by creating a regional private sector network on DRR, promoting the collaboration between National Disaster Management Offices and National Chambers of Commerce).

3 METHODOLOGY FOR THE ASSESSMENT OF CDM INTEGRATION AND SELECTION OF TWO PRIORITY SECTORS

The CDM integration and prioritisation process included a review and assessment of the policy, legislative, and institutional frameworks which support the integration of CDM into national and sectoral policies. Based on the results of that assessment, two sectors, for which guidelines and action plans will be developed, are recommended

3.1 Assessment of CDM Integration

The Mainstreaming Framework articulated in “Mainstreaming Disaster Risk Reduction into Development at the National Level: A Practical Framework, (UNDP, 2010) was used to assess the level of sector mainstreaming. The mainstreaming DRR Framework is a product of the United Nations Development Programme’s (UNDP) Bureau of Crisis Prevention and Recovery’s (BCPR) Global Mainstreaming Initiative (GMI) for DRR. The identification of a benchmark for assessing mainstreaming based on best practices was an important first step in determining the degree to which CDM is mainstreamed in the five key sectors of Health and Wellness, Water, Tourism, Agriculture and Finance. Each of the key sectors was evaluated against the key components of this framework which was adapted as a CDM assessment and

prioritisation matrix, to identify gaps and opportunities for strengthening and integrating CDM in sectors.

3.2 Selection of Mainstreaming DRR Framework, Tool Development and Adaptation

In determining which framework would be most suitable for the project, the EKACDM team used four (4) main factors: (1) the comprehensiveness of the framework and the extent to which it incorporates the main elements of mainstreaming, particularly, the policy dimension of mainstreaming; (2) the applicability of the framework to the diverse sectors to be assessed; (3) the soundness of the methodological approach used in its development; and (4) its ability to be used in the ensuing deliverables, such as the mainstreaming framework, guidelines and action plans for the prioritised sectors.

Several frameworks were considered for this assessment of CDM integration, and later, as part of the prioritisation process for selection of the key priority sectors. The key ones were the *Mainstreaming Disaster Risk Reduction: A Tool for Development Organizations* (Tearfund, 2005), *Hyogo Framework for Action (HFA) Monitoring and Progress Review*, and *Status of Incorporation of Disaster Risk Management and Climate Change Adaptation in National Public Investment Systems* (IDB, 2016). To facilitate an objective selection of the fundamental framework for the selection of the framework, each of the four frameworks/tools were evaluated using the four criteria above and a simple rating scale applied. The rating scale measured the extent to which the framework or tool met each criterion. The matrix in Table 2 summarises the findings from this process. The UNDP framework was considered the most comprehensive and was therefore selected and adapted for use in the assessment.

Table 2: Comparison of Frameworks Consulted for Tool Selection and Development

		<i>Frameworks/Tools</i>			
Criteria	Definition	<i>Mainstreaming Disaster Risk Reduction in to Development at the National Level: A Practical Framework, (UNDP, 2010)</i>	<i>HFA Monitor – Hyogo Framework of Action</i>	<i>Status of Incorporation of Disaster Risk Management and Climate Change Adaptation in National Public Investment Systems (IDB, 2016)</i>	<i>Mainstreaming Disaster Risk Reduction: A Tool for Development Organizations (Tearfund, 2005)</i>
		Rating Scale 5 – The criteria have been fully met. All aspects of the criteria are present in the framework/tool 3 – The criteria have been partially met. Some features are present, but not sufficient 1 – The criteria has not been met or only to a small extent			
Comprehensiveness of the framework	The extent to which it incorporates the main elements of mainstreaming, particularly, the policy dimension of mainstreaming	5	5	5	5
Applicability of the framework to the diverse sectors that are to be assessed	Suitability of the tool/framework for assessing CDM mainstreaming in all target sectors	3	3	1	3
Soundness of the methodological approach used in its development	The application of international, national or peer-agreed standards, guidelines, and practices to produce the outputs	5	5	5	3
Ability to be used in the ensuing deliverables	Ability of the framework/tool to be used in the policy framework and guideline deliverables for the project	5	3	1	1
Total Score		18	16	12	12

Source: reThink, 2017

3.2.1 Tearfund's Mainstreaming Framework

Tearfund's *Mainstreaming Disaster Risk Reduction: A Tool for Development Organizations* was developed by that organisation in 2005. It is a tool to help organisations develop frameworks for mainstreaming disaster risk reduction into their relief and development planning and programming. It is considered significant as it is one of the earliest attempts at developing a tool for DRR mainstreaming.

The tool hinges on earlier research by that organisation in 2003 on the policies and practices of institutional donors in DRR, which found that donors needed to do more to achieve progress in integrating DRR in planning and programming. Consequently, the tool has performance targets and indicators to help monitor integration of DRR in sectoral policies and programmes. The targets and indicators are broad in scope, and are suggested as templates for measuring mainstreaming.

Six key areas of mainstreaming are identified by the tool and they were adapted from the Humanitarian Practice Network's Good Practice Review on disaster risk reduction (Twigg, 2004). These key areas are policy, strategy, geographical planning, project cycle management, external relations, and institutional capacity.

The targets were expected to enable organisations:

- To recognise where they are, or what stage they have reached in mainstreaming risk reduction activities into their ongoing relief and development work;
- To identify priority issues to be addressed and develop a mainstreaming strategy over a period of time, with definable, realistic and measurable goals.

Additionally, the tool provides a guide for identifying some of the "key influences on mainstreaming". These influences include areas such as institutional blockages, institutional capacity, lack of leadership, and time.

a. Key Benefit of the Tool

Tearfund has indicated that the tool, including targets and indicators, can be adapted to suit different contexts and purposes. The major area that was adapted to the current assignment is the definition of the levels of attainment, which contains four levels: one to four. The indicators were not adopted because the key components of mainstreaming were not sufficiently comprehensive, and the associated indicators/targets were not applicable or specific enough for the purpose.

3.2.2 Hyogo Framework of Action Monitoring Tool (HFA Monitor)

The HFA monitor was developed through a multi-stakeholder engagement process as a means of measuring progress in the implementation of the *Hyogo Framework for Action 2005–2015: Building the resilience of nations and communities to disasters (HFA)*.

The focal points at the national level, who coordinate the biennial HFA progress review process, are the primary audience of this guidance note.

The HFA monitor was developed specifically for use in measuring progress against the outcomes, strategic goals, the five priority for action (and associated sub-sections), the drivers of progress and future outlook contained in the Hyogo Framework of Action: 2010–2015 (HFA). The following are the five priorities for action in 2005 that mainly comprise the framework:

1. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation;
2. Identify, assess, and monitor disaster risks, and enhance early warning;
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels;
4. Reduce the underlying risk factors;
5. Strengthen disaster preparedness for effective response at all levels.

Each priority action has 3–6 sub-sections for which core indicators and specific means of verifications were identified. The extent to which each means of verification has been attained for the sub-section was measured using five levels of attainment.

The HFA monitor was specifically designed to measure progress with respect to the priority actions, and goals in the HFA. The tool is therefore specific to this particular framework and the priority actions are not based on the key areas of mainstreaming, but on the actions unique to this framework. Its application is therefore very limited for the sector assessment of CDM integration.

a. Key Benefits

Nonetheless, this framework has elements that were useful for the sector assessment of CDM integration in the Caribbean, and the following were adopted:

- The multi-stakeholder engagement and feedback in the assessment process;
- The use of means of verification in the assessment process and this ‘means of verification’ is a set of checklists that provides a lead to the level of progress achieved and also provides evidence of progress in some of the specific areas;
- The description/explanation of the scope of each core indicator;
- Visual presentation of the progress.

3.2.3 Status of Incorporation of Disaster Risk Management and Climate Change Adaptation in National Public Investment Systems (NPIS)

This report was prepared by IDB based on a methodology they developed to assess the status of, and progress in the incorporation of DRM and climate change adaptation (CCA) in National Public Investment Systems (NPIS) of its borrowing countries. The methodology includes five (5) parameters and 23 associated parameters which are assessed to determine

the extent to which DRM and CCA have been integrated in development policies and programmes. Following are the areas of assessment:

- (i) institutional framework for NPIS;
- (ii) development of conceptual models, methodologies and tools to incorporate DRM in Public Investment Projects (PIP);
- (iii) dissemination, training, technical support, and information on the incorporation of DRM and CCA in NPIS;
- (iv) policy consensus and follow-up on the gradual adoption of technical tools for the incorporation of DRM in NPIS; and
- (v) mechanisms of control.

a) Key Benefit

The main application of this study to the current assessment of CDM is the description of the various levels of attainment. This was compared and adapted to those of Tearfund and HFA to determine the final description of the four levels of attainment used in the sector assessment.

3.3 Framework Selection

The UNDP's GMI Framework ranked higher than the other frameworks as it met all the requirements that were important in the selection of the assessment tool. These factors are discussed in greater detail below.

A. Soundness of Methodology used in Developing the Framework

The UNDP has indicated that the process for developing the framework included a combination of consultations with UNDP country offices and partners, and a thorough literature review process that incorporated:

- I. **Learning from Existing DRR Mainstreaming Tools and other Cross-cutting Issues** – A number of tools is available for mainstreaming and in developing the framework, UNDP consulted “a range of tools and frameworks on mainstreaming...” (UNDP, 2010). The tools consulted were diverse and relate to mainstreaming at the organisational, country, and thematic levels. UNDP found that a shortcoming of existing tools was specificity of application; the way they were developed made it difficult to apply them to other contexts or organisations given that the process of mainstreaming is rarely ever the same;
- II. **Developing the appropriate Model** – In addition to conceptual frameworks for mainstreaming DRR, the development of the model also factors models for mainstreaming in other thematic and cross-cutting areas such as gender. The framework builds on and adapts from a gender mainstreaming model called “web of institutionalization” which evolved out of a consultancy assignment of the Gender Policy and Planning Programme at the University College of London's (UCL) Development Planning Unit (UNDP, 2010).

B. Model of Mainstreaming

In UNDP's review of literature and other models of mainstreaming, it was noted that mainstreaming is generally viewed as a linear, step-by-step process, with no guidance on how the interlinkages may occur or the various entry points for mainstreaming based on the national, local or organisational contexts. This framework compiles the various experiences and "... presents them in a comprehensive and flexible web of components" (UNDP, 2010) rather than as a step-by-step process. That way, the concept of DRR mainstreaming is represented as an integration of DRR issues in the policy, organisation, citizen advocacy, and knowledge and implementation spheres. This is a more refined and comprehensive perspective than the traditional view of DRR mainstreaming as an integration of DRR in policies, plans, programmes and projects. The model also presents each sphere as interconnected, and is a response to other models that ignore this complexity in the relationship among the spheres.

C. Applicability of the Model for Assessing CDM Integration in the Sectors

Using this model of mainstreaming, the UNDP framework can be applied to the national or local level, or to specific organisations and agencies. The tool itself and the findings from the tool are suitable for use by a range of target users that includes government, development partners, NGOs and other agencies. The model of mainstreaming included and adopted best practices from other thematic areas such as gender. It is therefore suitable for sectoral application across the different country contexts where the EKACDM project is focused. It is similarly suitable for integrating information into the project's cross-cutting themes: gender mainstreaming, climate change, environment and information and communications technology.

C. Use of the Framework as a Planning Tool for Development of Action Plans and Sector Guidelines

The final reason this tool was selected as the conceptual model for the assessment of the CDM integration is the suitability of the framework as a basis for the development of the action plans, framework and guidelines for the prioritised sectors.

One of its main **uses is as a diagnostic tool**. The framework is ideal for systematically mapping and assessing the status of DRR, and providing the supporting data to justify this assessment. This information can then be used to develop or revise existing DRR mainstreaming strategies. Additionally, it can be **used as a stocktaking tool** for measuring progress. For this purpose, a checklist has to be developed from this framework or a list of questions and indicators can be developed to assess the extent to which DRR has already been integrated into each component and to identify barriers to mainstreaming (UNDP, 2010).

For this project, the framework was adapted to function both as a diagnostic and stock taking tool to assess the extent to which CDM has been included in national and sectoral

policies and plans (see description of Tool, 4.1.1). The same tool can be applied at a later date to measure the progress of the sectors in DRR mainstreaming. The tool is also the basis for the development of the guidelines, and the findings from the diagnosis will be the basis for the development of the action plans for the prioritised sectors. In this regard, it serves **as a planning tool for operationalising mainstreaming**, a use that is also listed among UNDP's application of the framework.

The key areas of mainstreaming identified in Tearfund's tool are less comprehensive than those of UNDP's. While there is similarity in the policy sphere, UNDP's framework subsumes the other key areas in the policy or the other four spheres of their framework, making the latter far more comprehensive in its application to the DRM framework and as the basis for the development of a tool for mainstreaming.

3.4 Description of the Framework

The UNDP's GMI Mainstreaming DRR Framework (Figure 4) has five interconnected spheres/domains. These are:

1. **Policy:** In this domain, mainstreaming activities assess the extent to which DRR/CDM considerations have been included and/or implemented in policies, plans, legislation, and programmes. It also examines the extent to which political commitment, resource mobilisation and allocation are in place to support these plans. The sub-components of the policy sphere are:
 - a. **Political Commitment and Leadership** – These are important drivers for mainstreaming as they determine the extent to which policies and laws supporting DRR are implemented. Leadership is necessary to ensure that DRR is an agenda item, and ensures that a vision for DRR is created and leads the process of development or reform of policies. The leadership for DRR should include at least one high-level political champion (UNDP, 2010) who will drive the DRR process and provide the support to create the environment for other DRR leaders to effect change at the policy level;
 - b. **Strategies, Policies and Planning** – The political commitment and leadership are expected to be translated into strategies, policies and plans for DRR (UNDP, 2010). It is strongly recommended that existing plans and policies be analysed prior to the development of new policies or plans. In that way, gaps are identified and addressed, eliminating duplication. A second recommendation is that plans must include high-level national plans and policies, such as national development plans, multi-year strategic plans, and international strategies, for example, a Poverty Reduction Strategy, and Sustainable Development Goals. These are necessary to set the context and results for DRR;
 - c. **Legislations and Regulations** – Legislations and regulations create an enabling environment for DRM. They set out the rights of citizens and other stakeholders, duties of the state and other stakeholders, enforcement procedures, penalties or incentives for DRR, and standards for DRR;
 - d. **Resource Mobilisation and Allocation** – The framework requires that political commitment and legislative actions be backed by adequate resources to

ensure that leaders translate policies and laws into action through implementation. Resource provision depends on an adequate understanding of the economic impact of disasters, and the related impact on development goals. Allocations must be further informed by cost-benefit analysis or other economic appraisal tools that ensure value for investment. Whilst there is need for dedicated budget lines for DRM, it is recommended that such budgets be calculated as a budget in existing development processes and activities instead of creating separate budget lines.



Figure 4: UNDP's Global Mainstreaming Initiative (GMI) Framework

2. **Organisation/Institutional Capacity and Leadership Commitment:** This evaluates whether the institutional arrangements and necessary capacity are in place to support the CDM mainstreaming process. It includes such elements as organisational rules, procedures and incentives. The sub-components of this sphere are:
 - a. **Locale of Responsibility** – To avoid a situation where DRR becomes everybody's business and nobody's responsibility, it is necessary that countries appoint a nodal agency with responsibility for DRR. This should also be followed by focal points whose responsibility at the organisational level include ensuring that DRR is mainstreamed in the functions at the organisational and/or departmental levels. *"At the organizational level, leadership for DRR issues in each department or section will reinforce and support its integration into sectoral development plans and ensure that resources get allocated to carry them out. It may make sense to allocate responsibilities and resources for DRR*

integration to key individuals or focal points” (UNDP, 2010). The success of focal points is strongly hinged on their level of training, their ability to operate in a network and the strength of their linkage to the nodal DRM agencies.

- b. **Internal Procedures and Incentives** – Focal points are most effective when their responsibilities for DRR are reinforced through internal procedures and incentives. It is also important that these procedures be routinised and take place at the appropriate junctures in the programme cycle. The procedures can include tools such as templates, checklists, coordination mechanisms, etc. Incentives, for example, reward and recognition can drive focal points to develop these additional tools which are often seen as additional workloads.
 - c. **Capacity Development** – Capacity development covers a wide range of activities which include creating and developing capacities, and also managing, using and retaining these capacities. Relevant capacities for DRR include building awareness of DRR and developing technical and functional capacities to implement DRR. The starting point for capacity development is the engagement of stakeholders to promote awareness of DRR and it is strongly interrelated to the advocacy and knowledge sphere.
 - d. **Coordination and Partnerships** – DRR is inherently complex and requires a multi-level approach. It is therefore important that multiple stakeholders be engaged in the process through coordination and building partnerships with internal and external partners. Coordination mechanisms should be formalised at the national level, among NGOs, the private sector, and scientific and academic institutions.
- 3. Advocacy and Knowledge:** The advocacy and knowledge sphere is at the heart of any DRR mainstreaming strategy and may include advocacy for policy reforms, organisational change, implementing pilot projects or supporting community resilience building. This sphere assesses the extent of inclusion/adoption of methods, tools, and good practices based on exchange and co-operation of regional and international research institutions. The sub-components of this sphere are:
- a. **Awareness Raising and Advocacy** – The integration of DRR in development activities requires that effort be placed on awareness raising as a means of empowering decision-makers and the general public about DRR goals. Advocacy strategies are also important as they help to mobilise persons around DRR, promote research about risk, raise awareness, and lobby governments and other stakeholders to make DRR a priority agenda item. To be effective, advocacy messages must be targeted to specific groups, connecting DRR to their interests and needs.
 - b. **Methods and Analytical Tools** – Tools and methods for assessing or integrating DRR into development are critical as they provide the basis for mitigation and prevention solutions. These tools and methods should be applied from the pre-project phase (e.g., Environmental Impact Assessments, cost-benefit analyses), to post-project phase (post-M & E damage impact assessments). Risk and vulnerability studies are essential to DRR mainstreaming, and similar to other tools and techniques, they should be adapted to address issues through a DRR lens, and include cross-cutting themes, such as gender, environment and climate change. Technology, such as geographic information systems (GIS), should be used in the process, and a

range of information and communication technology used to disseminate the findings.

- c. **Research and Education** – Research by academic and non-academic institutions is important for DRR. These research projects are important for advocacy and awareness raising, and can focus on hazards, their impact, or ways to reduce the associated risks. The education sector also has a role to play as children at all levels should be exposed to DRR knowledge through the formal curricula and through integrated activities, such as drills and simulation exercises. At the tertiary level, professional courses and specialist degree programmes can help to build the capacity of technocrats and experts who have to interact with DRR issues in their sectors.
 - d. **Promotion of Good Practice** – Dissemination of good practices is a key component of advocacy and awareness. *“A good practice is a technique, method, process, or activity that is believed to be more effective at delivering a particular outcome than others when applied to a particular condition or circumstance.”* (UNDP, 2010). These good practices often showcase benefits to DRR and all available methods to promote these good practices should be used. These include journals, documentaries, media stories, workshops, and conferences.
4. **Citizen Participation: This process** evaluates participation of communities in decision-making and the extent to which NGOs, civil society institutions, and community-based organisations are involved in the goal of DRR and climate change adaptation (CCA). Like other spheres, this has four sub-elements:
- a. **Participation of Communities** – The framework recognises that with community participation, there is increased ownership and buy-in for development activities. This, in turn, increases the efficiency and sustainability of development and ultimately makes DRR more successful. Community-based organisations are therefore integral in the mainstreaming process and should be empowered to participate in the process.
 - b. **Representative Civil Society** – Civil society groups have a keen role to play in representing the diverse views and interests of stakeholders at the community level especially at the policy level. It is the role of civil society to ensure that policy decisions adequately include diverse and vulnerable groups, and not only powerful and well connected groups.
 - c. **Accountable Political Structures** – The framework recognises that *“for sustained DRR mainstreaming, vulnerable communities need to be able to actively engage with accountable political structures through the formal political system. Decentralization is believed to promote sharing of responsibilities between central, regional and local levels and foster participation”*. (UNDP, 2010). Though decentralization is critical, it should be coupled with other systems such as grievance and complaints systems and the development of the DRR capacity of local government officials.
 - d. **Pressure of Political Constituents** – This sub-element is predicated on the notion that constituents can apply pressure to elected officials forcing them to respond to these demands. Whilst there is a general lack of interest and support for DRR issues, civil society can build awareness and mobilise

communities around DRR, essentially lobbying local representatives to focus on DRR issues. To better equip communities to represent their interests, advocacy groups can train them in advocacy techniques.

5. **Implementation:** This component focuses on risk-proofing investments, monitoring and evaluation of projects, and compliance and enforcement of laws and regulations. Elements of the implementation sphere include:

- a. **Risk-proofing Investments** – The essence of this sub-element is that new physical developments should consider risk in their design and implementation, and should not create any new risks for the development itself or for other existing or proposed developments. This is linked to the knowledge and advocacy sphere where tools and methods should be developed to calculate and anticipate risks. These may include hazard, vulnerability, and risk assessment. The findings from these assessments should inform construction design standards that ensure developments are hazard-proof. Also linked to knowledge and advocacy is the need to build capacity among developers and technical agencies, through training, equipping them with the appropriate skills to integrate DRR in the development. This sub-element promotes the notion that hazard-proofing development is an investment for which the return is resilience to hazards. This return should also be quantified using the appropriate tools and methods.
- b. **Compliance and Enforcement** – Regulations relating to land-use planning and building codes are useful for reducing risk and often contain enforcement and compliance procedures. Where enforcement is lacking, or where compliance is not forced, there may be an adverse impact from development. Also linked to the knowledge and advocacy sphere is the need for technocrats to be trained and certified in these areas to enhance adherence to codes and standards, and enforce appropriately, where necessary.
- c. **Monitoring and Evaluation (M&E)** – M&E in DRR is important and should be implemented at various points during project and programme cycles to assess progress and implement corrective actions, where necessary. Similarly, at the sector and national levels, M&E needs to take place at outcome and impact levels as it helps to determine national and sectoral strategies and priorities.
- d. **Pilot Projects** – Pilot projects demonstrate the benefits of mainstreaming DRR and are strongly linked to promotion of good practice in the knowledge and advocacy sphere. However, pilot projects should not be a substitute for long-term planning and ongoing implementation of DRR projects or projects that integrate DRR.

In addition to the spheres and their sub-elements, the framework contains examples of guiding questions that can be used to assess DRR mainstreaming for each sphere and it also has examples of signs of mainstreaming that include results/outputs/activities that illustrate progress in mainstreaming. These sample guiding questions and signs of mainstreaming formed the basis of a tool developed from this framework to assess the extent to which CDM has been included in the

policy domain of each of the five sectors.

3.4.1 Links between the Spheres/Domains

As previously mentioned, the “webbed” concept of mainstreaming means that all spheres are linked, and these linkages will have to be considered in developing the action plan and guidelines. For example, the implementation sphere is linked to advocacy. When pilot projects are implemented, it is an opportunity to showcase examples of how innovative initiatives or tools can reduce risk. If the projects are developed and implemented and the associated sharing and dissemination do not take place, the opportunity to demonstrate a successful DRR initiative may not be realised, and this may affect replication or scaling up of the initiative. Education and awareness are a critical part of the advocacy sphere, while pilot projects are a part of the implementation sphere.

Although the project’s emphasis is on the policy sphere, all five spheres of the framework have been assessed. The focus on the other four spheres of the framework allows a more comprehensive analysis of the gaps in all the elements of mainstreaming. This will ensure the identification of key gaps and issues to be addressed in the action plan, some of which may affect or be affected by the policy domain. This interconnected approach presented by the framework will also be useful in the development of the guidelines.

3.5 Adaptation of UNDP’s GMI Framework for Assessment and Prioritisation of CDM Mainstreaming in the Sectors

The framework provides guidelines for identifying the issues or critical areas that need to be prioritised to make mainstreaming more effective. However, in the comparison of existing tools and frameworks in Section 3.2, the UNDP framework did not meet the maximum score for the suitability for assessment of CDM mainstreaming in the sectors and therefore, the framework was adapted and developed into a matrix to make it fit for purpose.

3.5.1 Sector Level

The UNDP GMI Framework was used to assess the level to which CDM is included in national and sectoral policies and plans for the five priority sectors. A matrix was designed to allow an in-depth assessment of key indicators for mainstreaming under the five spheres (see Figure 4 above). Each thematic area was broken down into its four main sub-components and indicators developed for each sub-component based on the guiding questions presented in the framework. The tool also consisted of associated means of verification for each indicator in the five domains and their related sub-elements. In its elaboration of the five spheres of mainstreaming, the framework provides examples of guiding questions that were used as indicators of mainstreaming, and of signs of progress in each sphere that served as means of verification for each guiding question/indicator. By including a means of verification, the assessment was more focused and consistent across all sectors.

For ease of use, a description of each sphere and its sub-components was included in the matrix.

A rating scale was developed for each indicator as indicated below in Table 3. The rating scale was developed based on a review of three main frameworks with similar ratings/levels of attainment of DRR progress or mainstreaming. These include:

- United Nation's Office for Disaster Risk Reduction's (UNISDR) HFA Monitor and local self-assessment tools;
- Tearfund's "Mainstreaming Disaster Risk Reduction: A tool for Development Organizations" (Tearfund, 2005);
- Status of Incorporation of Disaster Risk Management and Climate Change Adaptation in National Public Investment Systems (IDB, 2016).

Table 3: Rating and Criteria

Level/Rating	Criteria
1	There is ad hoc, little or no progress and no immediate plans for addressing this criteria are in place
2	Progress has been made, but not sustained and there is still need for significant improvement and finalization of drafts or incomplete actions
3	Some progress made with some tangible achievements, but there are noticeable deficiencies and strengthening is required
4	Substantial and sustained progress has been achieved.

The rating guide was used to assess the extent to which each indicator was met based on the means of verification. Though the indicators were developed based on UNDP's sample guiding questions, further desk research was conducted, and they were found to be consistent with those that are typically used for measuring/evaluating each of the domains.

Weights were assigned to each domain and this signified the level of importance of each sphere/domain relative to each other (Table 4).

Table 4: Weights and Meaning

Weights	Sphere
5	Policy
3	Organisation
3	Projects/Implementation
5	Advocacy & Knowledge
3	Citizen

Weights	Meaning
5	Very important
3	Moderately Important
1	Low importance
0	Not important

The weights were applied to each domain based on its level of importance in the project, that is, the extent to which the project objectives, outputs and outcomes are focused around those spheres.

A column was included for explanation of the rating that was applied. This facilitated an understanding of actions/initiatives that are being undertaken towards sector mainstreaming, and conversely, this description also identifies gaps and challenges that justify the ratings applied to the indicators.

The matrix facilitated an analysis of the sub-components that have not been adequately mainstreamed, as well as successes in mainstreaming, and will form the basis for recommendations of the sectors in policy framework, guidelines, and action plans for mainstreaming CDM in sector policies will be developed. The Prioritisation Matrix is provided in Appendix 1.

3.5.2 Source of Data

The main source of data used to determine the rating for each indicator was data collected from the stakeholder workshop. The primary aim of the workshop was to serve as a forum to gather information on DRR mainstreaming at the sectoral level. This method was patterned from UNISDR in its administration of the HFA Monitoring tool. The latter tool was developed to monitor and assess the progress of DRR based on the priorities of the Hyogo Framework of Action 2010–2015 at national and local levels using the HFA monitor and local self-assessment tools. Countries were encouraged to engage multiple stakeholders in the review process. In a similar manner, multiple stakeholders from each sector were invited to participate in the assessment process (Table 1 and Appendix 2).

The stakeholder data collection workshops were held over 2-day periods in all three target countries. In each workshop, stakeholders were grouped based on the sectors they represented. Guided by a facilitator, each group discussed and assessed the indicators of mainstreaming for each sub-element and assigned a rating based on the evidence justifying the level of progress/action/work being done in the sector related to the indicator. The evidentiary support to justify the rating was collated in the comments section of the matrix and was documented by a nominated note-taker from the group.

Consultants' prior research was also integrated in the workshop and used in the facilitation process mainly to draw reference to specific examples of actions being undertaken, analyse the level of success of initiatives, and ensure that all available information was incorporated in the assessment.

The output from the workshop was a completed matrix that facilitated an assessment of CDM integration in the five key sectors. From this matrix, scores for each sector were computed and informed the prioritisation of the two key sectors (Appendix 1 – Prioritisation Matrix).

3.5.3 Computation of Sector Scores – Level of Mainstreaming

The final sector score for each sector compares the actual rating achieved by the sector with the maximum rating possible for all domains. This gives an indication of the level of CDM integration based on the indicators used and more specifically, the means of verification included in the matrix. The scores are represented as percentage and measured against the maximum possible score of 100%.

In the computation of the final score, consideration was given to how findings from the HFA monitor were used to represent progress. In that case, scores were aggregated from the over 100 countries that assessed their progress using this tool, and an average score was calculated for each priority area and compared with actual scores for the priority area. The same method was used for all 3 HFA review cycles as outlined in the Global Assessment Report (GAR), (UNISDR, 2015).

This assessment was conducted in 3 countries compared with 114 for the HFA assessment. It is also a more accurate way of representing the data than using the average, as the latter can sometimes distort data, especially where there are large gaps between maximum and minimum scores. Finally, the HFA monitor included only a rating scale with no weightings applied to each priority action. This made computation of the scores a much simpler process than with this current assessment.

To compute the score for each sector, the category weight, domain weight, and rating were considered.

- a) Calculation of weighted score for each domain – the weighted score for each domain was calculated by finding the sum of the ratings for all indicators in the domain and dividing it by the maximum possible score for the domain (sum of maximum for the domain if all indicators achieved maximum rating). This was then multiplied by the weight for the domain.

$$\text{Weighted Score for each domain} = \frac{\sum \text{ratings/(scores) for all indicators for domain}}{\text{Maximum score for the domain}} \times \text{Domain weight}$$

- b) Calculation of total weighted score for all 5 domains – this was calculated by summing the weighted scores for each domain and dividing by the sum of the weights for all the domains.

$$\text{Total Weighted Score for All domains} = \frac{\sum \text{weighted scores for all domains}}{\sum \text{weights for all domains}}$$

- c) Calculation of final weighted category score for tier 1 – level of mainstreaming – the final weighted score was calculated by multiplying the total weighted score for all domains by the category weight for tier 1 – level of mainstreaming.

$$\text{Final Category Score "Level of Mainstreaming"} = \text{Total Weighted Score for All Domains} \times \text{Category weight}$$

The CDM mainstreaming scores were further categorised and defined as follows in Table 5:

Table 5: Mainstreaming Scores

Priority	Mainstreaming Scores	Description
Low	0 – 2.9	Level of mainstreaming is low; significant actions required to integrate DRR in sector activities and therefore should be prioritised for sector DRR mainstreaming interventions
Moderate	3.0 – 4.5	Identifiable actions have taken place, progress is steady, but needs continuous actions to enhance DRR mainstreaming
High	4.6 – 6	Progress achieved is substantial and sustained. Continuous mainstreaming by the sector is recommended.

3.5.4 Validation of the Tier 1 – Level of Mainstreaming

The validation of the findings for this tier of the prioritisation process was done by workshop participants from each sector in each country. The data gathered from the workshop was transcribed in electronic format and emailed to key representatives from each sector who were requested to:

- a. Review the ratings applied to each indicator as well as the associated comments and make changes, where necessary;
 - Insert missing ratings and comments, where necessary;
 - Indicate, if necessary, sources of the most up-to-date data and accurate information in each sector;
 - Ensure that the revised matrix is reviewed and approved by a senior sector official.

3.5.5 Assessment of Economic Importance

The methodology considered that, in addition to the level of mainstreaming, the selection of the two priority sectors could consider the importance of the sector to the economy of the target countries³. The two indicators of economic importance selected were the percentage contribution of each sector to the Gross Domestic Product (GDP) and number of persons employed in each of the priority sectors of the focus countries. These were selected based on research that showed that GDP was the most popular indicator of economic performance. Employment was also among the top 10 indicators and in addition, consideration was given to availability of data.

3.5.6 National Level CDM Mainstreaming

A tool was developed to undertake a brief and general scan of CDM integration at the national level. The purpose for this assessment was to set the context for the assessment of CDM integration at the sector level by providing a general understanding of the CDM mainstreaming at the national level. It also showed the linkage between national mechanisms and frameworks with those of the sectors.

The tool is a summarised version of the sector assessment tool and includes only two of the four sub-elements in each sphere, some of which have been modified and/or condensed to make them more relevant to the national level and facilitate a general assessment. These sub-elements were selected by the consultants as they were considered the more fundamental elements for mainstreaming that are featured in the EKACDM Initiative.

Four qualitative ratings, low, medium, moderately high, and high, were used to assess each sub-element/indicator. The definition of each rating was directly related to each of the indicators being assessed (Appendix 1). That way, the assessment provided a selection of the qualitative ratings that was most applicable to each indicator. A comments column was also included to provide further elaboration of the rating selected, if required.

3.6 Selection of the Two Priority Sectors

The assessment matrix described above allowed for an objective scoring system that was based on the weights and ratings, which yielded the priority sectors. The level of mainstreaming scores was classified and assigned High, Moderate and Low Priorities. **The sectors with the lowest overall scores were selected as the priority sectors** as the low scores indicate a low level of mainstreaming, that is, when assessed against the five domains and their related sub-elements, these sectors were either at inception stage with their CDM integration or the process was ad hoc and unsustainable.

³ This was agreed as an important factor at the Inception Meeting with the client.

3.7 Limitations

The following constraints were encountered during the execution of this assessment:

- a. Due to the inconsistency of the GDP and employment data, this level of assessment was eliminated from the final prioritisation process. The inconsistencies were due to the absence of discrete data on both measures for some sectors, such as health and water. GDP data was grouped with other sectors/sub-sectors and the groups were not consistent across all countries. A similar situation was also encountered for employment data, along with the additional challenge that data was not consistently available for the same time periods across all three countries. These challenges ultimately led to the elimination of the economic importance variable from the final prioritisation decision;
- b. The quality of some of the comments from the workshops was insufficient to justify the ratings applied. Though discussions were robust at the workshops, the persons assigned as note-takers for the group, in some instances, did not document all aspects of the discussions to sufficiently justify the ratings in the completed matrix;
- c. All of the targeted sectors did not participate in the workshop for each country due to various reasons, and several efforts to make alternative arrangements were unsuccessful. These missing sectors could possibly have changed the outcome of the selection process. Sectors for which no assessment were completed are:
 - i. Dominica – Health sector
 - ii. Antigua and Barbuda – Tourism sector
 - iii. St Lucia – Finance Sector;
- d. Most sectors did not provide validation feedback. This could potentially affect the accuracy of the ratings and comments as these may have changed upon review. However, the overall score for each sector may not have changed as increases or decreases in ratings may set-off each other. Additionally, the final scores were further categorised and the values placed in ranges. Therefore, unless there were significant changes in the scores, that could not be set-off by increases and decreases in the ratings as small changes could possibly not affect the final score;
- e. Some sectors did not have the mix of strategic/policy level and operational level representatives to enable a comprehensive view of the mainstreaming efforts of the sector. To address this challenge, the facilitators encouraged sector representatives to seek clarification and input by telephone during the workshop from sector stakeholders and other persons who were not present. Because of the interconnected nature of some of the sector activities, representatives from other sectors were able to clarify or add input to some of the sector discussions. Additionally, participants were allowed to access documents from websites or local storage devices to enable the most accurate rating possible;
- f. In Antigua and Barbuda, in particular, the level of synergy among some groups was low and this affected the robustness of some the sector discussions;
- g. There were competing priorities in all countries. In Dominica, two other workshops were being held that required a similar set of sector representatives. In all countries, participants indicated that activities related to the end of the financial year constrained participation of some key sector representatives. Consequently, some key sector representatives were only present on one day, arrived late or departed early requiring adjustments to facilitation and the agenda (see h. below) to incorporate their participation. To ensure the quality of facilitation was

maintained, groups that were less knowledgeable in DRR were given greater attention, and adjustments were made by facilitators to ensure thorough understanding and application of the tool;

- h. In some instances, the number of sector representatives who completed the matrix was small, and this may affect the comprehensiveness of the ratings and comments. Where that occurred, the National Disaster Organisations confirmed that the persons were knowledgeable about DRR and the work of the sectors as they were either focal points or actively involved in DRR in the sector.

Despite the limitations, the findings can be accepted as satisfactorily representing the level of CDM integration in the sectors as reasonable mitigative steps were taken to reduce the impact of the limitations encountered.

4 FINDINGS: ASSESSMENT OF CDM INTEGRATION IN ANTIGUA AND BARBUDA, DOMINICA, AND ST LUCIA

The findings of the review show that all three countries have legislative frameworks and institutional arrangements established to advance the DRM agenda. All three countries have enacted legislation and developed and/or adopted policies and plans which generally set the basis for DRM mainstreaming. This is important, as sufficient and appropriate legislative arrangements form a key component of an enabling environment for disaster risk management (Britton, 2006; Pelling and Holloway, 2006).

The national disaster offices, by ensuring that the issue remains a national priority, are the champions of DRM. However, human resource and budgetary constraints have hampered progress in fully operationalising policies and plans. Despite these constraints, some progress on mainstreaming DRR activities has been made through partnerships with donor agencies.

St Lucia and Antigua and Barbuda have had much success in the dissemination of information to build a culture of safety and overall resilience through community-based disaster management programmes. Dominica has made limited progress in this area.

All countries reported that there are no established mechanisms to ensure that gender is mainstreamed in all policies, including those related to CDM and DRR. While there is recognition of gender as a cross-cutting issue, there is need for greater research to facilitate a better understanding which would serve as the basis for incorporating this concern in national programmes.

The detailed findings for each country are presented below, and look at the overall CDM mainstreaming progress and challenges. The status of CDM integration in the five sectors is also examined for each country. In keeping with the methodology outlined in

Section 3⁴, two priority sectors are identified for each country, and then a final selection is made, across islands, of the sectors for which the development of policy guidelines are recommended.

4.1 Antigua and Barbuda

Antigua and Barbuda has population of 90,000, of which 1,200 reside in Barbuda. The country's economy is heavily dependent on natural resources, low-lying coastal zones, and favourable climate conditions to support the tourism sector, which accounts for about 70% of output gross domestic product (GDP), about 70% of direct and indirect employment and 85% of foreign exchange earnings.

Antigua and Barbuda, like most SIDS, is vulnerable to natural disasters. These events often negatively affect the island's small economy, impacting key sectors such as tourism. Antigua and Barbuda is recognised as one of the 15 most vulnerable countries (external economic shocks and natural disasters) in the Commonwealth, according to the Commonwealth Vulnerability Index (CDB, 2003). Between 1989 and 1999, the country was impacted by seven tropical systems, which resulted in damages and losses of US\$1.5 billion. In fact, damages and losses associated with Hurricane Luis in 1995, was estimated at 65% of Gross Domestic Product (Table 6).

Table 6: Summary of Disasters and Associated Economic Losses in Antigua and Barbuda

Event/Year	Economic Impact		Affected Population
	\$EC	\$US	
Earthquake, 1974		\$25–30m	
Hurricane Hugo, 1989	\$36m		• 2 deaths • Over 2000 homes damaged
Hurricane Luis, 1995		\$350 – 500m	• 2 deaths; 167 injuries • 90% of housing units sustained damage
Hurricane George, 1998	\$200m		• deaths; 2 injuries • 3,338 persons homeless
Hurricanes Jose & Lenny, 1999	\$247.43m		

Sources: CDERA 1995; Maskrey, 1997 ; USAID/OFDA,1998

⁴ The findings for each sector in each of the target countries are based on the calculation of the scores described in the methodology above. These scores were derived based on weights and ratings applied to the CDM assessment and prioritisation matrix. The findings are discussed and represented in percentages, indicating the relative performance of the sector in each domain based on the maximum score attainable for those domains, expressed as 100%. The key success and/or militating factors are presented to support the percentage rating for each sphere/domain.

Antigua and Barbuda is close to the most active sector of the eastern margin of the Caribbean Plate. There have been a number of significant shaking events in recorded history, the latest being in 1974. Earthquakes close to Antigua and Barbuda could produce tsunami waves, as could a collapse from the eastern flank of Soufrière Hills Volcano on neighbouring Montserrat (CCRIF, 2013a).

The Caribbean Catastrophe Risk Insurance Facility (CCRIF) Risk Profile for Antigua and Barbuda (2013a) estimates that the average annual loss is US\$23.3 million for tropical cyclones (excluding rain) and US\$ 40.8 million for seismic risk for the country (Table 7). The average annualised loss (AAL) represents the loss that is expected each year when averaged over a long period of time.

The report noted that Antigua and Barbuda's economy is dominated by tourism, and that sector is particularly vulnerable to hurricane impacts. Although a building code has been adopted in the country and engineered structures are built to resist earthquake shaking and high winds, the general level of building resilience to both earthquakes and hurricane hazards is modest which, given the high hazard levels, leads to high risk.

Table 7: Summary of Tropical Cyclone (TC) and Earthquake (EQ) Losses in Antigua and Barbuda

Return Period (yrs)	TC National Loss (USD)	EQ National Loss (USD)
20	86,360,300	275
50	348,322,600	2,232,460
100	717,261,000	18,585,500
250	1,155,480,000	168,013,000
500	1,704,490,000	402,142,698
750	1,784,250,000	680,206,000
1,000	1,784,250,000	977,272,000
AAL	23,321,896	40,870,153

Source: Caribbean Catastrophe Risk Insurance Facility, 2013a

4.1.1 Progress with Mainstreaming DRR at the National Level

Disaster management in Antigua and Barbuda is supported by several legislative and policy instruments. The Disaster Management Act (2002) is currently the central legislation guiding disaster management at the national level. This legislation is also supported by the Emergency Powers (Hurricane, Earthquake, Fire or Flood) Act, 1957. The Act is, however, being repealed and a new National Disaster Bill has been prepared and is currently before parliament.

Antigua and Barbuda also has in place a policy framework for DRR. The National Comprehensive Disaster Management Policy and Strategy for Antigua and Barbuda (2015–2017) is the primary policy guiding the integration of disaster management into programmes and plans of action both at the national and local/community levels. Two policy outputs which have been developed out of the National CDM Policy have been the National Disaster Management Plan and the Natural Hazard Mitigation Policy and Plan for Antigua and Barbuda. To further support the policy framework, a Climate Change Policy, developed by the Department of Environment in 2016, was approved by Parliament, and a DRR Strategic Framework was prepared. The country work programme of the DRR Strategic framework is in line with CDEMA's CDM Strategy. Legislative changes are being awaited in order to finalise the framework.

The National Office of Disaster Services (NODS), the main coordinating agency for Disaster Management in Antigua and Barbuda, has primary responsibility for developing and implementing the National CDM Policy and Strategy for the island. NODS is also one of four sub-regional focal points for CDEMA and has responsibility for coordination of disaster management activities in Anguilla, the Virgin Islands, Montserrat and St Kitts/Nevis. NODS has implemented various programmes to advance DRR and has identified and trained DRR focal points. The focal points are aligned to the international priority areas and include health, agriculture, tourism and education.

In terms of raising awareness on DRR, NODS has undertaken measures to target specific sectors and ministries, but acknowledges that more work is required, particularly as it relates to sustaining communication and keeping stakeholders informed about global and regional programmes. The agency has had more success at the community level, as there is a volunteer guideline in existence through which communities can participate. Trainings, meetings, etc., are also part of the process. There are, however, areas where improvements can be made, particularly as it relates to access to information. Additionally, there are challenges with the disaster budget and the methods and mediums used to disseminate pertinent data. NODS seeks to keep its stakeholders informed about new and emerging trends in DRR globally and within the region based on its participating in these forums on DRR.

The extent to which gender considerations are integrated into CDM mainstreaming is unclear. The country does not have a National Policy on Gender Equality, which mandates the mainstreaming of gender in all policies and programmes. Neither does it have a developed system of Gender Focal Points (GFPs) who are embedded in ministries, departments and agencies. As noted in the 2014 Country Gender Assessment (CDB, 2014), 'Many policies and programmatic interventions are developed without any reference to gender equality, and are referred to as 'gender blind' or 'gender neutral' as opposed to being understood as void of critical gender considerations' (p. 1). Consequently, key policies in some of the special interest sectors covered in this report, such as the National Economic and Social Transformation Plan, and the Sustainable Tourism Development Plan, 2013, make no mention of gender-responsive strategies, although tourism is a major employer of women ⁵ (CGA, 2014). The CGA (2014) found that a key obstacle to the

⁵ The CGA notes that women are the majority of workers in the hotels and restaurants sub-sector in tourism

integration of gender in sector programmes ‘lies in the absence of quantitative and qualitative sex-disaggregated data, gender analysis, and gathering and synthesizing of gender-related data across sectors’.

4.1.2 Barriers to Mainstreaming – Antigua and Barbuda

- **Lack of Awareness** – Participants at the workshop identified a lack of capacity, and a lack of awareness of DRR among national and sectoral stakeholders as an obstacle to mainstreaming. They noted that enough is not being done to sensitise sectoral representatives about their role in CDM. Many saw disaster management as a ‘national issue’ being addressed by NODS. There is little awareness that there is a role for the sectors.
- **Inadequate collaboration** – This was also identified as a barrier. The interaction and collaboration with national and sectoral agencies and among sectors need improvement.

4.1.3 Assessment of CDM Integration and Prioritisation of Key Sectors: Antigua and Barbuda

1. Health Sector

Based on the indicators in the prioritisation matrix and the ratings applied, the health sector is performing overall at 65% of the maximum expected. The **citizen** domain is where the health sector has made the most progress with mainstreaming, performing at 75% of the maximum score (Table 8). The focus of this domain is clear and there are well publicised processes/mechanisms for communities and their representatives to provide input into risk-sensitive development planning at both the local and national levels. This is being achieved through the Disaster District Committees where health inspectors and doctors are represented at these meetings. Moreover, DRR sector issues are also influenced by civil society service groups. In the case of the Zika virus, for example, guidelines provided by the Red Cross are used by civil society groups to assist with Zika prevention and the rat treatment strategy.

Table 8: Antigua and Barbuda: Health Sector CDM Mainstreaming Score

Health Sector	Maximum Score	Score	Percentage of Maximum (%)
Policy	36	18	50
Organisation	24	16	66.6
Implementation	32	22	68.75
Citizen	28	21	75
Advocacy and Knowledge	32	22	68.75
Total	152	99	65.1

Other key factors responsible for this progress include accountable, political structures in the form of clear lines of reporting from the local to national level.⁶

The policy domain is the area where most work is required, achieving only half of the expected maximum score. It is important to note that a sector-specific DRM policy exists as well as a Draft Climate Change Policy, 2016 (GOAB, 2016a). The sector also has a 2016 Strategic Plan to guide its operations including outputs and outcomes for DRR (GOAB, 2016b). However, the Climate Change Policy is in draft and has not yet been approved and the National DRM Plan is in need of Cabinet review. The national DRM framework outlines roles and responsibilities for political representatives, however, the roles and responsibilities for specific departments need to be clearly articulated. Improvements have been made in the institutional structure with the appointment of a Disaster Health Coordinator and focal points based on the World Health Organization's (WHO) International Health Regulations' (IHR) recommendations as well as assistance from the **Pan American Health Organization (PAHO)** with the employment of a planner for two years to provide technical support.

The budget allocation to the health sector is also inadequate to cover the financial requirements of effective CDM mainstreaming, leaving the sector to implement strategies such as reallocating budget lines.

The **organisation** domain is performing at 66% of the maximum score. Progress with mainstreaming in this domain includes the DRR focal points that have been named for the Ministry. This mechanism is functioning with clearly defined roles and responsibilities as defined in job descriptions. Additionally, the health sector is part of an established mechanism for inter-agency and/or multi-disciplinary collaboration on DRR/CCA with initiatives such as the National Safe Hospitals Policy which is in draft and is to be submitted to the minister and then to cabinet for approval (Figure 5).

With respect to **implementation**, the sector has been instrumental in the implementation of chemical and waste management pilot projects. Investment projects in the sector are screened by the Development Control Authority with the assistance of the Public Health Inspectorate, where necessary. Monitoring and evaluation is done annually for the National Solid Waste Health Sector Reports and other reports e.g. Pharmacy Council.

The sector has not assessed how well the systems of enforcement are functioning but there is a clear regulatory framework in place that can support DRR and these include those by the Development Control Authority, Physical Planning and more specifically to the health sector, through the Public Health Inspectorate.

⁶ The District Disaster Coordinator reports to the National Coordinator and the Health Disaster Coordinator reports to the Permanent Secretary in the ministry.

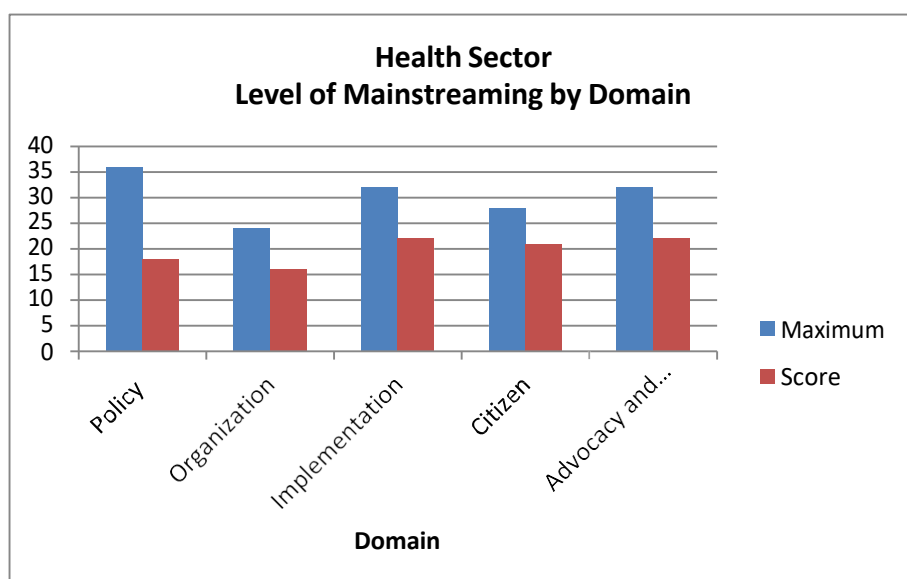


Figure 5: Health Sector Level of Mainstreaming by Domain – Antigua and Barbuda

With 68.75%, the advocacy and knowledge domain is at the same level of mainstreaming as the implementation domain. Factors contributing to the advocacy and knowledge score include the presence of methods and analytical tools for integrating DRR such as Environmental Impact Assessments (EIA) and risk analyses. Research by the laboratory, public health inspector, nurse, and epidemiologist is ongoing and the data is used to guide personnel on actions to be taken, for example, with ZIKA and CHIK-V. The Caribbean Field Epidemiology and Laboratory Training Programme started two small surveys which still need to be further assessed for action in communities. Mount St John Medical Centre Government Hospital has looked at drought and climate change to decrease carbon footprints and dependence on fossil fuel.

PAHO has supported capacity development training/workshops on Safe Hospital Guidelines with special focus on Physical Structure and Operational Policies for key personnel in the health sector.

The dissemination of information to facilitate public awareness raising is carried out seasonally. Television is the primary medium through which the Central Board of Health disseminates information about vector control. Some gaps in the advocacy sphere include the need for advocacy plans and strategies, and general public awareness programmes.

Challenges and Gaps with Mainstreaming in the Health Sector

The research identified a number of gaps and challenges:

- a. Resource constraints in the sector relate specifically to financial and human resources. The inadequacy of the budgetary allocations hinders the implementation of DRR programmes/initiatives;
- b. Some critical issues that need to be addressed include the enactment of sector legislation which is before parliament, and the implementation, monitoring and evaluation, and enforcement of existing regulations;
- c. There is an absence of documented DRR plans from every department in MOH and there is also a need to designate focal points in each of these departments;

- d. Health sector staff are not appropriately trained to carry out some functions of the national DRM programme;
- e. There needs to be documented DRR communication strategies for sensitisation and to build awareness.

Overcoming the Challenges – Strengths of the Sector

The health sector has the following capabilities that will augur well for its efforts at mainstreaming:

- a. The MOH has documented DRM plans in place;
- b. Capabilities were evident in the areas of vector control and sanitation services, vaccination, port inspection and mass casualty management services;
- c. Monitoring and evaluation, and enforcement of programmes are ongoing – Central Board of Health and Red Cross, telecommunication companies, NGOs such as Rotary/Lions Club;
- d. The sector has regional and international resources and linkages that it can readily leverage, for example, CDEMA, PAHO/WHO, UNISDR and the University of the West Indies (UWI). The sector can call on these institutions to provide training, technical support and funding;
- e. Partnerships in Information dissemination exist with the Ministry of Education and the media.

Opportunities for Strengthening CDM in the Sector

The sector could boost existing CDM mainstreaming initiatives/strategies by:

- a. Using of sector assessments to reflect, refocus, plan and implement strategies relating to DRR mainstreaming;
- b. Targeting deficient areas more effectively, for example, training in DRM with and implementing strategy for sustained capacity building of health staff;
- c. Strengthening partnerships with existing UWI, CDEMA, PAHO and UNISDR.

Health Sector – Final Score

The level of mainstreaming for the health sector is 0.64 out of 1 (Table 9). This means that the health sector has achieved a moderate level of mainstreaming. Therefore, identifiable actions have taken place, and progress is steady, but continuous actions are needed to enhance DRR mainstreaming.

Table 9: Final Health Sector Score – Antigua and Barbuda

Category Weight – Level of Mainstreaming			Health	
6				
Domain	Weight	Maximum Score	Score	Weighted Score
Policy	5	36	18	2.50
Organisation	3	24	16	2.00
Implementation	3	32	22	2.06
Citizen	3	28	21	2.25
Advocacy & Knowledge	5	32	22	3.44

Total	19	152	99	12.25
Score				0.64

2. Water Sector

Overall, the water sector is achieving less than 50% progress in its mainstreaming efforts based on the prioritisation matrix. The advocacy and knowledge sphere recorded the highest level of mainstreaming at 59.4%. The implementation domain is performing just at 50%, however, the citizen domain shows evidence of the least progress (Table 10 and Figure 6).

The high advocacy and awareness scores are linked to the contributions from the following areas:

- The presence of the GIS department with geospatial databases for both the water and environment agencies;
- Well targeted public awareness-raising campaign, primarily the “**Don’t Waste Water Public Education**”, which is an ongoing general campaign. Other targeted campaigns in the sector focus on school children. The environment agency through the Environment and Communication Unit develops materials for communities and schools from the primary to the tertiary level;
- The use of methods/tools for integration of DRR, such as EIAs conducted for major projects in the sector and cost-benefit analyses, though this is not consistent for all projects;
- Advocacy in the sector is being done to influence policy, people, and systems to bring about the required changes for mainstreaming DRR in the sector. However, the process is not formalised and has no established advocacy strategy for the sector.

Table 10: Water Sector Score – Antigua and Barbuda

Water Sector	Maximum Score	Score	Percentage of Maximum (%)
Policy	36	15	41.6%
Organisation	24	9	37.5%
Implementation	32	18	50%
Citizen	28	9	32%
Advocacy and Knowledge	32	19	59.4%
Total	152	70	46%

The main areas within the **advocacy and awareness** domain that need improvement are research plans for capacity development, and professional training courses so as to enhance the DRR knowledge of the technical experts within the sector.

The **implementation** domain is performing second with overall mainstreaming in the sector. Actions within the implementation sphere that contribute to mainstreaming include piloting of projects such as the 2009 Rainwater Harvesting Project; the documentation of experiences and best practices, such as the demonstration sites at Glanvilles; and the monitoring and evaluation frameworks relating to water testing and stream management.

The level to which risk assessments are conducted prior to the construction of infrastructure and public investments projects needs improvement. These are carried out for major projects, but not consistently. Similarly, there are no established guidelines for the screening of projects during reconstruction, however, evaluations are conducted taking into consideration historical information.

The **policy** domain has achieved approximately 41.6% level of mainstreaming and is in need of significant improvement. While there is a plethora of sector acts that can be used to support efforts at mainstreaming, some need updating and others require finalisation from the draft stage. These include the Utilities Act (1973), Water Regulations (draft) and Physical Planning (2003) with regulations still in draft, for example, the pollution control regulations. Additionally, improvements in the institutional framework are required to better enable the sector to integrate DRM issues. The budget allocation to the water sector is also inadequate with only a budget line for hurricane planning.

At 37.5%, the **organisation** domain is also in need of significant improvement. The reasons for this low level of mainstreaming include the absence of capacity development plans for the training of key personnel/focal points in MDAs about DRR/CCA integration in project and programme cycles as well as ad hoc collaboration and partnerships on DRR/CCA. Notwithstanding, some areas of this sphere have progressed such as the naming of focal points for the sector, the presence of an annual strategic plan and the establishment of a technical advisory committee specifically for the environment department. In regard to the internal procedures, there are guidelines and checklists routinised in project and programme cycles.

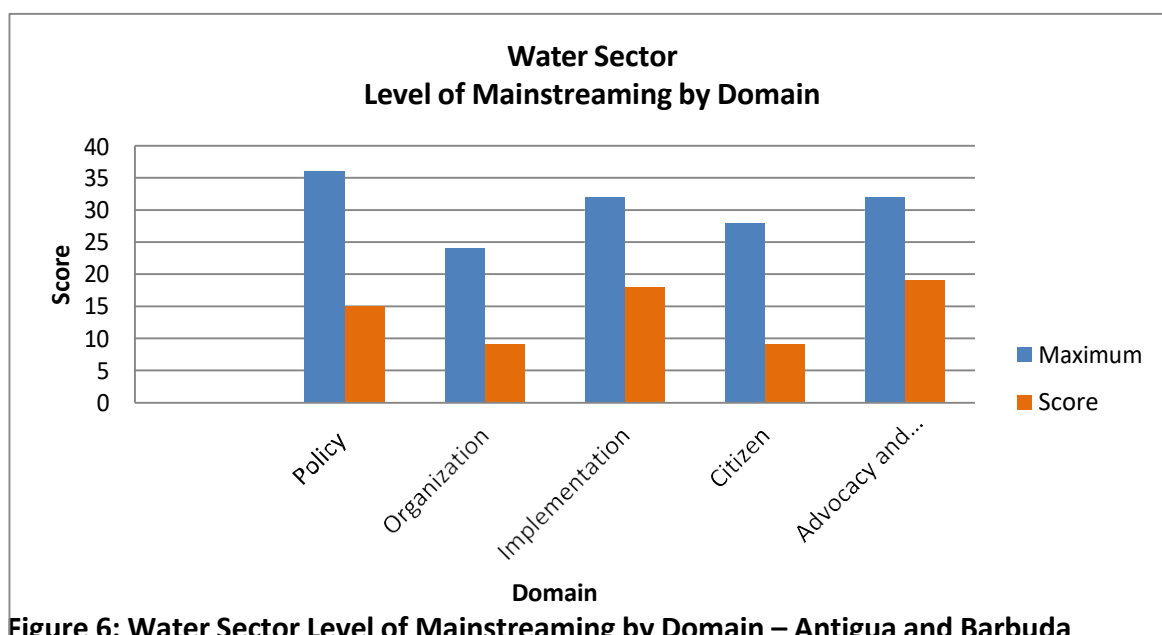


Figure 6: Water Sector Level of Mainstreaming by Domain – Antigua and Barbuda

Of all the domains, the **citizen** domain achieved the lowest level of mainstreaming in the sector with 32%. Progress is being achieved in this domain through areas such as civil society's representation in the sector primarily with farmers' groups and also through the incorporation of community views on projects at the technical advisory committee level. There are plans to establish a watershed and wetlands committee. Despite civil society's involvement, monitoring of DRR progress in the sector has remained limited.

There is a structure for reporting on DRR between the local and national level for the environment department, but a similar structure does not exist for water. In addition, a local government structure does not exist to respond to local demands and implement DRR activities.

Challenges and Gaps with Mainstreaming

The water sector has challenges that have affected its level of CDM mainstreaming. These include:

- Lack of full political commitment which is seen as partially responsible for the limited enforcement of sector regulations;
- Financial and human resource constraints which have affected well needed infrastructure upgrades and the systematic gathering of data;
- Inflexible and rigid funding criteria from international donors.

Overcoming the Challenges – Strengths of the Sector

Despite the challenges, the sector has some key strengths that can be harnessed in support of mainstreaming DRM in the sector. These include:

- A comprehensive national database of all environmental resources and utilities, spatially mapped and within a GIS database;
- The final draft of the Drought Risk Management Plan which will allow the sector

- to implement targeted measures relating to drought management;
- The existence of an environmental hazards and risk guide;
- The technical expertise in the area of water quality testing and analysis;
- Strong partnership with other government agencies through which data sharing can be leveraged;
- International technical assistance from Climate Technology Centre and Network (CTCN), the Caribbean Water Operators' Partnerships (CARI-WOPS), and the Caribbean Water and Sewerage Association (CAWASA);
- Non-resource worker reduction and certification.

Opportunities for Strengthening CDM in the Sector

Opportunities for strengthening CDM in the sector include:

- Internships/partnerships with academic institutions such as the UWI to undertake sector-specific studies to influence and/or inform improved decision-making;
- Knowledge exchange with experts within the region as well as international partners in good practices, innovative and new techniques within the sector.

Water Sector – Final Score

The level of mainstreaming for the water sector is 0.46 out of 1 (**Table 11**). This means that the water sector has achieved a low level of mainstreaming and is in need of significant action to realise greater integration of DRR in the activities of the sector.

Table 11: Final Water Sector Score – Antigua and Barbuda

Level of Mainstreaming			Water		
Domain	Weight	Maximum Score	Score	Rating Score	Weighted
Policy	5	36	18	15	2.08
Organisation	3	24	16	9	1.13
Implementation	3	32	22	18	1.69
Citizen	3	28	21	9	0.96
Advocacy & Knowledge	5	32	22	19	2.97
Total	19	152	99	70	8.83
Score					0.46

3. Agriculture Sector

Overall, the agriculture sector is achieving approximately 39.4% progress in its mainstreaming efforts based on the prioritisation matrix. It should be noted, however, that a major limitation in the scores for this sector is that there are a number of ratings that are missing for the agriculture sector especially in the policy domain (Table 12 and Figure 7).

Table 12: Antigua and Barbuda: CDM Mainstreaming Scores for Agriculture Sector

Agriculture Sector	Maximum Score	Score	Percentage of Maximum (%)
Policy	36	9	25%
Organisation	24	16	66.6%
Implementation	32	13	40.6%
Citizen	28	5	17.8%
Advocacy and Knowledge	32	17	53.1%
Total	152	60	39.4%

The **policy** domain requires significant strengthening. The pieces of legislation that govern the sector are old and need updating, namely, the Agricultural Development Corporation Act (1979) and the Agricultural Small Holdings Act (1939). Additionally, improvements in the institutional framework are required to better enable the sector to integrate DRM issues. Of note is that the sector has a Country Work Programme – Strategic Plan 2016–2019, which was prepared in collaboration with the Food and Agriculture Organization (FAO). The strategic plan considers natural resources and risk reduction, however, expected outcomes and outputs have not been articulated in the plan.

The **organisation** domain is the area in which the agriculture sector has made the most progress with mainstreaming, performing at 66% of the maximum score. The key factors responsible for this progress include the presence of a multi-year strategic plan, the training of key personnel in areas such as damage assessment and pesticide usage, and membership in the Technical Advisory Committee, a multi-disciplinary group which discusses DRR/CCA issues.

Insofar as internal procedures are concerned, there are no established guidelines, frameworks and SOPs routinised to assess/or integrate DRR in projects and programme cycles. However, this is generally done as a requirement of project implementation as with FAO's Climate Change Livestock Project.

Actions within the **implementation** sphere that contribute to mainstreaming include the piloting of projects such as the Early Warning System Pilot Project and the Climate Change Livestock and Crops Project in five districts where baseline for production will be monitored; compliance and enforcement is done through the Agricultural Small Holdings Act (1939) and actions are administered as described in the Act should breaches be committed.

The level to which risk assessments are done prior to public investment projects need improvement. These are done for major projects on the basis of the requirements of donor agencies. Similarly, monitoring and evaluation of projects is done primarily based on project requirements of the donor agency.

The **advocacy and knowledge** sphere scored the second highest level of mainstreaming at 53.1%. Key indicators that contributed to this score include monthly television and radio programmes that promote activities about and within the sector; and the promotion of

good practices through the use of the European System Related to Good Agricultural Practice Euro-Gap (EUREPGAP) materials, though, it is recognised that materials should be adapted to suit local conditions and realities. The integration of a decision support system for decision-making (GIS) is to commence soon with the mapping of farm plots throughout the country. Despite progress in the areas above, there are several areas within the knowledge and advocacy sphere that need improvement. Methods and tools for the integration of DRR, such as guidelines, risk-analyses, and cost-benefit analysis methodologies need to be developed or adapted for the sector as these are mainly utilised on a project basis. Capacity development plans that ensure that the technical experts within the sector benefit from DRR courses are also lacking. While sector experts receive DRR-related training from time to time, this is not structured.

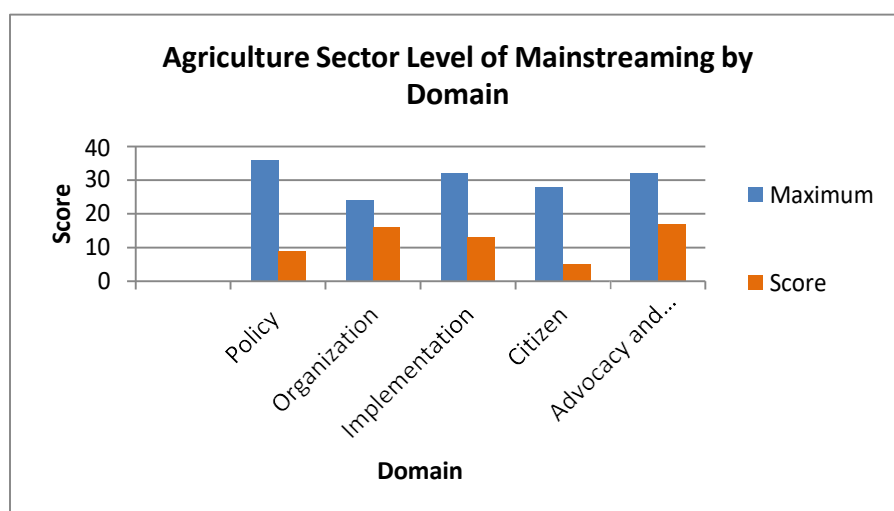


Figure 7: Agriculture Sector Level of Mainstreaming by Domain

All the areas of the **citizen** sphere have been given a low rating and this means that activities in this domain are incipient or ad hoc and unsustained.

An example is the absence of civil society's representation in the sector, with grievances investigated or considered only as part of project requirements. With respect to vulnerable groups in the community, where projects are in place, participation of these groups are mandated, but there is generally no deliberate effort regarding their inclusion in DRR discussions. In terms of accountable, political structures for clear lines of reporting and the capacity to respond to local demands and implement recommended initiatives, the related DRR activities are non-existent due to the absence of a local government structure in the country.

Challenges and Gaps with Mainstreaming

The agriculture sector has had some challenges that have affected its level of CDM mainstreaming. These include:

- Insufficient budgetary allocation for implementation of sector-related DRR initiatives;
- The absence of routine maintenance of equipment;
- The lack of cohesiveness among fisherfolk and farmers to develop functional associations that can champion mainstreaming of DRR in the sector;
- Limited capacity to implement DRM. Additional training in areas such as DDR/CCA and data collection techniques/methods is needed.

Overcoming the Challenges – Strengths of the Sector

Despite the challenges, the sector has some key strengths that can be harnessed in support of mainstreaming DRM in the sector. These include:

- An established educational programme which provides training for farmers, fisherfolk and the wider public;
- The capacity to provide services in the areas of ploughing and land preparation, boat hauling and consultancy about farming technology;
- Some capacity exists with trained personnel in specific departments;
- The presence of a database that assists with decision-making.

Opportunities for Strengthening CDM in the Sector

Opportunities for strengthening CDM in the sector include:

- The capacity of the University of Antigua and Barbuda to develop training programmes that could target specific needs of the sector;
- The numerous opportunities for profitable investments in DRR/CCA initiatives, given the government's policy directives.

Agriculture Sector – Final Score

The level of mainstreaming for the agriculture sector is 0.39 out of 1 (**Table 13**). This means that the agriculture sector has achieved a low level of mainstreaming and is in need of significant action to realise deep integration of DRR in the activities of the sector.

Table 13: Final Agriculture Sector Score – Antigua and Barbuda

Level of Mainstreaming			Agriculture	
Domain	Weight	Maximum Score	Rating Score	Weighted
Policy	5	36	9	1.25
Organisation	3	24	16	2.00
Implementation	3	32	13	1.22
Citizen	3	28	5	0.54
Advocacy & Knowledge	5	32	17	2.66
Total	19	152	60	7.50
Score				0.39

The agriculture sector overall has achieved a 72% level of mainstreaming. The domains that have achieved the highest level of DRR integration are **organisation** and **implementation**, while the **citizen** domain has achieved the lowest level of mainstreaming. The **implementation** domain scored the highest overall in the sector at 83.3%. A number of indicators contributed to this high score. For example DRR focal points have been named by the Ministry with clearly defined roles and responsibilities (Table 14 and Figure 8).

4. Finance Sector

The finance sector overall has achieved a 72% level of mainstreaming. The domains that have achieved the highest level of DRR integration are **organisation** and **implementation** while the **citizen** domain has achieved the lowest level of mainstreaming. The **implementation** domain scored the highest overall in the sector at 83.3% (Table 14). A number of indicators contributed to this high score. For example, DRR focal points have been named by the ministry with clearly defined roles and responsibilities (Table 14 and Figure 8).

Additionally, the finance sector is adequately and actively represented at the National Office of Disaster Services' (NODS) coordination mechanism, including coordination and strategic plans at the national level. The strategic Country Work Programme developed by NODS incorporates targets for finance. Systematic internal procedures, including guidelines and checklists, exist and are routinised to assess/or integrate DRR projects and programme cycles. The main area of improvement in this domain is capacity development through targeted training in DRR/CCA of focal points and other key personnel in the sector.

Actions within the **implementation** sphere that contribute to mainstreaming include a sustained monitoring and evaluation framework with consistent communication with

project partners and other stakeholders and the production of annual reports. Major stakeholders such as the Development Control Authority and NODS are consulted on major projects. However, in terms of risk-proofing public investments projects, EIAs are conducted, but based on project requirements. With respect to compliance and enforcement, the

Table 14: Finance Sector Score – Antigua and Barbuda

Finance Sector	Maximum Score	Score	Percentage of Maximum (%)
Policy	36	15	41.6%
Organisation	24	20	83.3%
Implementation	32	19	59.4%
Citizen	28	4	14.3%
Advocacy and Knowledge	32	11	34.4%
Total	152	69	45.4%

Financial Administration Act (2006) includes penalties for non-compliance, but these are not enforced. A fairly new system has been implemented to assess the level of enforcement, and the overall efficiency and management of the public finance sector.

At 41.6%, the **policy** domain is in need of significant improvement. The Finance Administration Act (2006), the main piece of legislation that governs the sector, does not include DRR considerations; the DRM Plan for the finance sector is in draft and the Medium-Term Development Strategy (MTDS) with sector strategies is also in draft. However, there are areas of progress in this domain and these include the improvement in the institutional framework through the establishment of the National Harmonization Committee in 2016. Operations of the committee are facilitated through a budgetary allocation of 3% to NODS which has been increased incrementally over the last two years.

The **advocacy and knowledge, and citizen** spheres scored the lowest with 34.4% and 14.3% progress with mainstreaming in the sector, respectively. The factors/areas contributing to the advocacy and knowledge scores are:

- The decision-support systems and databases such as Asycuda, GIS and FreeBalance available for use in the sector;
- The utilisation of the Public Sector Investment Programme (PSIP) customs guidelines and data analysis tools, however, there is need for the adoption of additional tools in the sector;
- The raising awareness in the sector, but this activity is upon the request of external donors to assess resources.

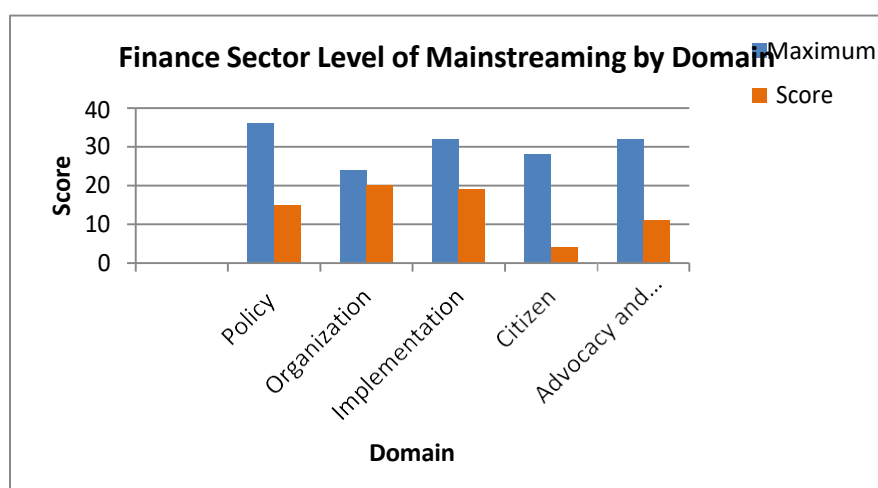


Figure 8: Finance Sector Level of Mainstreaming by Domain – Antigua and Barbuda

Capacity development plans that ensure the technical experts within the sector benefit from DRR courses are also lacking and while sector experts receive DRR-related training from time to time, these training opportunities are not structured. Similarly, structured processes for research of the application of DRR techniques applicable to the sector are not in place.

In regard to citizen participation, it was noted that NGOs and CBOs are not represented in the sector. The sector lacks an advocacy plan and strategy, however, pressure from constituencies is through social media, talk shows and ad hoc advocacy groups in the country.

Challenges and Gaps with Mainstreaming

The sector has identified a few gaps/challenges that affect its progress with CDM mainstreaming:

- Limited knowledge and capacities about DRR and budget integration (inclusive of sectoral plans);
- Existing policies and procedures are not mandated to incorporate DRR considerations in decision-making processes;
- Lack of targeted training opportunities at all levels as well as dissemination of information and knowledge sharing among experts in the sector;
- Lack of technical capacity to undertake, for example, risk analyses, cost-benefit analyses, and economic impact assessments;
- Limited inter regional and international cooperation on the exchange of DRR/CCA good practices;
- Limited funding for projects and programmes;
- Lack of maintenance of infrastructure and management facilities;
- The need to strengthen the statistical units at the centralised and decentralised levels;
- The development of cost-effective integrated programmes across ministries and sectors so as to ensure sustainable programmes/initiatives.

Overcoming the Challenges – Strengths of the Sector

Despite the challenges, the sector has some key strengths that can be harnessed in support of mainstreaming DRM in the sector. These include:

- The existence of a FreeBalance accounting system which has the flexibility to include new components;
- Allowances made by MTDS to have DRR integrated in sectors services;
- The National Office for Disaster Services' (NODS) capacity to provide assistance in DRR training;
- The ability to leverage technical support from government agencies such as NODS as well as regional and international multilaterals such as the Caribbean Development Bank, the Inter-American Development Bank (IDB) and the World Bank.

Opportunities for Strengthening CDM in the Sector

Opportunities for strengthening CDM in the sector include:

- a. Access to grant funding from multilateral entities such as IDB and World Bank;
- b. Alliances with bilateral and multilateral agencies;
- c. Wide-ranging knowledge of ministries' and sectors' needs/issues.

Finance Sector – Final Score

The level of mainstreaming for the finance sector is 0.45 out of 1. This means that the finance sector has achieved a low level of mainstreaming and is in need of significant action to realise deep integration of DRR in the activities of the sector (Table 15).

Table 15: Final Finance Sector Score – Antigua and Barbuda

Category Weight – Level of Mainstreaming			Finance	
Domain	Weight	Maximum Score	Rating Score	Weighted
Policy	5	36	15	2.08
Organisation	3	24	20	2.50
Implementation	3	32	19	1.78
Citizen	3	28	4	0.43
Advocacy & Knowledge	5	32	11	1.72
Total	19	152	69	8.51
Score				0.45

Table 16: Summary of CDM Mainstreaming Scores – Antigua and Barbuda

Sectors	Scores	Level of Mainstreaming
Health	0.64	Moderate
Water	0.46	Low
Agriculture	0.39	Low
Finance	0.45	Low

The assessment of CDM mainstreaming in the sectors in Antigua and Barbuda indicates that mainstreaming is low for all sectors except Health, which has a moderate level of mainstreaming.

4.1.4 Selection of Sectors to be Prioritised

Table 17 below summarises the scores for the four sectors assessed using the prioritisation matrix. Using the scores for the level of mainstreaming only, the two sectors with the lowest scores are the agriculture and finance sectors. Therefore, **the two sectors that should be prioritised for further intervention under this consultancy are the agriculture sector and**

finance sector. The tourism sector was not included in the prioritisation process because the prioritisation matrix was not completed for the sector.

Table 17: Summary Sector Scores – Antigua and Barbuda

Category Weight – Level of Mainstreaming			Health		Water		Finance		Agriculture	
Domain	Weight	Maximum Score	Score	Weighted Score	Rating Score	Weighted	Rating Score	Weighted	Rating Score	Weighted
Policy	5	36	18	2.50	15	2.08	15	2.08	9	1.25
Organisation	3	24	16	2.00	9	1.13	20	2.50	16	2.00
Implementation	3	32	22	2.06	18	1.69	19	1.78	13	1.22
Citizen	3	28	21	2.25	9	0.96	4	0.43	5	0.54
Advocacy & Knowledge	5	32	22	3.44	19	2.97	11	1.72	17	2.66
Total	19	152	99	12.25	70	8.83	69	8.51	60	7.50
Score				0.64		0.46		0.45		0.39

4.2 Dominica

The Commonwealth of Dominica is of volcanic origin with rugged terrain and is the most mountainous of the Eastern Caribbean islands. According to the 2011 Census, Dominica has a population of approximately 71,000 persons. Similar to most Caribbean islands, the highest population densities are found within the coastal zone of the island. Dominica's economy has been traditionally based on agriculture. However, after the 1999 ruling of the World Trade Organisation (WTO) that eradicated preferential treatment of tariffs for Windward Island bananas, also Dominica's main export, the economy was devastated. Today, however, agriculture remains one of the primary employment and economic sectors in Dominica. The main employment sectors in Dominica are the public sector, agriculture, and tourism. Tourism, as a priority sector for Dominica, contributes approximately 16% of Dominica's Gross Domestic Product, while agriculture accounts for a similar share (World Bank, 2014).⁷

Dominica is recognised as one of the 15 most vulnerable countries (external economic shocks and natural disasters) in the Commonwealth according to the Commonwealth Vulnerability Index (CDB, 2003). The country is exposed to multiple natural hazards such as seismic, volcanic activities and with much of its slopes having angles greater than 25%, the island is prone to landslides. It should be noted, however, that the greatest threat to the island are hurricanes and tropical storms. These events often result in serious negative impacts on the island's small economy. Tropical Storm Erika in 2015 resulted in over EC\$600m in damages and losses to road and bridge infrastructure, and resulted in total damages and losses equalling approximately 90% of Dominica's total GDP. The economic losses from disasters have historically been very high in Dominica. Economic data revealed that Hurricane David in 1979 resulted in losses totalling EC\$82m, the loss of 95% of the buildings on the island, the loss of the nation's entire banana crop, 75% of the country's forest and a

⁷ <http://data.worldbank.org/indicator/NV.AGR.TOTL.ZS>

decline in GDP by 17% (ODM, 2014). Similar damages and losses were also experienced with Hurricane Lenny in 1999 (Table 18).

Table 18: Summary of Disasters and Associated Economic Losses in Dominica

Event / Year	Economic Impact		Affecte
	\$EC (m)	\$US (m)	
Hurricane David, 1979	82.1	23.8	• 43 deaths • 60% hom
3 Storms : Iris, Luis and Marilyn, 1995	39.1		• 0 deaths
Hurricane Lenny, 1999	87.9 m	21.5	• 1 death
Heavy rains, 30+ landslides, April 2013			• 2 deaths
TS Erika, 2015	1.3 b	483	• 11 deaths; 22 missing • 574 persons homeless

Source: ECLAC, 2015; ODM, 2014

The Caribbean Catastrophe Risk Insurance Facility Risk Profile for Dominica (2013b) estimates that the average annual loss for the country is US\$9.6 million for tropical cyclones (excluding rain) and US\$2.1 million for seismic risk. The average annualised loss (AAL) represents the loss that is expected each year when averaged over a long period of time (Table 19).

Table 19: Summary of Tropical Cyclone (TC) and Earthquake (EQ) Losses for Dominica

Return Period (yrs)	TC National Loss (USD)	EQ National Loss (USD)
20	28,415,200	8,927
50	114,614,000	5,145,210
100	369,481,000	26,714,600
250	543,900,000	97,769,300
500	824,231,000	219,988,000
750	1,027,580,000	282,932,000
1,000	1,027,580,000	410,827,000
AAL	9,642,898	2,134,246

Source: Caribbean Catastrophe Risk Insurance Facility, 2013b

According to the Risk Profile Report (2013b), the island lies towards to southern edge of the main Atlantic hurricane belt, with moderate wind hazard risk exposure. The mountainous terrain causes localised severe wind speed-up. Earthquake hazard is moderate and volcano

hazards are relatively high, with active hot springs, pre-historic eruptions and numerous volcano-tectonic earthquake swarms during the historical period.

4.2.1 Progress with Mainstreaming DRR at the National Level

Disaster management in Dominica is supported by several legislation and policy instruments at the national and sectoral levels. The Emergency Powers (Disaster) Act, 1987, is the main legislation guiding disaster management at the national level. There is, however, a Draft Disaster Preparedness and Emergency Management Act, but due to funding and other capacity issues, it has not yet been accepted into law. The main policies and plans guiding CDM in Dominica are the Disaster Management Plan (2009) and the National Emergency Management Policy. There is also a Climate Change Adaptation (CCA) Strategy which has been developed and approved, but there is no policy yet in place.

The National Emergency Planning Organisation (NEPO) and the Office of Disaster Management (ODM) are the two organisations responsible for executing the programmes outlined in the disaster management plans and policies both at the national and community levels (Figure 9). NEPO is the central government agency having responsibility for the planning and coordination of disaster measures at the national level. The organisation has primary responsibility for the maintenance of the National Emergency Operations Centre and is supported in its functions by the ODM. The ODM was created in response to the hurricane disasters. While the ODM does not function independently of the NEPO, the organisation has assumed primary responsibility for the management, coordination and response to disasters and the implementation of the disaster management plan.

There is also a clear management structure for disaster management in Dominica. The structure for management includes the following:

- The Executive Committee
- The Executive Advisory Council
- Task Force – 13 members including sector representatives
- District Emergency Management Committees and
- Community Emergency Management Committees.

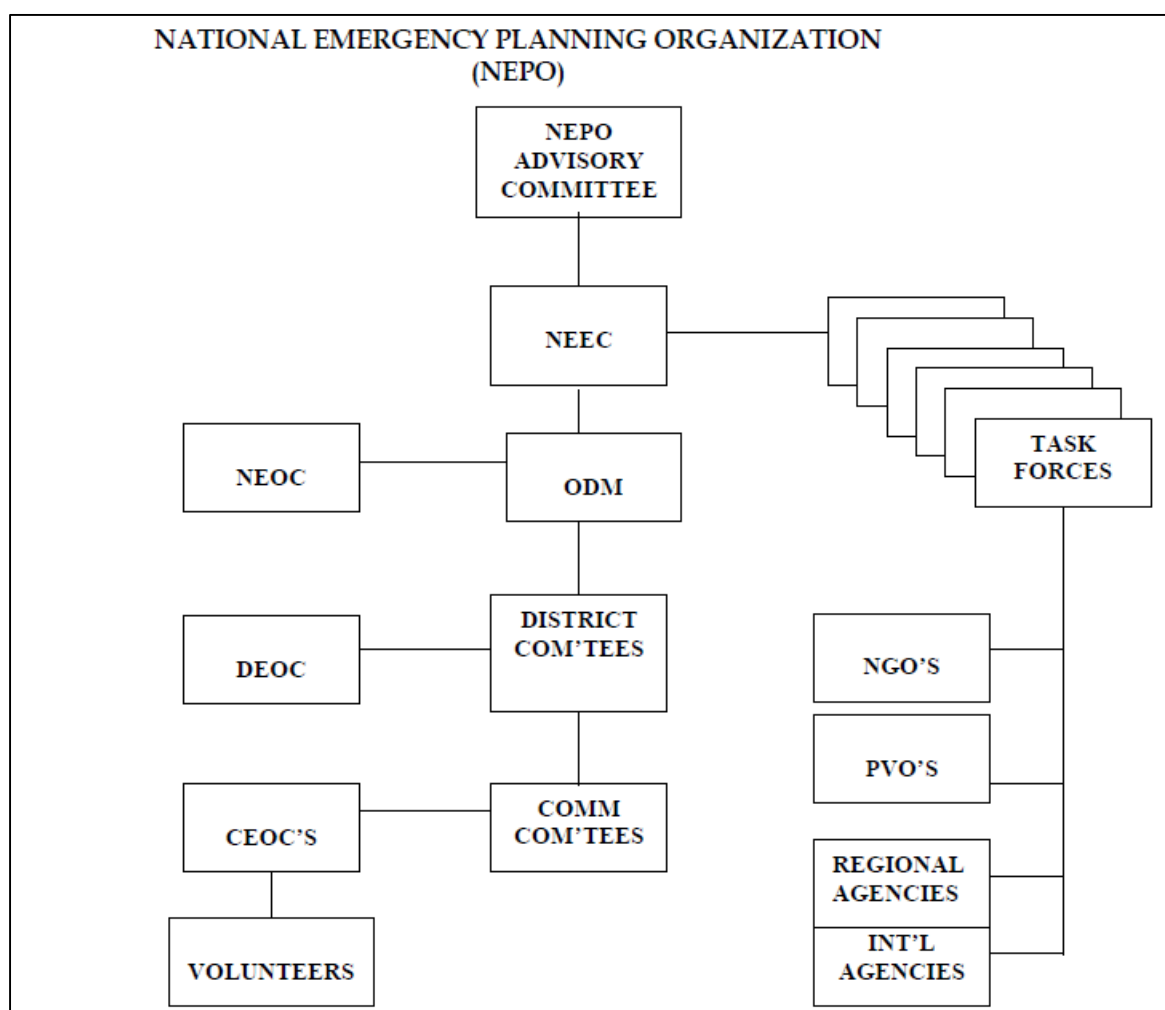


Figure 9: National Emergency Planning Organisation, Dominica

Source: NEPO, Dominica, 2001

The integration of gender considerations in these legislations and programmes is minimal. Although the country has a National Policy on Gender Equality, which takes a mainstreaming approach to the development of policies and programmes, the actual implementation of this approach has been challenging. The CGA for Dominica (CDB, 2014) highlights the fact that despite the mandate of the policy, there are no clear systems to integrate gender equality into ministries' sector programmes, including collecting sex-disaggregated data, undertaking a gender analysis of the key issues in the sector, and developing gender-responsive indicators and targets.

4.2.2 Barriers to Mainstreaming – Dominica

The critical barriers to mainstreaming were identified by workshop participants are as follows:

- **Absence of ownership and “buy-in” for DRR at the sector level** – For the most part, persons rely on the national disaster organisation to address disaster management at all levels including at the sector level. It was also felt that the “buy-in” for DRR from decision-makers was low;
- **Inadequate data to make the case for mainstreaming** – Participants highlighted the absence of risk data and further, the inadequate use of risk data where it is available, to make the case for mainstreaming in the sectors. It was felt that this could be a key driver for getting the required support to integrate CDM in the work of the sectors.

4.2.3 Assessment of CDM Integration and Prioritisation of Key Sectors: Dominica

1. Water Sector

Based on the indicators in the prioritisation matrix and the ratings applied, the water sector overall is performing at 35.5% of the maximum expected. It should be noted, however, that a major limitation in the scores for this sector is that there are a number of missing ratings (Table 20 and Figure 10).

The **organisation** sphere is where the water sector has made the most progress with mainstreaming, performing at 50% of the maximum score. The factors that are responsible for the **organisation** score include the DRR focal points that have been named for the ministry. Additionally, there has also been collaboration and partnerships with the Forestry Division, NEPO and the Physical Planning Division on DRR/CCA-related issues. Key personnel participate in an average of two training sessions per year, for example, Climate Change and Damage Assessment, however, greater integration of information from training into daily operations is needed. While DRR considerations are factored into the design of new water systems, systematic internal procedures have not been established and routinised to assess and/or integrate DRR into project and programme cycles. Finally, it could not be ascertained if a multi-year strategic plan for the sector exists.

The **citizen and advocacy and knowledge** spheres are performing at 42.8% and 34.4% of the maximum score, respectively. The areas contributing to the citizen score include a clearly defined structure for reporting, fully staffed district offices where resources are shared across each district, and evidence of community involvement in DRR activities in the sector, especially in the provision of post-disaster assistance to restore water supply. It is, however, not clear whether or not NGOs and CBOs are represented in the sector.

Table 20: Water Sector Score – Dominica

Water Sector	Maximum	Score	Percentage of Maximum
Policy	36	10	27.7
Organisation	24	12	50
Implementation	32	9	28.125
Citizen	28	12	42.8
Advocacy and Knowledge	32	11	34.375
Total	152	54	35.5

Areas of progress in advocacy for mainstreaming DRR are the application of methods and analytical tools such as cost-benefit analyses which are generally done for all projects. EIAs are also conducted, but the use of this tool is dependent on the scope and location of the proposed projects. Structured processes of research are done by the Physical Planning Division with the mapping of hazard zones such as flood-prone areas. Despite progress in the areas above, there are several areas within the **knowledge and advocacy** sphere that need improvement. Capacity development plans that ensure the technical experts within the sector benefit from DRR courses are lacking. While sector experts receive DRR-related training from time to time, these training sessions are not structured. There is limited use of an existing geospatial database called GeoNode which has data on natural hazards and other types of datasets, and there are plans to invest in ArcGIS, but to date, only training has been conducted with key personnel.

Despite having legislation such as the Water and Sewerage Act and the Forest Act that support DRM, the policy domain is where the most strengthening is required, having achieved only 27.7% of the maximum score. Areas requiring improvement include the need to finalise the draft National Integrated Water Resources Policy and improved budgetary allocation to the sector.

All areas of the **implementation** sphere have been given a low rating, indicating that activities in this domain are incipient or ad hoc. For example, the level to which risk assessments are done prior to the construction of infrastructure and public investments projects need improvement. However, high-level discussions have been held since the passage of Tropical Storm Erika in 2015, about mitigation actions and steps to be taken to reduce future impacts on infrastructure.

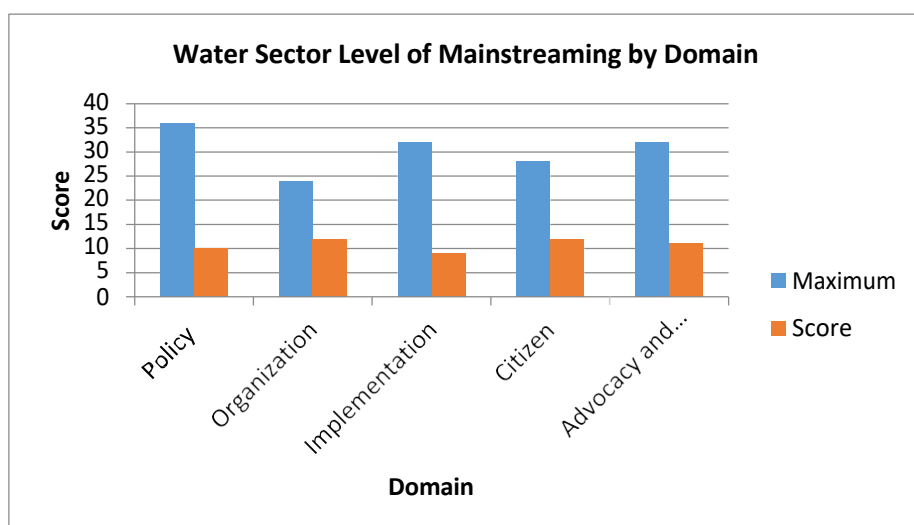


Figure 10: Water Sector Level of Mainstreaming by Domain – Dominica

With respect to compliance and enforcement, the water catchment rules specify the fines to be levelled for breaches, however they are not enforced. Similarly, monitoring and evaluation activities are conducted, but these take place primarily at the project level with no overall monitoring at the sectoral level to determine DRR progress or the level of mainstreaming. Pilot projects in the sector have been not been implemented to demonstrate the benefits of mainstreaming.

Water Sector – Final Score

The level of mainstreaming for the water sector is 0.35 out of 1 (Table 21). This means that the water sector has achieved a low level of mainstreaming and is in need of significant action to realise full integration of DRR in the activities of the sector.

Table 21: Final Water Sector Score – Dominica

Category Weight – Level of Mainstreaming			6		Water	
Domain	Weight	Maximum Score	Rating Score		Weighted	
Policy	5	36	10		1.39	
Organisation	3	24	12		1.50	
Implementation	3	32	9		0.84	
Citizen	3	28	12		1.29	
Advocacy & Knowledge	5	32	11		1.72	
Total	19	152	54		6.74	
Score						0.35

2. Agriculture Sector

The agriculture sector overall has achieved a 79.6% level of mainstreaming. The domains that have achieved the highest level of DRR integration are **advocacy and knowledge and citizen**, while the **policy** domain has achieved the lowest level of mainstreaming (Table 22 and Figure 11).

Table 22: Agriculture Sector Score – Dominica

Agriculture	Maximum Score	Score	Percentage of Maximum
Policy	36	26	72.2
Organisation	24	19	79.2
Implementation	32	25	78.1
Citizen	28	23	82.1
Advocacy and Knowledge	32	28	87.5
	152	121	79.6

The factors that are mainly responsible for the advocacy and knowledge sphere's score include the presence of methods and analytical tools, such as Environmental Impact Assessments (EIA) for integrating DRR, cost-benefit analysis and risk analysis. The utilisation of

methodologies such as the ECLAC methodology to estimate the socio-economic impact of events and the guide developed under the Inter-American Institute for Cooperation on Agriculture (IICA) project for the agriculture sector to integrate climate change into policy plans, programmes and projects (PPPPs) also supports advocacy around these issues. These are augmented by decision support systems such as GIS for the production of hazard and vulnerability risk maps under the IICA project. Greater integration of the use of GIS is, however, required in the sector.

In terms of structured research processes, an economic impact analysis is conducted after every event. Landslide susceptibility and volcanic eruption assessments are done in collaboration with physical planning, and products such as rainfall maps and land suitability maps are produced. The Meteorological Office also provides support in the form of products for farmers' use.

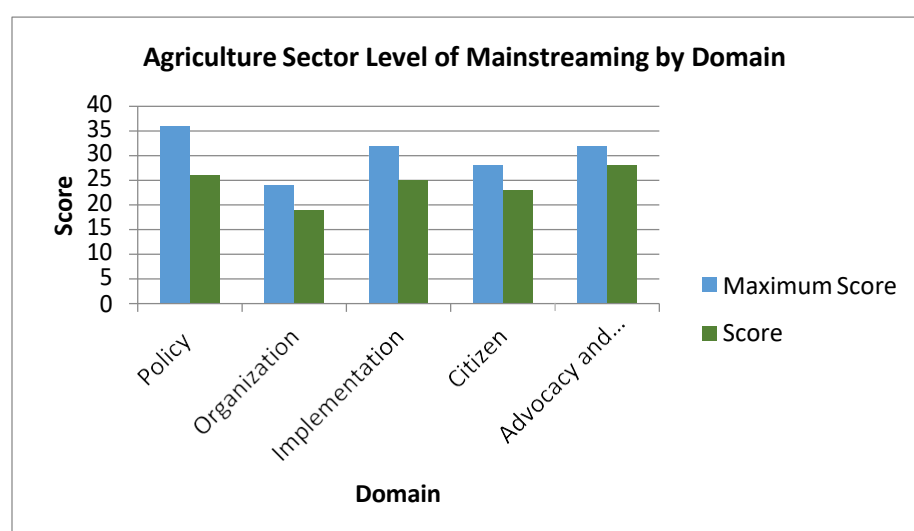
Promotion of good practices is done through radio and television programmes and DRR is captured in the public awareness plan for the sector. As it relates to training for professional development of key experts in the sector, there is need to pool and share resources for training and the transfer of knowledge.

In regard to citizen participation, NGOs and CBOs are represented in the sector. The development of the DRM Plan was informed by multiple stakeholders including NGOs/CBOs, farmer groups, women and youth. Despite being informal, the *Farmers' Voice* radio programme provides a medium through which issues affecting farmers are raised, and to which the ministry responds through meetings. In addition, several groups, such as NE Women's Group, National Fairtrade [Banana], the Pineapple Association, the Passion Fruit Association, Organic Farmers, and the Cocoa Association, apply pressure through demonstrations and advocacy on political representatives.

The reporting lines from local to national government are clearly articulated in a DRM plan and Cabinet Sub-Committees ensure checks and balances. Furthermore, the Government provides budgets to Village Councils for projects, especially local-interest projects. Other sources of funding include the Global Environment Fund (GEF) project funding implemented through the Village Council.

Community participation in DRR activities is done through the 4-H Youth in Agriculture Programme, women's groups and a collaboration of vulnerable groups through Office of Disaster Management (ODM).

Figure 11: Agriculture Sector Level of Mainstreaming by Domain – Dominica



The **organisation** domain is also performing well at 79.2%. DRR focal points have been named, and they have been assigned clear responsibilities. Focal points and other key experts in the sector have undergone extensive training in

DRR/CCA integration in project and programme cycles. Improvements in systematic internal procedures to assess and/or integrate DRR in project and programme cycles are required. IICA is providing support in this regard in the sector.

Actions within the **implementation** sphere that contribute to mainstreaming include risk-proofing investments through site selection screening – soils, slope orientation, potential for flooding, and landslide hazard. There are also projects, for example, the Agricultural Investment and Development Bank (AID) provides funds for investment with conditions. Similarly, guidelines for reconstruction have become more stringent since the passage of Tropical Storm Erika in 2015. Compliance and enforcement need strengthening with greater collaboration between physical planning and environmental health.

Pilot projects are implemented to demonstrate the benefits of mainstreaming through the use of demonstration sites. Furthermore, experiences are documented and mechanisms are in place to disseminate as best practices in the form of booklets, presentations, manuals and videos.

Monitoring and evaluation are done via semi-annual reviews that are conducted via the Growth and Social Protection Strategy (GSPS) and budgets. Monitoring and evaluation frameworks and plans have been developed for the sector in support of the strategic plan.

Policy domain has achieved approximately 72.2% level of mainstreaming. Two main pieces of legislation within the sector provide the regulatory framework that promotes DRM integration in the sector. These are the Plant Protection and Quarantine Act (1986) and Pesticides Control Act of 1984. There are also sector policies, such as the Agriculture Policy, and the draft Farm Policy, the resilience component of which is being strengthened with assistance from IICA.

A Disaster Risk Management Plan is in place with clearly defined roles for the Ministry of Agriculture and there is also a 3-year strategic plan ending in 2018. IICA has commenced review of the framework and mechanisms to support DRR integration in plans, SOPs and manuals.

The government's budgetary allocation for DRR activities in the agriculture sector is limited; however, this is supplemented by project funding from donors such as the Organisation of Eastern Caribbean States (OECS) and FAO.

Agriculture – Final Score

The level of mainstreaming for the agriculture sector is 0.8 out of a possible 1 (**Table 23**). This means that the agriculture sector has achieved a high level of mainstreaming whereby identifiable actions have taken place, and progress is steady, but the sector needs continuous actions to enhance DRR mainstreaming.

Table 23: Final Agriculture Sector Score – Dominica

Category Weight – Level of Mainstreaming			6		Agriculture	
Domain	Weight	Maximum Score	Rating Score		Weighted	
Policy	5	36	26		3.61	
Organisation	3	24	19		2.38	
Implementation	3	32	25		2.34	
Citizen	3	28	23		2.46	
Advocacy & Knowledge	5	32	28		4.38	
Total	19	152	121		15.13	
Score						0.80

3. Tourism Sector

Overall, the tourism sector is achieving approximately 48.7% progress in its mainstreaming efforts based on the prioritisation matrix. The domain that has achieved the highest level of DRR integration is **implementation** while the **citizen** domain has achieved the lowest level of mainstreaming. The prioritisation matrix for the tourism sector was populated by one key tourism sector representative who has been named the focal point for the sector (Table 24 and Figure 12).

Table 24: Tourism Sector Score – Dominica

Tourism	Maximum Score	Score	Percentage of Maximum
Policy	36	16	44.4
Organisation	24	11	45.8
Implementation	32	20	62.5
Citizen	28	11	39.3
Advocacy and Knowledge	32	16	50
	152	74	48.7

The **implementation** domain is the area in which the tourism sector has made the most progress with mainstreaming, performing at about 63% of the maximum score. A number of indicators contributes to this score, such as the hazard and risk assessments that are

undertaken in the sector. For example, during the project appraisal process for Environment and Social Impact Assessments (ESIA), risk assessments are carried out. The Planning and Environment Ministry leads this initiative especially with private investors to ensure that the ESIA's are conducted with the support of the Dominica Conservation Authority. Pilot projects are implemented to demonstrate the benefits of mainstreaming such as coastal protection pilot project along Mero-West Coast done in collaboration with the Mero Enhancement Committee.

With respect to compliance and enforcement, checklists for hotel standards, for example, fire safety, are enforced. The regulatory framework for planning is clear, however, occasionally the political environment interferes with the process.

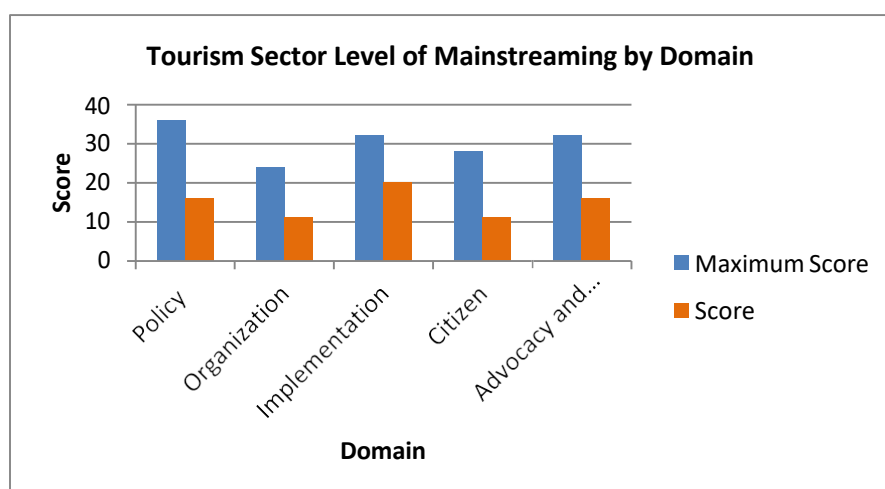


Figure 12: Tourism Sector Level of Mainstreaming by Domain – Dominica

Despite progress, there are several areas within the **implementation** domain that require improvement. Monitoring and evaluation of DRR is non-existent and there is an absence of specific evaluation tools, such as indicators and benchmarks, in the strategic plan for the sector and the documentation of good DRR practices in the sector.

The **advocacy and knowledge** domain is just at 50% in the mainstreaming process. Key indicators that contributed to this score include the presence of decision-support systems in the form of a GIS system, albeit not widely used, and the development of an App called D with information on Dominica. Structured research of DRR/CCA is conducted, but primarily during the project decision stage. Moreover, general public awareness is conducted, but not necessarily well targeted for different audiences. Some gaps in advocacy include the lack of capacity development plans that ensure the technical experts within the sector benefit from DRR courses. While sector experts receive DRR-related training from time to time, this is not structured. Methods and tools for the integration of DRR, such as guidelines, risk-analysis and cost-benefit analysis methodologies, need to be developed or adapted for the sector, and there is need for an advocacy plan and strategy for the sector.

The **organisation** domain is performing over 45.8% of the maximum score. Progress with mainstreaming in this domain includes ongoing representation of the Permanent Secretary at NEPO, and the presence of a strategic business plan, even though the plan does not articulate expected outcomes and outputs for the sector. In addition, capacity development of key personnel involved in DRR implementation in diverse methodologies – Damage Assessment and Needs Analysis (DANA), Damage and Loss Assessment (DaLA), and International Development Association (IDA) – has been undertaken so as to improve technical capabilities in the sector. Despite trainings, however, DRR and CCA integration in project or programme cycles is still absent.

DRR considerations are generally considered in project designs, however, guidelines and checklists are absent for the sector. It could not be ascertained conclusively whether a DRR focal point for the sector has been appointed.

Policy domain has achieved approximately 44.4% level of mainstreaming and is in need of significant improvement. The main piece of legislation which governs the sector, the Tourism Act 2005, does not recognise the role of DRR in the sector. Notwithstanding, the Tourism Policy, 2010 recognises the role of DRR in the sector, but focuses primarily on disaster preparedness.

A Tourism Disaster Risk Management Plan is in place with clearly defined roles and responsibilities for the Ministry, as well as a strategic plan, 2015–2018 to guide its operations. However, DRR outcomes and outputs are absent. A challenge for the sector is the high attrition rate, which has affected sustainability and continuity of the Ministry. While there have been discussions about improvements in the institutional framework, nothing tangible has been documented. Of note, however, is that DRM activities have been added to the Caribbean Tourism Organization (CTO) and the Technical Officer Portfolio. In addition, there is no specific budgetary allocation for DRR initiatives in

the sector.

Of all the domains, the **citizen** domain achieved the lowest level of mainstreaming in the sector with 39.3%. Among the areas where progress is being achieved is civil society's representation through the National Conservation Association and Dominica National Council for Women, where the latter occasionally raises issues relating to tourist harassment. There is, however, a sustainability issue with both groups. Pressure from constituents is levelled primarily through talk shows on the radio. While there is a structure for reporting on DRR between the local and national levels, informality overshadows the formal process.

Tourism – Final Score

The level of mainstreaming for the tourism sector is 0.48 out of 1 (Table 25). This means that the tourism sector has achieved a low level of mainstreaming and is in need of significant action to realise deep integration of DRR in the activities of the sector.

Table 25: Final Tourism Sector Score – Dominica

Category Weight – Level of Mainstreaming			6		Tourism	
Domain	Weight	Maximum Score	Rating Score		Weighted	
Policy	5	36	16		2.22	
Organisation	3	24	11		1.38	
Implementation	3	32	20		1.88	
Citizen	3	28	11		1.18	
Advocacy & Knowledge	5	32	16		2.50	
Total	19	152	74		9.15	
Score						0.48

4. Finance Sector

Overall, the finance sector is achieving 42.7% progress in its mainstreaming efforts based on the prioritisation matrix. The domains that have achieved the highest level of DRR integration are **advocacy and knowledge**, and **policy** with 50% and 47.2% progress, respectively. The **citizen** domain has achieved the lowest level of mainstreaming (Table 26 and Figure 13).

Table 26: Finance Sector Score – Dominica

Finance Sector	Maximum Score	Score	Percentage of Maximum
Policy	36	17	47.2
Organisation	24	10	41.7
Implementation	32	12	37.5
Citizen	28	10	35.7
Advocacy and Knowledge	32	16	50
	152	65	42.7%

The areas contributing to the high **advocacy and awareness** scores are:

- Presence of decision-support systems and databases

such as SMART Stram; Automated System for Customs Data (ASYCUDA); and GeoNode for the sector;

- Utilisation of methods

and tools for integration of DRR such as cost-benefit analysis and financial forecasting, however, widespread use of analytical tools in the sector is weak;

- A structured process of research is currently being implemented to identify vulnerable groups and assess gender-related issues.

The main areas for improvement within the advocacy and awareness domain are the need for capacity development plans and professional training courses to enhance the DRR knowledge of technical experts within the sector. Also needed are the documentation and promotion of good practices in the sector, as well as the development of public education and awareness strategy.

The **policy** domain has achieved approximately 47.2% level of mainstreaming. The Financial Administration Act, 1994 is the main piece of legislation within the sector that provides the regulatory framework promoting DRM integration. Regulations to support the Procurement and Contract Administration Act, 2012 are required for the sector to be better able to mainstream DRR.

A National Disaster Risk Management plan is in place with clearly defined roles for the finance sector, but not replicated in the Finance Plan. A multi-year strategic plan is being drafted for the sector. While the national DRM framework outlines roles and responsibilities for political representatives, no improvements have been made in the institutional structure of the finance sector to enable it to adequately integrate DRR and climate change issues. Of note is that after the passage of Hurricane Erika in 2005, a comprehensive assessment was conducted. DRR mainstreaming was one of the recommendations, however, to date no actions have been implemented.

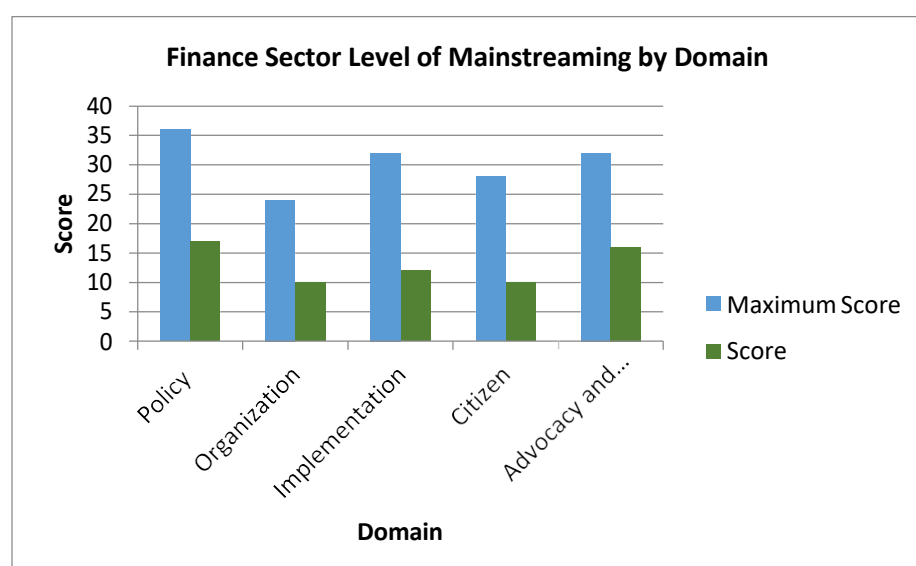


Figure 13: Finance Sector Level of Mainstreaming by Domain

Most areas of the **organisation** sphere have received a low rating. This means that activities in this domain are incipient or ad hoc. For example, capacity development plans that ensure the technical experts within the sector benefit from DRR courses are lacking. While sector

experts receive training from time to time, it is related primarily to information technology and not DRR. Notwithstanding, some areas of this sphere, such as the naming of the DRR focal point for the sector and members of the National Planning Emergency Organization, have progressed. There are several sub-committees of which the finance sector is an active member.

The **implementation** domain has achieved approximately 37.5% level of mainstreaming and is in need of significant improvement. Actions within this domain that are contributing to mainstreaming include a system of checks and balances that the Ministry has instituted to screen projects during reconstruction. However, the extent to which risk assessments are done prior to the construction of infrastructure and public investments projects need improvement, as this is currently not being done by the sector. Compliance and enforcement are ongoing efforts of the sector, with financial sanctions levied as required. Similarly monitoring and evaluation is ongoing with the production of end-of-year reports such as Strategic Plans, mid-term reviews, and annual socio-economic reports.

Where **citizen** participation is concerned, NGOs and CBOs are not represented in the sector. With respect to the presence of accountable political structures, a local governance system is in place and there are clear lines of communication from local to national levels. Local government has limited capacity to respond to local demands and implement DRR activities because the allocated budget is small, for example, EC\$2000 for DRR activities. In addition, leadership and technical skills are weak at this level.

Challenges and Gaps with Mainstreaming

The sector has identified a few gaps/challenges that affect its progress with CDM mainstreaming:

- Disaster risk management is generally not taken seriously due to the absence of a DRR champion which affects commitment of DRR-related programmes/projects;
- Absence of appropriately trained human resources in DRR concepts and its application to the sector;
- Onerous requirements of development partners such as the Caribbean Development Bank (CDB, the IDB and the World Bank, among others;
- Lack of full political commitment to implement advice/recommendations by experts in the sector;
- Other critical issues that need to be addressed within the sector include the absence of research, statistical analyses and risk studies, as well as the lack of the application of tools and techniques to support DRR programmes and projects;
- Limited financial resources to fully support DRM-related programmes and projects.

Overcoming the Challenges – Strengths of the Sector

Despite the challenges, the sector has some key strengths that can be harnessed in support of mainstreaming DRM in the sector. These include:

- A well established reporting mechanism within the sector as well as strong oversight from other government agencies;
- Strong relationships with international development partners;

- Existence of laws, such as the Procurement and Contract Administration Act, and the Audit Act, which provide legislative backing in the sector;
- Existence of monitoring and evaluation through the establishment of an internal audit team;
- Several departments within the sector with specialised skills for networking and support;
- Existence of databases and software systems which facilitate data collection and streamline revenue collection (e.g., ASCCUDA, Smart Stream, the Standard Integrated Government Tax Administration System (SIGTAS)).

Opportunities for Strengthening CDM in the Sector

Despite the challenges, the sector has some key strengths that can be harnessed in support of mainstreaming DRM in the sector and these include:

- The vulnerability of Dominica which presents an opportunity to seek and capitalise on funds available for the implementation of DRR programmes and projects;
- Collaborating with the UWI and other research institutions with the sector in conducting research and developing guidelines and other support materials for the finance sector;
- Training of key personnel in DRM as well as awareness building;
- Greater involvement of the private sector in the thrust for DRM in the sector.

Finance – Final Score

The level of mainstreaming for the finance sector is 0.44 out of 1 (Table 27). This means that the finance sector has achieved a low level of mainstreaming and is in need of significant action to realise deep integration of DRR in the activities of the sector.

Table 27: Final Finance Sector Score – Dominica

Level of Mainstreaming			Finance	
Domain	Weight	Maximum Score	Rating Score	Weighted
Policy	5	36	17	2.36
Organisation	3	24	10	1.25
Implementation	3	32	12	1.13
Citizen	3	28	10	1.07
Advocacy & Knowledge	5	32	16	2.50
Total	19	152	65	8.31
Score				0.44

Table 28: Summary of CDM Mainstreaming Scores – Dominica

Sectors	Scores	Level of Mainstreaming
Water	0.35	Low
Agriculture	0.8	High
Tourism	0.48	Low

Finance	0.44	Low
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Based on the CDM integration assessment for Dominica, all sectors, except the agriculture sector, have a low level of mainstreaming.

4.2.4 Selection of Sectors to be Prioritised

Table 29 summarises the scores for the four sectors assessed using the prioritisation matrix. Using the scores for the level of mainstreaming, the two sectors with the lowest scores are the water and finance sectors. Therefore, **the two sectors that should be prioritised for further intervention under this consultancy are the water sector and the finance sector.** The health sector was not included in the prioritisation process because the prioritisation matrix was not completed for the sector (Table 29).

Table 29: Summary Sector Scores – Dominica

Level of Mainstreaming			Water		Tourism		Finance		Agriculture	
Domain	Weight	Maximum Score	Rating Score	Weighted	Rating Score	Weighted	Rating Score	Weighted	Rating Score	Weighted
Policy	5	36	10	1.39	16	2.22	17	2.36	26	3.61
Organisation	3	24	12	1.50	11	1.38	10	1.25	19	2.38
Implementation	3	32	9	0.84	20	1.88	12	1.13	25	2.34
Citizen	3	28	12	1.29	11	1.18	10	1.07	23	2.46
Advocacy & Knowledge	5	32	11	1.72	16	2.50	16	2.50	28	4.38
Total	19	152	54	6.74	74	9.15	65	8.31	121	15.13
Score				0.35		0.48		0.44		0.80

4.3 St Lucia

In 2010, St Lucia, according to the Census Report had a population of 165,595 persons. However, 2012 mid-year population shows an approximate population size of 172,000. Tourism is the main driver of St Lucia's economy. The services sector accounts for close to 80% of Gross Domestic Product (GDP). Other important contributors to the economy are agriculture (banana production) and small inputs from small-scale manufacturing.

St Lucia is susceptible to geological hazards, such as earthquakes and volcanic activity as well as hydro-meteorological hazards, such as tropical cyclones, thunderstorms, coastal storm surges and floods. St Lucia shares its hazard profile with Dominica. Both are located along the eastern margin of the Caribbean plate, which makes them vulnerable to earthquakes. "Within the past 200 years, shaking intensities (MMI) of VII or VIII have been documented 6 times, most recently in 1953 during a magnitude 7 earthquake 15 miles west of Castries. Damage during these events is undocumented except for the 1839 event which caused significant damage and the 1953 event, which caused minor damage."⁸

St Lucia is made up entirely of volcanic rocks and like other islands of the Lesser Antilles, the island was formed as a result of a series of submarine volcanoes occurring millions of years ago. The Soufrière Volcanic Centre is the most likely location for future eruptions in St Lucia. This area is being monitored because of the frequency of shallow earthquakes and has been deemed potentially active. The possibility of future eruptions remains a current threat.

Natural disasters have resulted in socio-economic instabilities in the island state. For example, in 2007, Hurricane Dean resulted in the loss of 80–90% of St Lucia's banana crops, effectively crippling one of its major export sectors. Similarly, in the December floods of 2013, the country suffered damage totalling approximately US\$100 million, the equivalent to 8.3% of the island's GDP. Major damage to transport and agriculture infrastructure and water and sanitation services, resulted in declines in the key economic sectors of tourism and agriculture. Both sectors recorded a combined loss of approximately US\$15 million. Hurricane Tomas in 2010 resulted in damage and losses estimated at 43.4% of GDP. Damages and losses represented:

- Nine times the agricultural GDP;
- Three times the tourism GDP;
- 62% of exports of goods and services;
- 19% of gross domestic investment and 47% of public external debt (Table 30).

⁸ http://www.ccrif.org/sites/default/files/publications/St_Lucia_CountryRiskProfile_2013.pdf

Table 30: Summary of Disasters and Associated Economic Losses in St Lucia

Event / Year	Economic Impact		Affect
	\$EC (m)	\$US (m)	
Hurricane Allen, 1980		87.9m	a. 9 deaths; 80,000 population affected
TS Debby, 1994	230m		b. 4 deaths; 200 homes affected
Hurricane Dean, 2007		6m	
Hurricane Tomas, 2010	907.7 m	336.2m	c. 7 deaths; 5 missing; 5,952 population severely
Flood Rains, Dec 24–25, 2013	267.7m	99.88m	d. 6 deaths, 550 displaced; 19,984 population

Source: ECLAC, 2015; GOSL, 2014; IMF, 2004

According to the national risk profile for the country prepared by CCRIF (2013c) St Lucia is prone to moderate levels of diverse hazards including wave, wind, flooding, landslides, and volcanic activity. The CCRIF's Risk Profile for St Lucia (2013c) estimates that the AAL for tropical cyclones and earthquakes to be US\$5.0 million and US\$2.6 million, respectively. Table 31 represents losses at given return periods and represents the amount of loss expected at each return period for tropical cyclones (excluding rain) and earthquakes national risk profiles (in the form of loss exceedance curves) for St Lucia.

Table 31: Summary of Tropical Cyclone (TC) and Earthquake Losses for St Lucia

Return Period (yrs)	TC National Loss (USD)	EQ National Loss (USD)
20	86,360,300	275
50	348,322,600	2,232,460
100	717,261,000	18,585,500
250	1,155,480,000	168,013,000
500	1,704,490,000	402,142,698
750	1,784,250,000	680,206,000
1,000	1,784,250,000	977,272,000
AAL	23,321,896	40,870,153
SD of AAL	130,988,874	338,781,345

Source: Caribbean Catastrophe Risk Insurance Facility, 2013c

Recognising that disasters erode gains in development, the government of St Lucia has developed an integrated disaster risk management (DRM) programme. The programme aims to safeguard and promote national economic growth in the face of natural disasters, while prioritising long-term climate and disaster resilience investments as a strategic objective. However, large fiscal deficits and debt accumulations (sometimes the result of previous disasters) have required the government to rely on ad hoc budget reallocations and emergency assistance from donors, and to delay the replacement or repair of damaged capital stock. This limited ability to absorb fiscal shocks associated with natural hazard impacts is common throughout the Eastern Caribbean sub-region (GOSL, 2014a).

4.3.1 Progress with Mainstreaming DRR at the National Level

St Lucia is one of the CDEMA member countries which has had notable success in achieving several of the main objectives of the regional CDM strategy. Disaster management in St Lucia is supported by several significant disaster management legislation and policy instruments. National disaster management legislation include the Disaster Management Act 2006; the Emergency Powers (Disasters) Act #5/1995; the Disaster Preparedness and Response Act, 2000; and the Physical Planning and Development Act 29 (amended, 2005). A recent review of the Disaster Management Act, 2006 was undertaken, but the proposed amendments were not accepted.

Disaster management is also supported by an extensive list of national policies and programmes in the island. There are approximately six policies and plans which seek to mainstream CDM at the national and community levels in St Lucia. These include the Disaster Management Policy Framework (2004), the National Emergency Management Plan (NEMP), the National Hazard Mitigation Policy and Plan, and the National Climate Change Adaptation Policy and Strategy (2003). Recent policies and programmes developed to mainstream CDM include a draft Country Work Programme, a multi-year strategic plan to guide disaster management activities, a Disaster Risk Management Policy which was recently approved with the updating of the drought management component of the policy in 2016, and a Climate Change (CC) Policy in the Department of Sustainable Development was also granted approval. The CC policy guides the Ministry of Education, Innovation, Gender Relations and Sustainable Development.

The National Emergency Management Organisation (NEMO) is the primary agency in St Lucia with responsibility for disaster preparedness and disaster response. The agency's functions are outlined in the Disaster Management Act (2006). NEMO is supported in its duties by National Disaster Committees and Sub-committees. There are approximately thirty (30) committees which support NEMO in executing its duties. These committees serve as focal points of the National Disaster Office (NDO). The focal points have liaison officers with distinct roles and responsibilities related to disaster management.

In seeking to advance the disaster risk reduction agenda, NEMO has tried several innovative ways to disseminate information, for example, through Youth Forums, the hosting of DRR Fairs and an annual DRR camp targeting children and adults. The organisation is also in the process of developing a communication strategy, which takes into account community-based DRR. The strategy is being developed with technical input from countries such as Japan and Columbia. To further engage stakeholders at the local level, NEMO has in place District Disaster Committees, though key decisions are still made at the NDO level and then filtered down. One of the challenges related to citizen engagement is the sustainability of district level committees. There are well established structures in place for National and District Level committees, but improvements are required in ensuring they meet their goals. Funding and capacity issues have continued to hamper the work of these committees.

In spite of engagement challenges, NEMO is actively engaged in developing ways, such as using available data and information to highlight risks, and to ensure that disaster risk reduction is factored into the national and local decision-making process. For example, ECLAC undertook an assessment after Hurricane Tomas and in 2009, the Forestry Department developed a National Fire Plan which included a strategic management plan and logical framework to guide risk assessment monitoring. There are, however, several challenges related to risk assessment, one of which includes data access and completeness. There is data available to guide implementation of DRR strategies, but often it is not shared and is generally ad hoc. One proposal has been to establish a National Geographic Information Systems Committee to allow for improved data sharing. NEMO has also prepared a draft Monitoring and Evaluation Plan. However, the challenge which exists is that monitoring and evaluation is generally done at the project level, and is inconsistent with the requirements at the programme level. A project is underway, funded by AustriaAID, to develop a national monitoring and evaluation plan.

As with Antigua and Barbuda, and Dominica, St Lucia has no established mechanisms to ensure that gender is mainstreamed into all policies, including those related to CDM and DRR. With no gender equality policy to establish a framework for gender mainstreaming, efforts to integrate gender considerations in the work of the public sector are spearheaded by the Division of Gender Relations, which now falls under the Ministry of Education, Innovation, Gender Relations and Sustainable Development. The Division advocates for the integration of gender in national policies and programmes, and works with ministries and agencies to ensure that gender considerations are reflected in their respective sector plan, particularly as this is increasingly required by the island's International Donor Partners (IDPs).

4.3.2 Barriers to Mainstreaming CDM in St Lucia

During the workshop held in January, 2017, stakeholders identified factors that were preventing them from moving forward with mainstreaming efforts. The group identified the following as barriers to mainstreaming:

- **Limited intra- and inter-agency collaboration** – It was noted that co-ordination within, and among, agencies and partners was lacking. Whilst there are established means of coordination on DRR through the national platforms and mechanisms, in reality, there remains few effective mechanisms to allow for collaboration among sectors, which, for the most part, remain focused on their own DRR programmes. The mechanisms to support that collaboration need improvements. A similar issue also exists internally. This is even more pronounced where a ministry has several departments or agencies which do not collaborate on DRR. The challenges with coordination also manifest in overlapping responsibilities, limited data sharing among some agencies and sectors, and the absence of comprehensive frameworks for monitoring and evaluation;
- **Insufficient financial resources** – Insufficient resources being allocated to support DRR among the sectors has been identified as a factor that is preventing the advancement of DRR programmes, projects and policies;
- **Limited Awareness** – There is limited awareness about the plans and policies in place to manage disasters, the guidelines/strategies to integrate DRR at the sectoral level, the activities involved in mainstreaming and a general lack of awareness about risk. This is a major setback in the country's efforts to achieve resilience.

4.3.3 Assessment of CDM Integration and Prioritisation of Key Sectors: St Lucia

1. Health Sector

Based on the indicators in the prioritisation matrix and the ratings applied, the overall performance of the health sector in St Lucia is at just less than 60% of the maximum possible. Most progress has been made in the **organisation** domain, performing at about 75% of the maximum score. The key factors responsible for this progress include the DRR focal points that have been named for the ministry. This mechanism is functioning with clearly defined roles and responsibilities which are reviewed annually (Table 32 and Figure 14).

Table 32: Health Sector Score –St Lucia

Health Sector	Maximum Score	Score	Percentage of Maximum (%)
Policy	36	17	47.22
Organisation	24	18	75.00
Implementation	32	21	65.63
Citizen	28	16	57.14
Advocacy and Knowledge	32	18	56.25
Total	152	90	59.21

Additionally, the health sector is adequately and actively represented at the NEMO's coordination mechanism.

Systematic internal procedures, including guidelines, frameworks, and SOPs have been

established and routinised to integrate DRR in projects and programmes. These include guidelines/procedures such as the Safe Hospital Index, food handler's permit process, building permits, and licensing.

The area where work is mostly required is in the **policy domain**, which achieved less than half of the expected maximum score. The reasons for this low level of mainstreaming include the absence of a specific DRM or climate change plan for the health sector. While it could not be ascertained conclusively whether a plan exists, it could possibly be in draft and that it is not being used (if it exists); this poses a challenge for the sector. The sector also does not have a strategic plan to guide its operations, including outputs and outcomes for DRR. While the national DRM framework outlines the roles and responsibilities for political representatives, no tangible manifestation of political commitment to DRR has been seen via improvements in the institutional structure of the health sector to enable it to adequately integrate DRR and climate change issues. Health sector reform has been an agenda item, but no clear steps have been taken to approve or implement this. The budget allocation to the health sector is also inadequate, leaving the sector to implement strategies such as reallocating budget lines to support activities during disaster response, and seeking funding from partners such as PAHO and the private sector.

With respect to the **implementation sphere**, the sector has done an assessment of all its 36 facilities using PAHO's Hospital Safety Index. This assessment is an excellent baseline upon which future investments in the sector can be evaluated. Investment projects in the sector are screened by the National Reconstruction Development Unit and the Development Control Authority. The health sector generally does not attract a lot of funding, but where such projects are implemented, adequate monitoring and evaluation systems have been included.

The sector has not assessed how well the systems of enforcement are functioning, but there is a clear regulatory framework in place that can support DRR. These include regulations by the Development Control Authority, Planning and the Environment Health Act, which is more specifically health sector-related.. This Act is the principal legislation through which DRR matters for the health sector can be addressed. There are also capacity issues where port health is concerned. Enforcement systems for the health sector and enforcement under the Environmental Health Act generally function and are applied mainly to commercial buildings with limitation in enforcement provisions for residential facilities.

Not many pilot projects are being implemented, but the Smart Hospitals Initiative has been successfully implemented in the sector. Key challenges for the implementation domain include absence of baseline data, pooling and centralisation of information.

Citizen, and advocacy and knowledge domains are at similar levels with 56% – 57% progress in mainstreaming.

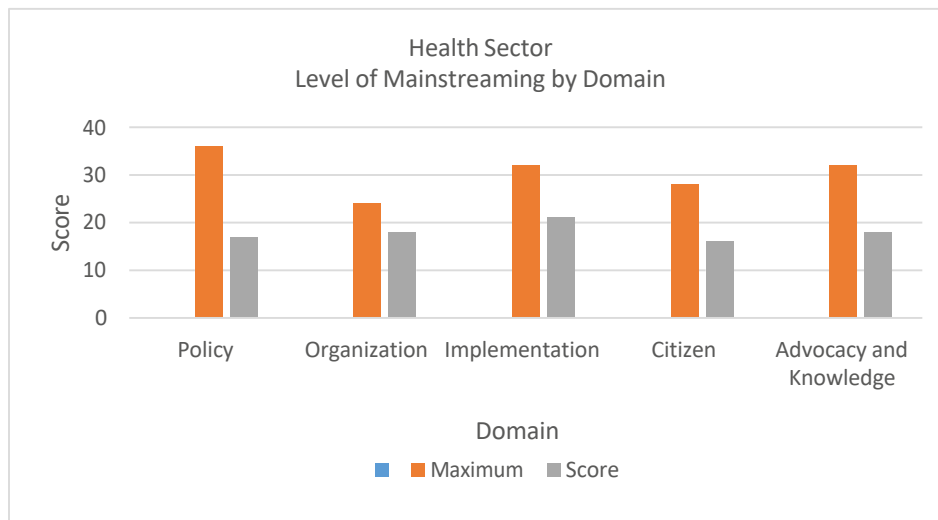


Figure 14: Health Sector Level of Mainstreaming by Domain – St Lucia

Factors contributing to the **advocacy and awareness** score include the presence of methods and analytical tools for integrating DRR such as Environmental Impact Assessments (EIA), Vulnerability and Capacity Assessments, facility inspection guidelines, shelter inspection guidelines, epidemiological profiling, weekly syndromic surveillance and tools from the Safety Index of the Safe Hospitals Initiative. These are further supported by the Health Management Information System (HMIS) which is the main decision-support system and database for the health sector. GIS implementation in the health sector has not yet commenced, though plans are being put in place to facilitate this. Structured research on hazards such as Hazard, Vulnerability and Risk (HVR) studies and economic impact analyses are also not being done to the extent that is required for mainstreaming. Dissemination of information is being done through public education for targeted groups. The Bureau of Health, for example, has been very active in schools and the private sector using all forms of media. Some gaps in the advocacy sphere include the need for advocacy plans and strategies, and the lack of staff to support public awareness programmes.

In the area of citizen participation, NGOs and CBOs are represented in the health sector. These include the district committees established by NEMO that include one health care worker and one environmental officer. Also included is the Red Cross through its Community-based Disaster Risk Management (CBDRM) Teams, and cadet corps. Despite this representation, civil society has not influenced the priorities of the sector, and more specifically, has not influenced the prioritisation of DRR issues.

The reporting lines from local to national government are clear, but local government receives no budgetary allocation for DRR activities. Furthermore, there is no specific budget line at the national level for DRR work in the sector. With respect to vulnerable groups, where projects are in place, participation of these groups is mandated, but there is generally no deliberate effort to ensure their inclusion in DRR discussions for health. Hazard maps and plans are in place and community consultations are held. Through these mechanisms, a list of vulnerable persons have been identified. It should be noted that previous programmes, such as the 'Mental Health Programme', need to be re-instituted because of their level of success in addressing the needs of some types of vulnerable groups from a DRR perspective.

At the local level, the health sector is recognised as having a key role during the post-disaster needs assessment stage in order for the recovery phase to commence. Therefore, plans at the local level only address early recovery, but not long-term recovery.

Health Sector – Final Score

The level of mainstreaming for the health sector is 0.58 out of 1. This means that the health sector has achieved a moderate level of mainstreaming. This indicates that identifiable actions have taken place, and progress is steady, but needs continuous actions to enhance DRR mainstreaming (Table 33).

Table 33: Final Health Sector Score – St Lucia

Level of Mainstreaming			Health	
Domain	Weight	Maximum Score	Score	Weighted Score
Policy	5	36	17	2.36
Organisation	3	24	18	2.25
Implementation	3	32	21	1.97
Citizen	3	28	16	1.71
Advocacy & Knowledge	5	32	18	2.81
Total	19	152	90	11.11
Score				0.58

Challenges and Gaps with Mainstreaming

The sector has identified a few gaps/challenges that affect its progress with mainstreaming:

- a. The sector is in need of capabilities and resources. Despite external funding, resources are still insufficient. Budgetary resources are often released in reaction to crises and this does not allow for proactive action;
- b. Training of health sector staff in DRM is required. Some training needs include

Incident Management Systems, field operations management, including Emergency Operations Centre (EOC) management, and mass casualty management;

- c. Some critical issues that need to be addressed within the sector include the absence of an effective tool for Monitoring and Evaluation (M&E), and a disaster management plan that integrates the roles of other sectors. Skills are required in the areas of chemical, biological, radiological, and nuclear management, as well as in the designing and executing simulation exercises, and also in risk assessment;
- d. Other critical issues relate to the relationship of the sector with other sectors such as the Ministry of Agriculture, the private sector, the UWI and other universities and academic institutions. Greater collaboration is needed to reduce duplication, and increase the sharing of information as well as efficiency of the use of resources.

Overcoming the Challenges – Strengths of the Sector

The Health sector has the following capabilities that will augur well for its efforts at mainstreaming:

- a. The Public Health Act (1975) is a critical piece of legislation available to the health sector. It provides the legislative backing that allows the sector to implement its risk reduction activities;
- b. There is a well-established structure for the health sector from the national to local levels and to a great extent, this structure is supported by Standard Operating Procedures (SOPs) for the various levels;
- c. The sector has forged linkages and cooperates well with some government and non-governmental organisations;
- d. The sector has regional and international resources and linkages that it can readily tap into, for example, the Caribbean Public Health Agency (CARPHA), PAHO/WHO, UN and the EU. The sector can call on these institutions to provide training, technical support and funding.

Opportunities for Strengthening CDM in the Sector

Opportunities for strengthening CDM in the sector include:

- a. The UWI and other research institutions can collaborate with the sector in conducting research and developing guidelines and DRR programmes and other support materials for the health sector;
- b. New and emerging diseases, and climate change present opportunities to better understand risk and vulnerabilities and mainstream CDM in the sector. This can also make the sector attractive for funding risk reduction. It also presents opportunities to deepen relationships and collaborate with regional and local partners;
- c. The development of a CDM strategy, framework and plan for the sector with the associated M&E tools is very important to track progress, evaluate decisions and progress, and avoid duplication among sector agencies and other local agencies.

2. Water Sector

Overall, the water sector is achieving approximately 70% progress in its mainstreaming efforts based on the prioritisation matrix. The **citizen** and **advocacy and knowledge** spheres are on par in their progress both recording the highest level of mainstreaming at just over 78%. The **organisation** domain is also performing reasonably well at 75%, however, the domain with the least progress is **policy** (Table 34 and Figure 15).

The factors that are mainly responsible for the citizen sphere's score include the existence and functioning of community-based organisations (CBOs). This includes the district committees, the Caribbean Youth Environment Network (CYEN), the Soufriere Foundation and the Buboneau Youth Synergy. There has been civil society's involvement in monitoring the activities of the water sector through the St Lucia National Trust, however, strengthening is required. Vulnerable groups participate through these community-based systems such as the Red Cross' Community Disaster Risk Management Team (CDRT) and CYEN. Through these groups, hazard mapping is conducted. With respect to the presence of accountable political structures, a National Climate Change Committee is in place and has clear lines of communication from local to national levels. Funding to implement local government DRR initiatives is mainly project-based.

The areas contributing to the high advocacy and awareness scores are:

- Presence of a comprehensive GIS based at the Forestry Department and the Ministry of Planning. This functions as the database for the sector;
- An agro-network portal is available for sharing of information and an app is soon to be launched to monitor rainfall thresholds;
- Structured processes of research take place, such as the use of the ECLAC methodology to estimate the socio-economic impact of events;
- The UNDP's Common Alerting Protocol Project is hailed as an innovative project that has enhanced early warning and the availability of data for decision-making;
- Public relations is well-rounded and there is continuous updating of the communication strategies.

The main area within advocacy and awareness domain that needs improvement is the need for capacity development plans and professional training courses to enhance the DRR knowledge of technical experts within the sector.

Table 34: Water Sector Score – St Lucia

Water Sector	Maximum	Score	Percentage of Maximum
Policy	36	21	58.33
Organisation	24	18	75.00
Implementation	32	21	65.63
Citizen	28	22	78.57
Advocacy and Knowledge	32	25	78.13
Total	152	107	70.39

The **organisation** domain performed well with a number of indicators being highly rated in this domain. For example, focal points have been named for the sector and these are functioning. There is a strategic plan for the period 2010–2020, and there are several committees that have

been established, are functioning, and meet on a timely basis. Where internal procedures are concerned, there are guidelines for some procedures, but SOPs are lacking.

In addition to the advocacy and awareness domain, the main area for improvement is the need for training to be conducted with focal points and key sector personnel. Training is sometimes conducted, but this is ad hoc and usually project-based.

Actions within the **implementation** sphere that contribute to mainstreaming include:

- The presence of legal framework for the water sector, though some strengthening is required;
- Strong system of enforcement by the forestry officers and water resources officers;
- The piloting of projects such as the Early Warning System Pilot Project by UNDP, the ground water exploration pilot project and GIS for non-revenue water reduction.

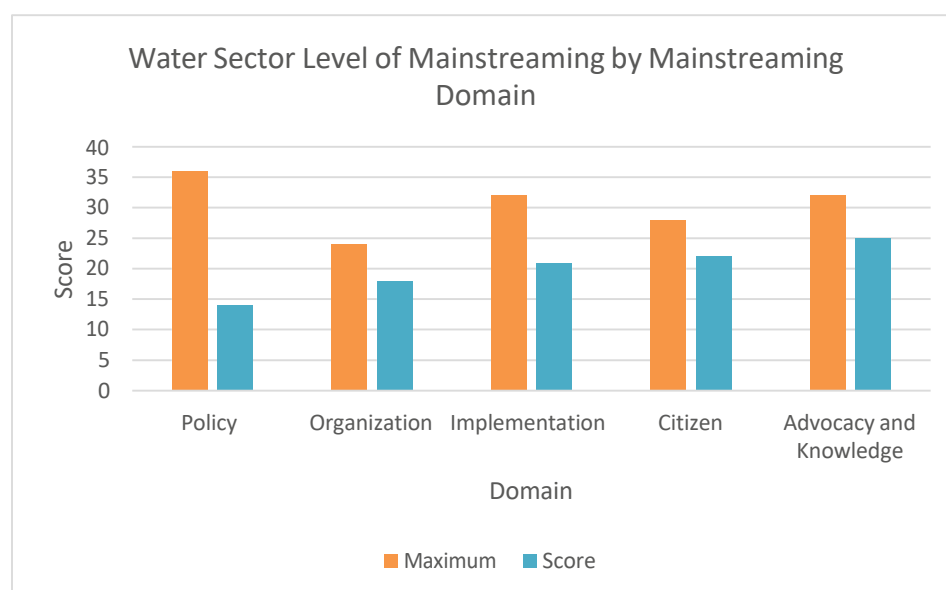


Figure 15: Water Sector Level of Mainstreaming by Domain – St Lucia

The level to which risk assessments are done prior to the construction of infrastructure and public investments projects needs improvement. These are done for major projects, but there is a lack of monitoring. Similarly, there is need for improved enforcement of the guidelines for the screening of projects during reconstruction.

At 58%, the **policy** domain is in need of significant improvement in CDM mainstreaming. While there is a plethora of sector acts that can be used to support efforts at mainstreaming, some are old and need updating. These include the Water and Soil Ordinance (1945) and the Wildlife Protection Act (1980). The most recent is the Water and Sewerage Act (2008). Additionally, improvements in the institutional framework are required to better enable the sector to integrate DRM issues.

Challenges and Gaps with Mainstreaming

The sector has identified a few gaps/challenges that affect its progress with CDM mainstreaming:

- a. The issue of data is a key challenge for the sector. There is a general lack of capacity to collect data, and when collection occurs, it is not as timely as it should be. Lack of data collection equipment, human resources, and a central repository for data are also hindering data collection;
- b. Insufficient funding is also a challenge. In some instances, this affects the ability to maintain data collection hardware and software;
- c. Insufficient technical capacity is also an obstacle. There is need for training and rationalisation of human resources. In some instances, human resources are under-utilised and with training, they could be re-allocated to support areas of need. The sector also needs the services of a hydrologist and trained persons in water management. Spatial analysis and planning could also be boosted with the GIS tool.

Overcoming the Challenges – Strengths of the Sector

The water sector currently has capabilities that can support CDM mainstreaming. These include:

- a. Some amount of data on water (water abstraction) collected by the Water Authority;
- b. There are best practices and projects in place which can provide lessons learnt or scaled up and replicated. This includes the establishment of an early warning system;
- c. Inter-sectoral collaboration is taking place and partners provide key services such as community mobilisation (from the Social Transformation Agency), funding (from IICA and FAO), assistance with water abstraction (from the Forestry Department), and enforcement with issues such as illegal dams (from the Department of Planning). Other collaborators include the Ministry of Agriculture, Ministry of Finance, Ministry of Health, Sustainable Development, The Police, and the Judiciary;
- d. Support can be had from other sectors, such as promotion and awareness by the

ourism sector, awareness and training by the education sector and technical support from regional and global partners such as CDEMA, FAO, CARICOM, the World Bank, IDB, the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention to Combat Desertification (UNCCD).

Opportunities for Strengthening CDM in the Sector

Opportunities for strengthening CDM in the sector include:

- a. A number of regional projects are being implemented that can be leveraged for the development of some of the key pieces of policies, strategies and frameworks. These include the Japan Climate Change Project currently being implemented in partnership with UNDP;
- b. Training in DRM-related areas at the managerial and operational levels will strengthen the capacity of the sector to implement CDM;
- c. The water sector is diverse and requires multi-agency data. A central repository is needed to centralise storage and retrieval of data.

Water Sector – Final Score

The level of mainstreaming for the water sector is 0.71 out of 1 (Table 35). This means that the water sector has achieved a moderate level of mainstreaming, that is to say, identifiable actions have taken place, and progress is steady, but there needs to be continuous actions to enhance DRR mainstreaming.

Table 35: Final Water Sector Score – St Lucia

Level of Mainstreaming			Water Sector	
*Domain	Weight	Maximum Score	Score	Weighted
Policy	5	36	21	2.92
Organisation	3	24	18	2.25
Implementation	3	32	21	1.97
Citizen	3	28	22	2.36
Advocacy & Knowledge	5	32	25	3.91
Total	19	152	107	13.40
Score				0.71

3. Agriculture Sector

The agriculture sector in St Lucia is performing at approximately 39% of the level expected based on the indicators used for mainstreaming in this study (Table 36). It should be noted, however, that a major limitation in the scores for this sector is that there are a number of ratings missing for the agriculture sector, especially in the policy domain. In addition, only one representative from the agriculture sector populated the matrix, so the views of a mix of representatives from the sector have not been captured.

The overall score reflects the performance of all five domains. Despite having legislations, such as the Plant Protection Act (1908), the Plant Protection Regulation (1995), and the Pesticides and Toxic Chemicals Control Regulation, which support DRM, the policy domain is where the most strengthening is required.

Table 36: Agriculture Sector Score – St Lucia

Agriculture Sector	Maximum Score	Score	Percentage of Maximum
Policy	36	11	30.56
Organisation	24	11	45.83
Implementation	32	13	40.63
Citizen	28	10	35.71
Advocacy and Knowledge	32	15	46.88
TOTAL	152	60	39.47

Areas requiring improvement include the need to finalise the Drought Management Plan and improved budgetary allocation to the sector.

The **organisation** sphere is also at the same level of mainstreaming and this is due mainly to the absence of a focal point for the sector, lack of HR training and capacity plans. Notwithstanding, some areas of this sphere have progressed such as the training that has taken place with sector stakeholders and these training programmes include Vulnerability and Capacity Assessment (VCA), Conservation Reserve Enhancement Program (CP4D), and Mainstreaming Climate Change in the Country Work Programme. The DRR framework has strong agriculture sector representation through committees established under projects like the World Bank-funded Disaster Vulnerability Reduction Project (DVRP), Health and Environmental Health Committee, and Water and Sewage Company Inc. St Lucia (WASCO).

Most areas of the **implementation** sphere have been given a low rating. This means that activities in this domain are incipient or ad hoc. For example, no detailed risk assessments have been conducted for the sector and while the Ministry has a communication unit, there is no sustained documentation and dissemination of project case studies. Pilot projects have been implemented, including the Integrating Watershed and Coastal Area Management (IWCAM) project that invested in artificial wetland in Dennery, on the island's east coast, to reduce coliform levels in rivers used for irrigation. There are also initiatives under DVRP that provide loans for rain-water harvesting and climate change adaptation. These are still not being done at a scale to demonstrate the benefits of mainstreaming.

With respect to compliance and enforcement, regulations such as the Agriculture Incentive Act exist. This sets standards such as minimum setbacks of farms from waterways, that, if breached, could result in duty concession being withheld from farmers. However, enforcement is inconsistent. Monitoring and evaluation activities are conducted, but this takes place mainly at the project level, with no overall monitoring at the sector level to determine DRR progress or the level of mainstreaming.

The **citizen** sphere has the second lowest level of mainstreaming at almost 36%. Among the areas where progress is being achieved is civil society's representation in the sector. These groups include the Farmers' Cooperative, Fisherman's Cooperative, and the National Fair Trade Cooperative. Despite the involvement of civil society, they are not involved in the monitoring of DRR progress in the sector.

There is a structure for reporting on DRR between the local and national level, however, this structure is not functioning. Additionally, local government does not have the level of budget to respond to local demands and implement DRR activities, including response and recovery activities. Communities, however, including vulnerable groups, do participate in DRR activities for the sector.

Advocacy scored the highest of all the domains with approximately 47% level of mainstreaming. Key indicators that contributed to this score include the presence of decision-

support systems in the form of a database for black sigatoka disease, and the promotion of good practices within the sector through the communications unit of the Ministry. Through this unit, the Ministry's website is kept updated and a weekly television programme that promotes activities within the sector is aired every Thursday. This unit also assists with targeted public awareness activities, but the most significant outreach is through the extension department that presents materials to various districts.

Despite progress in the areas above, there are several areas within the **knowledge** and **advocacy** sphere that need improvement. Methods and tools for the integration of DRR, such as guidelines, risk analysis and cost-benefit analysis methodologies need to be developed or adopted for the sector as these are mainly utilised on a project basis. Some of these methodologies will also impact the structure process of research on hazards and vulnerability that affect the sector. Currently, these researches are not taking place. Similar research on new DRR techniques applicable to the sector need to be undertaken.

Capacity development plans that ensure the technical experts within the sector benefit from DRR courses are also lacking. While sector experts receive DRR-related training from time to time, this is not structured.

Challenges and Gaps with Mainstreaming

The agriculture sector has had a few challenges that have affected its level of CDM mainstreaming, namely:

- The socio-economic profile of farmers has shown that there is a high level of poverty and low educational attainment. This means that the farmers, especially small farmers, cannot afford the cost of implementing risk reduction measures and this increases their level of vulnerability;
- There is a lack of financial resources to invest in mitigation and adaptation technologies;
- The heightened level of vulnerability in the agriculture sector is due mainly to high levels of poverty in rural areas, climate change, and the frequency of impacts of hazards including pests and diseases;
- Lack of data is also a challenge for the sector;
- Limited capacity to implement DRM affects the pace of mainstreaming. This includes the need to train key personnel in the sector in climate change, DRM and other related areas, and to develop critical policy documents such as DRM plans;
- There is limited insurance coverage for the sector.

Overcoming the Challenges – Strengths of the Sector

Despite the challenges, the sector has key strengths that can be harnessed in support of mainstreaming DRM in the sector. These include:

- A number of support agencies, such as PAHO, CARDI and IICA that support DRM in the agriculture sector;

- The existence of laws and policies that can be used to strengthen mainstreaming. These include the Crop Protection Act, Pesticide and Toxic Chemical Control Act and the Draft Agricultural Drought Management Plan;
- Existence of capacity and resources such as a diagnostic lab, and the use of ICT to communicate early warning messages, and pesticide and disease thresholds.

Opportunities for Strengthening CDM in the Sector

Opportunities for strengthening CDM in the sector include:

- Research in technologies, such as water harvesting and greenhouse farming, that can reduce risk and adapt to climate change;
- Options to integrate DRM in the work programmes and work plans of personnel within the sector;
- Ability to conduct research and studies, such as risk and vulnerability assessments, the findings from which can improve the decision-making process and guide adaptation and mitigation.

Agriculture Sector – Final Score

The level of mainstreaming for the agriculture sector is 0.39 out of 1. This means that the level of mainstreaming is low and significant actions are required to integrate DRR into sector activities (Table 37).

Table 37: Final Agriculture Sector Score – St Lucia

Level of Mainstreaming			Agriculture	
Domain	Weight	Maximum Score	Rating Score	Weighted
Policy	5	36	11	1.53
Organisation	3	24	11	1.38
Implementation	3	32	13	1.22
Citizen	3	28	10	1.07
Advocacy & Knowledge	5	32	15	2.34
Total	19	152	60	7.50
Score				0.39

4. Tourism Sector

The tourism sector overall has achieved a 72% level of mainstreaming (Table 38). The domains that have achieved the highest level of DRR integration are **implementation** and **organization**, while the **citizen** domain has achieved the lowest level of mainstreaming. Like the agriculture

sector, the prioritisation matrix for the tourism sector was populated by one key tourism sector representative who has been named the focal point for the sector.

Table 38: Tourism Sector Mainstreaming Score – St Lucia

Tourism	Maximum Score	Score	Percentage of Maximum
Policy	36	24	66.67
Organisation	24	19	79.17
Implementation	32	28	87.50
Citizen	28	16	57.14
Advocacy and Knowledge	32	22	68.75
	152	109	71.71

The **implementation** domain scored the highest overall in the sector at 87.5%. A number of indicators contributed to this high score. For example, guidelines and checklists for risk-proofing tourism projects have been developed to screen projects for DRM consideration in order for them to be recognised and listed as

approved tourism products. Included in the checklists that must be satisfied are the following criteria:

- They must have adequate drainage structure;
- They must be approved by the Physical Planning Department;
- They must have a Business Continuity Plan (BCP).

In addition, the government has established concessions to assist with recovery activities. Monitoring is done to ensure that work is carried out in accordance with cabinet approval, physical planning approval, and building approval. Pilot projects are implemented and annual reports on the projects are submitted to NEMO. These experiences are also documented and disseminated.

Compliance and enforcement are also very strong. If the investor does not comply with the guidelines and approvals, concession is not granted for the tourism project. There is a clear regulatory framework for development and planning. The planning department submits EIAs for major developments to the Department of Tourism for review and feedback. The system of enforcement is working for the tourism sector and this has been presented in a combination of project reports and terms of reference outlined in cabinet, concluding with the intervention of the responsible minister where necessary.

Monitoring and evaluation of DRR is generally weak with the main considerations being time and resource availability.

The **organisation** domain is also performing well at almost 80%. DRR focal points have been named by NEMO and there are clear responsibilities and terms of reference for these positions. Training and capacity building programmes for focal points, led by key personnel, are planned and executed annually. Various sectors and sub-sectors are targeted for training based on feedback, and impacts of activities.

In regard to internal procedures, those linked to emergencies are incorporated in

the Standard Operating Procedures (SOPs) for the department's disaster management plan. Disaster risk management is also integrated into the guidelines and industry standards for the tourism sector. The DRR coordination mechanisms fully integrate the tourism sector. The tourism sector chairs the Hospitality Crisis Management Committee that reports to the main disaster management committee – the National Emergency Management Advisory Committee (NEMAC).

The **policy** domain has achieved approximately a 67% level of mainstreaming. Two main pieces of legislation provide the regulatory framework that promotes DRM integration in the sector. These are the Tourism Incentives Act No 6 (1996), and the Tourism Stimulus Investment Act No 4 (2014b). These legislations are important as the integration of DRR is mainly done through incentives provided for under these Acts. While there is no sector specific policy, tourism issues have been included in the National Climate Change Policy.

A National Disaster Risk Management Plan is in place with clearly defined roles for the tourism sector, and the tourism sector chairs the Hospitality Crisis Management Committee, which is active. The previous corporate plan for the sector included DRR outcomes and outputs. A new strategic plan is being drafted and in the meantime, the old plan is still being used. A sector DRM Plan, namely, the Hospitality Crisis Management Plan, is in place and includes roles for various stakeholders.

There have been institutional changes within the last few years that have demonstrated political commitment and leadership. A Safety and Security Unit has been created, though final approval is being awaited from Cabinet. It is also expected that the Hospitality and Crisis Management Plan will be amended to reflect the roles and responsibilities of the Safety and Security Committee when it is finally created.

The government's budgetary allocation for DRR activities in the tourism sector is limited, however, this is supplemented by project funding and Public Private Partnerships (PPP).

The **citizen** sphere focuses on the role of communities in DRR. For the tourism sector a number of NGOs work collaboratively with sector stakeholders. These include the St Lucia Hotel and Tourist Association (SLHTA), the Dive Association and Destination Management Companies (DMCs). These NGOs conduct monitoring, not of the entire sector, but mainly over their respective portfolios. Communities that are located within designated tourist areas assist with monitoring despite not having a monitoring plan. They express concerns to the Department of Tourism, and because of the sensitive nature of the tourism industry, these concerns are treated with urgency, and solutions found. There are clear lines of reporting between local and national levels, mainly through regional offices, but decision-making is still centralised. An area that needs significant improvement is the extent to which local communities and vulnerable groups are involved in DRR in the sector. The Department of Tourism collaborates with government stakeholders, but does not have any policies that govern gender, youth and the differently abled.

Tourism Sector – Final Score

The level of mainstreaming for the tourism sector is 0.72 out of a maximum of 1 (Table 39). This means that the tourism sector has a moderate level of mainstreaming. That is to say, identifiable actions have taken place, and progress is steady, but the sector needs continuous actions to enhance DRR mainstreaming.

Table 39: Final Tourism Sector Score – St Lucia

Level of Mainstreaming			Tourism	
Domain	Weight	Maximum Score	Rating Score	Weighted
Policy	5	36	24	3.33
Organisation	3	24	19	2.38
Implementation	3	32	28	2.63
Citizen	3	28	16	1.71
Advocacy & Knowledge	5	32	22	3.44
Total	19	152	109	13.63
Score				0.72

Table 40: Summary of Sector Scores for CDM Integration

Sectors	Scores	Level of Mainstreaming
Health	0.58	Moderate
Water	0.71	Moderate
Agriculture	0.39	Low
Tourism	0.72	Moderate

Based on the foregoing assessment, the agriculture sector has the lowest score of all the sectors followed by the health sector.

4.3.4 Selection of Priority Sectors – St Lucia

Table 41 summarises the scores for the four sectors assessed using the prioritisation matrix. Using the scores for the level of mainstreaming only, the two sectors with the lowest scores are the agriculture and health sectors. Therefore, the two sectors that should be prioritised for further intervention under this consultancy are the agriculture sector and the health sector. The finance sector was not included in the prioritisation process because the prioritisation matrix was not completed for the sector.

Table 41: Summary Score for All Sectors – St Lucia

Level of Mainstreaming			Category Weight		6		Health		Water		Tourism		Finance		Agriculture	
Domain	Weight	Max Score	Score	Weighted Score	Rating Score	Weighted Score	Rating Score	Weighted Score	Rating Score	Weighted Score	Rating Score	Weighted Score				
Policy	5	36	17	2.36	21	2.92	24	3.33		0	11	1.53				
Organisation	3	24	18	2.25	18	2.25	19	2.38		0	11	1.38				
Implementation	3	32	21	1.97	21	1.97	28	2.63		0	13	1.22				
Citizen	3	28	16	1.71	22	2.36	16	1.71		0	10	1.07				
Advocacy & Knowledge	5	32	18	2.81	25	3.91	22	3.44		0	15	2.34				
Total	19	152	90	11.11	107	13.40	109	13.63		0	60	7.50				
Score				0.58		0.71		0.72				0.39				

4.4 Summary and Comparison of Final Scores for Each Country

The data shows that St Lucia has the highest level of mainstreaming for all sectors, having only one sector with a low level of mainstreaming. Dominica and Antigua and Barbuda, on the other hand, have three out of four sectors with low levels of mainstreaming (Table 42).

Table 42: Summary of Scores by Sector for Dominica, St Lucia, and Antigua and Barbuda

Countries	Sectors				
	Health	Water	Agriculture	Finance	Tourism
St Lucia	Moderate	Moderate	Low	N/A	Moderate
Antigua and Barbuda	Moderate	Low	Low	Low	N/A
Dominica	N/A	Low	High	Low	Low

The health sector generally has the highest level of mainstreaming across the three countries, attaining moderate level of CDM integration in both St Lucia and Antigua and Barbuda. The health sector in Dominica was not assessed. Conversely, both the water and finance sectors have attained the lowest level of progress with two countries each attaining low levels of mainstreaming.

The agriculture sector in Dominica attained a high level of mainstreaming. A similar situation was also observed for St Lucia where tourism, though moderately mainstreamed, recorded a figure for mainstreaming that places it just below the high category.

At the national level, all countries have a Disaster Risk Management Plan, however, at the sectoral level, not all sectors have a sector DRM Plan or a sector plan that integrates DRM concerns or has DRM as an objective. The issues relating to the barriers, challenges and gaps are generally founded in the absence of this plan which would treat with issues of raising awareness of the need for DRM in the sector, coordination, and other DRM-related issues. Similarly, the absence of strategic plans to operationalise sectoral plans or national plans is lacking in several of the sectors. This creates the additional challenge, because the absence of a plan also means the absence of M&E frameworks to determine what, if any progress is being made with mainstreaming. Generally, initiatives taken are ad hoc and project-based.

Country work programmes are mainly in draft, but are still being used to operationalise CDM at the national level. These plans are guided by the 2014–2024 CDM Strategy.

With respect to DRM legislation, while all countries have a national DRM plan, some are currently being revised to make them more relevant to current DRM trends and challenges. Similarly, at the sectoral level, there are sector acts that are being used to support the integration of DRM in the sectors. Some sectors have multiple acts. The challenge here relates to some acts being old and most likely, not broad enough to address some of the mainstreaming needs of the sector. A second challenge is the ability of the sector to adequately use these normative instruments to mainstream DRR in the sector. As indicated in the barriers for mainstreaming, there is a lack of awareness of how to integrate DRM in the sectors and this may be contributing to the inability of sectors to use available instruments to support mainstreaming or to simply

recognise that initiatives being undertaken are part of the mainstreaming process.

CDM policies exist, but in some cases, these documents are in draft and not formally approved. The model policy is being used to guide the revision process.

There is a noticeable absence of tools, techniques and methods across countries and sectors to undertake hazard, vulnerability and risk studies in the sectors. There is an associated challenge of lack of training in the use of these tools. While the development approval process is mainly used to integrate hazard information in the development approval process, there is often an absence of sector-specific input or guidance materials to ensure that all sectoral DRR concerns are included in these investments. This is significant as in most cases enforcement is weak.

In all cases, budget allocation generally to the sectors is weak. Some sectors have attracted funding through projects and several good practices can be identified from these initiatives. The challenge is an absence of documentation of these projects and associated lessons learnt that can inform replication and scale up.

Data availability and the absence of a DRR clearinghouse are concerns for most sectors in each country and this is exacerbated by limited data sharing across agencies.

There are some sectors, like agriculture and health, where local level participation is significant, including those of NGOs and communities. The governance framework for some countries does not include traditional structures of local government. Resourcing local government and its linkage with the national structure are sometimes unclear and this affects how well communities in some sectors are integrated in the process.

Despite the challenges, there are some countries like St Lucia that can provide case studies of best practices. Similarly, the agriculture and tourism sectors in Dominica and St Lucia respectively have made significant progress with mainstreaming and can be examined for best practices in mainstreaming.

5 SECTORS RECOMMENDED

The assessment has identified the two sectors in each country which emerged as priority sectors for the development of the mainstreaming framework, guidelines and actions plans and the results of the assessment are outlined in Table 42 below. These sectors are:

- a. St Lucia – Agriculture and Health;
- b. Antigua and Barbuda – Agriculture and Water;
- c. Dominica – Finance and Water.

Table 43 : Prioritised Sectors in each Country

Countries	Priority Sectors				
	Health	Water	Tourism	Finance	Agriculture
St Lucia	√			N/A	√
Antigua and Barbuda		√	N/A		√
Dominica	N/A	√		√	

Though there were overlaps in the priority sectors which emerged across the target countries, there is no one sector which was common to all three countries. This would imply that four sectors ought to be targeted for the development of guidelines – Agriculture, Health, Water and Finance. The scope of this project, however, requires that two sectors be selected. Hence, the recommendation is that guidelines and action plans be developed for the finance and water sectors.

Notwithstanding the assessment process and the sectors that have been prioritised, a brief examination of the availability of guidelines and frameworks for the four sectors was also undertaken. This was to ensure that the work undertaken to develop mainstreaming framework and guidelines adds value and does not duplicate any existing documents that are available and considered adequate for the Caribbean context.

Further interventions in the sectors can take into consideration the performance of each sector in each of the five domains that formed the basis of this prioritisation assessment: **policy, organisation, implementation, citizen, and advocacy and knowledge**. Similarly, sectors are to be encouraged to continue and improve upon processes that are currently integrating CDM, and to begin efforts to ensure that this is done with an understanding of the different needs and roles of men and women in each sector, and the other cross-cutting themes of climate change, information and communication technology and the environment.

5.1 Selection of Finance and Water Sectors

Since the design of the project in 2007, much improvement has been made in the availability of literature documenting processes, frameworks and guidelines for sector mainstreaming. Some of these documents are outlined below. The documents have been

briefly assessed on criteria such as range of hazards addressed, comprehensiveness, ease of use and applicability of the guidelines to Caribbean contexts. While much documentation exists on financing strategies and financing DRR, not much is documented on how to mainstream DRR in the finance sector. Although the development of financing strategies is an important element of mainstreaming and is essential in overcoming financial constraints to mainstreaming, if any success at mainstreaming is to be achieved and sustained, the sector also needs to address the other elements of the mainstreaming spheres. The noticeable absence of such guidelines and the importance of the finance sector to the mainstreaming efforts of other sectors represent a solid rationale for efforts to be centred on this sector.

Consideration is also to be given to CDEMA's efforts at mainstreaming CDM in the sector. A sub-committee exists at the regional level to drive mainstreaming for the finance sector, however, the guideline and tools for this sector are noticeably missing when compared with other sectors such as education, tourism and agriculture. This could present opportunities for the EKACDM Initiative to collaborate with CDEMA and the finance sub-committee to achieve some of the outputs in their work plan, in this case, policy guidelines and frameworks for the finance sector.

Additionally, the finance sector has no overarching organisation or development partner strongly supporting and leading mainstreaming in the Caribbean. This is unlike the health and agriculture sectors that have PAHO and FAO providing strong interventions and championing initiatives that have resulted in tangible results for those sectors. Regionally, there could be opportunities for the CDB to collaborate on this initiative.

Not only is there a deficiency of guidance on mainstreaming in the finance sector in the region, but similar observations have been made for other regions such as Asia and the Pacific which have vulnerabilities and economies similar to those in the Caribbean. A guidance document produced under this EKACDM Initiative could also be important for other regions with similar vulnerabilities and socio-economic and physical profiles.

Water Sector

The water sector is complex and cross-cutting and as such, there has been no standardised scope or definition for the water sector. This sector intersects with meteorology, agriculture, health, sanitation, drought management, utilities and the environment. As a key component of the utilities, the regulations, policies and stakeholders governing this sector are diverse. Developing a policy guideline and framework for this sector will rely on guidelines for other sectors. The complexity of this sector makes it difficult to develop guidelines that are sufficiently universal to be relevant to all the areas that comprise this sector. Leadership and resource allocation will be locally-driven based on nuances of each country. Regionally, the Caribbean Institute of Meteorology and Hydrology (CIMH) and the Caribbean Community Climate Change Centre (CCCCC) could drive this sector, however, locally, countries will need to determine the most appropriate agency to lead based on the scope of their laws and regulations. A major challenge for this sector, identified as a barrier to mainstreaming is the governance framework, more particularly,

the ability to coordinate multiple agencies that span the range of disciplines that comprise this sector.

The water sector has several resources available for mainstreaming, especially for Water Sanitation and Hygiene (WASH). For this guidance document, a compendium of available resources could be developed and reviewed, and where gaps within the mainstreaming framework are identified, specific guidelines could be created. These include:

1. Disaster Risk Reduction and Water, Sanitation and Hygiene...: Comprehensive Guide. A Guideline for Field Practitioners Planning and Implementing WASH Interventions (Erik Rottier, 2011) (Care Nederland)(http://educationcluster.net/wash/wp-content/uploads/sites/5/2013/09/GWC-Disaster_Risk_Reduction_and_WASH1.pdf)
2. Water and Risk: Developing Sustainable and Resilient Communities (Swedish Water House, 2014)(<https://www.sei-international.org/mediamanager/documents/Publications/Johannessen-et-al-2014-Water-and-Risk.pdf>)

Alternatively, a specific aspect of the sector could be selected and guidelines developed for that sub-sector. This selection should be done in consultation with the EKACDM team, and supported by relevant secondary data.

5.1.1 Rationale for Elimination of Health and Agriculture Sector

The body of literature available on mainstreaming in the sector is comprehensive and varied. The most applicable mainstreaming guideline for the health sector is the *“Guidance on Mainstreaming Disaster Risk Reduction in the Health Sector, Myanmar – Rural Settings”* prepared by Myanmar’s Ministry of Social Welfare, Relief and Resettlement and Ministry of Health found at

(http://www.adpc.net/2011/Category/Documents/DocumentDB/Guidance_MDRD_Health_Myanmar_EN.pdf). This document was developed for Myanmar and its purpose is to:

- Emphasise the ‘need’ to mainstream disaster risk reduction (DRR) in the health sector initiatives;
- Identify key approaches for mainstreaming DRR in the health sector in Myanmar, particularly in rural areas, based on the good practices, innovative approaches and lessons learned of Government, UN agencies, NGOs and others involved in the Cyclone Nargis recovery;
- Identify key ‘vulnerabilities and opportunities’ for creating a ‘safer health system’ in Myanmar.

Though developed for Myanmar, the scope of the guidelines sufficiently covers the range of mainstreaming gaps and challenges that are affecting the health sector in the Caribbean context as outlined in the findings in the three (3) countries. The Scope of the Guidelines covers the following:

- Focuses primarily on mainstreaming DRR in the health sector by looking into its structural, non-structural and functional aspects;
- Provides suggested approaches for mainstreaming DRR in the health sector;

- Provides key points of considerations in planning and implementing hospital construction programmes.

A section of this document provides guidance on “How to Mainstream Disaster Risk Reduction in the Health Sector” and this guidance is provided in the form of processes/steps, guidance, checklists, diagrams, case studies and references to existing tools and templates.

Other documents available and developed specifically for the health sector are:

- Seismic Safety of Non-Structural Elements and Contents in Hospital Buildings, Government of India – UNDP Disaster Risk Management Programme, 2007 (<http://nidm.gov.in/PDF/safety/public/link1.pdf>)
- Guidelines for Hospital Emergency Preparedness Planning, Government of India – UNDP Disaster Risk Management Programme, 2002–2008 (http://asdma.gov.in/pdf/publication/undp/guidelines_hospital_emergency.pdf)
- Health and Disaster Risk: A Contribution by the United Nations to the Consultation leading to the Third World Conference on Disaster Risk Reduction (WCDRR) (UN, 2015a) (<http://www.wcdrr.org/documents/wcdrr/prepcom1/UN/ATTR8FWA.pdf>)

In addition to global materials on mainstreaming in the sector, the Pan-American Health Organization (PAHO) has been supporting health sector mainstreaming in the Caribbean and has developed tools, toolkits and guidance materials on mainstreaming that include the following:

- Design Manual for Health Service Facilities in the Caribbean
- Emergency Care and Treatment (ECAT) in Disasters
- Guidelines for Vulnerability Reduction in the Design of New Health Facilities
- Protecting New Health Facilities from Natural Disasters
- Hospital Safety Index.

Given this body of work in the region, and with applicability to the region, it was decided that there is an existing basis for CDM mainstreaming to advance in the health sector. Hence, the need for new guidelines is less urgent than in another sector without similar foundation in the area.

Agriculture Sector

Similar to the health sector, the FAO has been providing support to mainstreaming in the agriculture sector and has produced a number of guidance documents that can support the various elements of mainstreaming. The FAO publications and publications by other publishers include:

1. *Resilient Livelihoods: DRR for Food and Nutrition Security* (FAO, 2013, ed,) (<http://www.fao.org/3/a-i3270e.pdf>)

The FAO Disaster Risk Reduction for Food and Nutrition Security Framework Programme aims to provide strategic direction to the implementation of disaster risk

reduction measures in member countries across the agricultural-related sectors in

line with the Hyogo Framework for Action and its five priority areas. In addition, it promotes an inter-disciplinary and programmatic approach to disaster risk reduction for food and nutrition security, by integrating the agriculture, livestock, fisheries, forestry and natural resource management sectors, to respond more effectively to the diverse livelihoods of small-scale farmers and to the complex set of factors which contribute to disaster risks.

2. *FAO Facility for Mainstreaming Disaster Risk Reduction and Resilience in Agriculture* (FAO, (n.d.)

(http://www.fao.org/fileadmin/user_upload/emergencies/docs/Mainstream%20DRR.pdf)

This Facility is a platform to help countries access technical and financial resources to fully integrate risk reduction principles and practices in agriculture. Its purpose is to increase the capacity of national governments and civil society to mainstream disaster risk reduction in agricultural sectors through support in the design and implementation of appropriate policies, institutional mechanisms and programmes, with focus on developing countries regularly exposed to natural hazards. It will also help countries rapidly progress in meeting disaster risk reduction goals in agriculture post-2015.

3. The FAO has also provided training through their *FAO Policy Learning Programme* (FAO, 2009a) (http://www.fao.org/docs/up/easypol/816/presentation-easypol_224EN.pdf)

which is designed for high-level officials with cutting-edge knowledge and strengthened capacity for decision-making. This programme has modules on “*How to mainstream Climate Change Adaptation and Mitigation into Agriculture Policies*” (FAO, 2009b)

(http://www.fao.org/docs/up/easypol/778/mainstream_clim_change_adaptation_agric_policies_slides_077en.pdf)

4. *Incorporating climate change considerations into agricultural investment programmes. A guidance document* (FAO, 2012)

(<http://www.unclearn.org/sites/default/files/inventory/fao156.pdf>)

In recent years, different partners have developed tools and guidelines to facilitate climate change mainstreaming, and some examples are provided in this document.

This guidance document aims to assist agricultural investment formulation practitioners in incorporating climate change considerations into agricultural investment projects and programmes. It is intended for national and international staff and consultants, as well as government staff involved in mobilising investment for agriculture and rural development, mainly through assistance to project or programme identification, formulation and supervision. It is meant to apply to investment projects or programmes in agriculture and rural development (agriculture in the broad sense, including fisheries, livestock and forestry). It can also be used for stand-alone climate change projects or programmes.

5. *Mainstreaming Disaster Risk Reduction into Agriculture: A case study from Bicol Region, Phillipines* (FAO, 2013)

(<http://www.fao.org/docrep/018/i3343e/i3343e.pdf>)

6. *Agricultural Sector Risk Assessment: Methodological Guidance For Practitioners* (World Bank, 2016)

<http://documents.worldbank.org/curated/en/586561467994685817/pdf/100320-WP-P147595-Box394840B-PUBLIC-01132016.pdf>

This report provides methodological guidance for conducting an agriculture sector risk assessment. The guidance is based on the World Bank's agriculture risk management team's experience assisting governments in conducting sector and key commodity supply chain risk assessments in more than 20 countries. The World Bank's conceptual framework for agricultural risk management (ARM) looks at risk from an integrated perspective. The framework views agricultural sector risk assessment (ASRA) as a tool to help decision-makers understand risk exposure and to provide the basis for developing appropriate risk management solutions.

7. *Case Study of Rwanda – Guidelines for Mainstreaming Climate Change Adaptation and Mitigation in the Agricultural Sector* (Rwanda Environment Management Authority, 2011) (http://www.rema.gov.rw/rema_doc/IMCE_Doc/Guidelines%20-Agriculture.pdf)
8. *Agriculture and Disaster Risk. A Contribution by the United Nations to the Consultation leading to the Third World Conference on Disaster Risk Reduction (WCDRR) (UN, 2015b)* (<http://www.wcdrr.org/documents/wcdrr/prepcom1/UN/ATTFONWO.pdf>)

As in the case of the health sector, substantial tools for mainstreaming CDM in the agriculture sector exist, and can be adapted for use in the Caribbean.

The CDM governance structure also has two of the seven subcommittees dedicated to health and agriculture. As indicated in the regional progress with mainstreaming, these sectors have been showing good results where mainstreaming is concerned. In short, the gaps in mainstreaming for these two sectors are being addressed by CDEMA, FAO and PAHO in conjunction with national and sector partners.

5.1.2 Next Steps

The next steps involve the preparation of a framework for mainstreaming CDM in each of the recommended sectors with guidelines taking into account:

- Recommendations for mainstreaming CDM with action plans for operationalisation;
- Recommendations of tools and any relevant training which would be useful for mainstreaming;
- Identification of key stakeholders in the sectors and their roles in mainstreaming in the sectors with recommendations for improving their effectiveness; and
- Consideration of the cross-cutting themes of gender, climate change, information and communication technology (ICT) and the environment.

This output will constitute the final deliverable for the consultancy.

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Appendix 1: Prioritisation Matrix

See attachment

Appendix 2: Workshop Reports



Workshop on the Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Priority Sectors

Workshop Proceedings and Report

January 23-24, 2017, Roseau, Dominica

February 2017



Acknowledgement

The organisers of the workshop would like to acknowledge the support provided by the Disaster Risk Reduction Centre at the University of the West Indies Mona and the Office of Disaster Management in Dominica which allowed for the hosting and execution of the workshop.

1 Introduction & Background

A project workshop entitled ‘Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Sectors’ was organised by reThink Social Development Limited in association with the University of the West Indies Disaster Risk Reduction Centre and Dominica’s Office of Disaster Management from January 23-24, 2017 at The Garraway Hotel, Roseau, Dominica. This report describes the workshop objectives, background, preparations and participants, and summarises the proceedings, discussions and outcomes.

The entitled ‘Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Sectors’ project is part of the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Programme.

In 2013, the University of the West Indies Disaster Risk Reduction Centre (DRRC) of the Institute for Sustainable Development (ISD) launched the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Programme. The EKACDM, a five year initiative, aims to *“establish an effective mechanism for managing and sharing Comprehensive Disaster Management (CDM) knowledge that is used for decision-making in the public, private and voluntary sectors”* in the Caribbean. The programme, which is funded by the Government of Canada through Foreign Affairs, Trade and Development Canada (DFATD), has as its main priority the successful implementation of the CARICOM Enhanced CDM Strategy and Framework (2007-2012). The EKACDM Initiative was developed primarily to achieve outcome 2.1 and 2.2 under CDM Strategy Framework’s (2007-2012 Priority Outcome #2).

The framework- and guidelines for mainstreaming CDM project is being undertaken under Output 3.1.1 of the EKACDM Initiative. Its main purpose is to:

Develop a framework and guidelines for mainstreaming Comprehensive Disaster Management (CDM)⁹, into national and sectoral policies for two of the five priority economic sectors – water, tourism, finance and economic development, agriculture, health and wellness in the following focus countries:

- Antigua and Barbuda
- Dominica
- St Lucia

⁹ The intermediate output is also consistent with Priority Outcome #3 and 3.1 in the Regional Comprehensive Disaster Management (CDM) Strategy and Programming Framework 2014-2024.

The guidelines are to detail inter alia, a) the elements to be considered in integrating CDM, b) the benefits of integrating CDM into the policies and practice within the sector, c) the process to be undertaken to integrate them, and d) the relevant stakeholders and their roles in the process.

The framework and guidelines developed to support the EKACDM Initiative must demonstrate consistency with the DRM objectives of the CDM Strategy 2014-2024. The framework and guidelines should also be applicable for use in the initiative's other target countries (Grenada, Jamaica, Guyana, St Vincent and the Grenadines, Barbados, and Trinidad and Tobago).

2 Workshop Objectives

The specific objectives of the workshop were:

- To assess the level to which CDM is included in national and sectoral plans policies and plans for the five priority sectors. The assessment will include the cross-cutting themes of gender, environment, information and communication technology (ICT) and climate change
- To Identify the challenges with CDM mainstreaming in the five sectors
- To identify actions that can enhance mainstreaming in the five sectors

2.1 Workshop Agenda and Format

The workshop was held over two days from January 23-24, 2017. The workshop programme had two components (i) Technical Presentations and (ii) Working Group Exercises. The programme involved two oral presentations, which were followed by open discussions. There were five group exercises focusing on the assessment of comprehensive disaster management mainstreaming at the national and sectoral level. The detailed Workshop Agenda is provided in Annex 1.

2.2 Workshop Participants

The workshop was attended by eighteen (18) persons in total, including two (2) presenters and facilitators from Rethink Social Development Limited and two (2) representatives from Dominica's national disaster office, the Office of Disaster Management (ODM). There was at least one representative present at the workshop from four of the five target sectors. The tourism sector did not have a representative at the workshop. Registration sheet is provided in Annex 2.

3 Workshop Proceedings

3.1 Opening Session

Welcome Remarks

The workshop was officially opened by Karema Aikens-Mitchell, Disaster Management Specialist Consultant at reThink Social Development Limited. In her opening remarks, Mrs. Aikens-Mitchell highlighted the purpose and primary objectives of the Comprehensive Disaster Mainstreaming workshop and provided an introductory summary of the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Project. She commented on the significance of disaster risk reduction in helping to achieve national and sectoral goals in the Caribbean and brought attention to some of the work being undertaken by the regional disaster organisation, CDEMA, in building capacity across the Caribbean to address disasters and achieve CDM.

Mrs. Aikens-Mitchell welcomed all participants and stressed the value of their participation in the workshop. She encouraged participants to actively engage and participate in the workshop exercises, by contributing to the discourse on comprehensive disaster management integration. Highlighted by Mrs. Aikens-Mitchell was how important the workshop would be in facilitating the collection of key information from stakeholders involved in disaster management in their various sectors, in order to garner a better understanding of the programmes and policies in place and/or proposed to address the impact of disasters at the national and sectoral levels in Dominica. She noted that the information gathered from these exercises would be critical in identifying and addressing any potential data gaps in DM in Dominica and would most importantly serve as a platform to ensure that the guidelines and frameworks to be developed for CDM are both relevant and appropriate for supporting long-term national and sectoral development goals in Dominica.

Mrs. Karen Cuffy from Office of Disaster Management (ODM) brought remarks on behalf of Mr. Fitzroy Pascal, Director of ODM. She welcomed the participants and expressed the timeliness of such a workshop in Dominica. She hoped all attendees would be able to share their disaster management experiences and also gain additional knowledge on comprehensive disaster mainstreaming from the workshop facilitators.

As part of the opening proceedings, all participants were asked to introduce themselves and state their expectations. The following is a summary of expectations identified by participants:

- Learn and gather information about comprehensive disaster management
- Get a better understanding of what is CDM mainstreaming

- Share ideas with other sectoral groups about the approaches and methods being used to manage disasters in Dominica

3.2 Plenary Sessions: Understanding and Assessing Comprehensive Disaster Management Mainstreaming at the National and Sectoral Level

3.2.1 Presentation One: The Case for Mainstreaming Disaster Risk Reduction

Presenter: Ms. Leiska Powell

The presentation on Mainstreaming Disaster Risk Reduction (DRR) explored the concept of mainstreaming and highlighted how to achieve mainstreaming and its benefits. It emphasised the critical elements of DRR mainstreaming and explored why comprehensive disaster management (CDM) mainstreaming is important in sustainable development. Featured as part of the presentation was an overview of the EKACDM Initiative and its primary target outcomes. The presentation addressed the three expected outcomes of the Initiative, in particular outcome 3 (3.1.1) which focuses on comprehensive disaster management mainstreaming into national and sectoral policies. The presenter underscored the need for CDM mainstreaming by using examples of the impacts and costs associated with several disaster occurrences in Dominica; emphasising how developments can result in disasters and how disasters can in turn obstruct developments.

Discussion 1

A brief general discussion on DRR mainstreaming and the existing regional and international frameworks which support comprehensive disaster management was facilitated by Ms. Leiska Powell. Participants were given the opportunity to seek clarification on the DRR mainstreaming concept and the United Nations Development Programme's (UNDP) DRR mainstreaming framework. Participants noted they had no previous knowledge of the DRR framework, but indicated that some level of DRR mainstreaming had been achieved across the various sectors.

3.2.2 Presentation Two: Methodology- Prioritisation and Selection of Priority Sectors

Presenter: Mrs. Karema Aikens-Mitchell

The second presentation in the session focused on the methodological approach to be adopted for assessing the level of integration of CDM at the national and sectoral levels. It addressed and explained the exercises participants would be engaging in as part of the workshop. It was noted that a two tier approach will be used in prioritising the two sectors for CDM mainstreaming. The first tier involves the use of a prioritisation matrix covering the five spheres outlined in the UNDP (GMI) and the second, the use of economic indicators (Gross Domestic Contribution-GDP, sectoral labour force size etc.,). Outlined by the presenter for participants was the weighting, rating and verification methods which would be used to assess the level of CDM mainstreaming in the spheres and determine the two priority sectors for further mainstreaming. An example of the application of weights was demonstrated using the Policy Sphere.

Discussion 2

Discussions focused primarily on the methods for selecting the two priority sectors. Participants sought clarification on the weights and rating methods which would be utilised and noted they may not have all the necessary information during the session to give a fair account of the work being done in their respective sectors. Delegates also expressed concerns about the general limited knowledge participants had on the DRR mainstreaming framework and how that would perhaps impact the outcome of the workshop results. It was however noted that the process to support the exercise activities would be integrative and throughout the working group sessions, participants would be able to seek clarification and guidance in completing the required instruments.

4 Working Group Sessions

Several working group sessions were held over the two days of the workshop. The sessions predominantly involved participants working in groups based on sectoral affiliation as dictated by the requisite tasks to be completed, except for the first working group session which involved all participants.

4.1 Working Group Session 1- CDM Integration at National Level

A joint working session with all workshop participants was convened to undertake Exercise 1: Assessment of CDM integration at the national level. The participants were asked to share their knowledge about the regulatory, policy and institutional framework in place at the national level to support comprehensive disaster management. They were also asked to provide information on the activities and tasks being undertaken to ensure the inclusion of disaster

management considerations in all aspects of the decision-making process, the stakeholders involved and the initiatives which promotes advocacy and education.

Output: Completed data collection instrument (sphere matrix)

4.2 Working Group Session 2–CDM Integration at Sectoral Level

Recognising the primary aim of the workshop as a forum to gather information on DRR mainstreaming at the sectoral level, working groups were organised according to sectors. The groups were tasked with undertaking Exercise 2: Assessment of CDM Integration at the Sectoral Level. The groups worked on completing the data collection instrument by applying ratings and comments linked to the mainstreaming domain and its sub-elements. Internal group discourse and guidance on the application of ratings were facilitated by Ms. Powell and Mrs. Aikens-Mitchell. The groups discussed:

- Policies, strategies and regulations in place to address sectoral CDM Mainstreaming
- Institutional and administrative platform in place to support mainstreaming
- Stakeholders involved in mainstreaming and level of understanding of mainstreaming requirements
- Tools, programmes and plans etc., in place to further support mainstreaming efforts

Output: Completed Data Collection Instrument (Sphere Matrix)

4.3 Working Group Session 3- Visioning and Goal Setting

Participants worked individually and then as a group to craft a vision for their sector related to CDM mainstreaming. Discussed by the group were the primary goals and objectives the sector sought to meet and the expected outcome or end result of the strategies, plans and programmes put in place to address CDM mainstreaming.

Output: Vision statement for the sector on Disaster Risk Reduction

4.4 Working Group Session 4: SCORE Analysis

The groups worked to identify their main areas of strengths and weaknesses, by listing an inventory of the resources available to them currently and noting the capacity and resource deficiencies currently affecting their productivity output. Discussed by the groups were their roles, existing capacities, needs and what opportunities existed to address deficiencies. Participants then used the information compiled to articulate the rewards/results likely to be garnered via the opportunities which existed.

Output: Description of the resources and tools available in each sector to support CDM mainstreaming, the challenges to be addressed and the opportunities available to achieve tangible results in disaster risk reduction efforts.

4.5 Working Group Session 5: Stakeholder Analysis

The groups worked on identifying all stakeholders who were relevant, interested and/or had power over their work. In working, the group sought to arrive at a final output which was to prioritise their stakeholders and determine/assess if the engagement methods being used currently to communicate with their main stakeholders were indeed effective or required change to better facilitate the transmission of key messages.

Output: Comprehensive list of local, national, regional and international sectoral stakeholders

5 Key Results and Outcomes

The main observations and conclusions made by the Workshop's working groups and at its round table are as follows:

- The working groups agreed that comprehensive disaster management mainstreaming in national and sectoral policies, plans and programmes is important in safeguarding and protecting Dominica's long-term social and economic future. Participants concluded that CDM mainstreaming was urgently required as part of a broader strategy to enhance local technical, analytical and institutional capacity for disaster risk reduction at the sectoral level in Dominica. It was recommended that sector stakeholders participate in trainings and workshops focused on Disaster Risk Reduction and not rely solely on the national disaster organisations to address disaster management at all levels.
- The 'buy-in' of decision-makers was seen by attendees as being the most critical step in making disaster management a priority issue at the national and sectoral level. Suggestions were made for plans related to disaster management to be delivered in a more comprehensive manner involving representatives of all sectors. The use of risk data and other types of data to support mainstreaming effort was seen as being crucial in presenting the real impact of disasters and getting support for efforts aimed at integrating disaster risk reduction strategies at all levels.
- Participants suggested that the data collection instruments used at the workshops be brought to other key stakeholders within their respective sector to discuss the ratings

which had been assigned for the sector during the workshop exercises. It was further suggested that the lessons learnt should be used to strengthen existing frameworks that maybe in place for disaster management in the various sectors.

- The working groups recommended that the mainstreaming data collection instruments used in the workshop, be modified if necessary, and used in their own internal processes to assess how well the sectors are achieving comprehensive disaster management mainstreaming.

6 On site Evaluation of Workshop

To receive feedback from participants and assess the Workshop, a rapid feedback session was conducted during the closing segment of the workshop and a workshop evaluation questionnaire was also given to participants on the last day of the event.

The following feedback was provided by participants:

- Facilitators were knowledgeable and were able to facilitate substantive discourse on the topic of disaster risk reduction and comprehensive disaster management mainstreaming
- Activities and exercises were interactive and allowed for participants to share their ideas and experiences. The use/completion of workshop materials helped participants to identify areas of weaknesses in their sectors and noted ways to potentially address issues which have been identified
- Communication surrounding the venue change for the workshop on the first day could have been better handled to avoid the delays experienced on day 1 of the event.
- Communication between sectoral stakeholders and local organisation offering assistance to the workshop organisers could have been better to facilitate a greater level of local support and attendance.

Workshop Evaluation Questionnaire Administration

A total of fourteen (14) persons completed the workshop evaluation questionnaire. The results are presented below.

Section 1: Content

Category	Strongly	Agree	Undecided	Disagree	Strongly
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	Agree				Disagree
Subject matter was adequately covered	43%	36%	14%	-	-
Content was suitable for my background and experience	28%	64%	-	7%	-
Participants were allowed to take an active part	93%	-	7%	-	-
The workshop objectives were met	43%	43%	14%	-	-
The subject matter was relevant to my job function	36%	36%	21%	7%	-

Section II: Organisation and Presentation

Organisation

Category	Excellent	Very Good	Good	Fair	Poor
Facilitation Method	64%	36%	-	-	-
Meeting Space	50%	50%	-	-	-
Overall Organisation	28%	64%	7%	-	-

Presentation

Category	Excellent	Very Good	Good	Fair	Poor
Content	43%	43%	7%	-	-
Delivery	57%	36%	7%	-	-
Presentation	28%	36%	21%	7%	-

Overall Workshop Rating: Excellent (21%), Very Good (72%), Good (7%).

Summary Recommendations for Improving Workshop

- Additional plenary sessions and presentations on DRR
- Improvement of communication between local stakeholder groups and workshop organisers
- Workshop should have been held over a longer period
- All sectors/industries should be allowed to participate in DRR workshops/forums

7 Moving Forward (Next Steps)

Following the completion of the analysis of the workshop data, several validation exercises will be conducted with participants from the workshop and other relevant stakeholders from the priority sectors in Dominica. The validation exercises will include the circulation of the preliminary results showing the assigned weight score for each of the priority sectors. Participants will be asked to review previous ratings applied to ensure they are correct, and include ratings for categories that are missing. The results for all sectors will be shared with all participants.

The second phase of validation will take place in the form of a workshop. Participants will be invited to discuss and share their views/comments on the two sectors which have been selected as the priority sectors based on the data which has been collected and analysed and also on the draft policy frameworks and guidelines which has been developed to guide CDM mainstreaming. The workshop is scheduled for May 2017.

8 Conclusion

Mrs. Karema Aikens-Mitchell concluded the workshop by thanking all participants for their valuable contributions. She encouraged participants to share the information and resources gathered from the workshop with other sectoral stakeholders to move the disaster risk reduction agenda forward. Sector representatives were welcomed to share any additional information related to disaster risk reduction and comprehensive disaster management mainstreaming for their sectors.

The workshop was closed at 3:45p.m. on Tuesday, January 24, 2017.

Annex 1: Workshop Agenda



THE UNIVERSITY OF THE WEST INDIES



Workshop on Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Sectors January, 2017 Roseau, Dominica

Workshop Objectives

- To assess the level to which CDM is included in national and sectoral plans policies and plans for the five priority sectors. The assessment will include the cross-cutting themes of gender, environment, information and communication technology (ICT) and climate change
- To Identify the challenges with CDM mainstreaming in the five priority sectors
- To identify actions that can enhance mainstreaming in the five priority sectors

AGENDA

Day 1- January 23, 2017

8:30- 9:00	Registration
9:00 – 9:05	Welcome – Karema Aikens-Mitchell
9:05 – 9:10	Prayer
9:05 – 9:30	Participant Introduction and Expectations
9:30 – 9:35	Remarks – Representative, ODM
9:35 – 10:00	Overview of EKACDM Project and Mainstreaming Concept – Ms. Leiska Powell
10:00 – 10:30	COFFEE BREAK.....
10:30 – 11:00	Workshop Objective & Overview of Assessment Methodology- Ms. Karema Aikens-Mitchell
11:00 – 12:00	Exercise 1 – Assessment of CDM integration at national level

12:00 – 1:00	Exercise 2 - Assessment of CDM integration at Sector level
1:00 – 2:00	LUNCH.....
2:00 – 3:00	Exercise 2 – Continued
3:00 – 3:30	Exercise 3 - Visioning and Goal Setting (by sector)
3:30 – 4:00	Wrap up and Closing

DAY 2- January 24, 2017

8:30 – 9:00	Review and re-cap of Day 1 – Karema Aikens-Mitchell
9:00 – 10:30	Exercise 3 – SCORE (Strengths, Challenges, Opportunities, Results, Expectations) Analysis - (by sector)
10:30 – 11:00	COFFEE BREAK.....
11:00 – 12:30	Stakeholder Analysis
12:30 – 1:30	Recommendations of Tools and Trainings relevant for mainstreaming
1:30 – 2:00	Wrap up and Closing
2:00-3:00	LUNCH.....



Workshop on the Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Priority Sectors

Workshop Proceedings and Report

January 26–27, 2017, St John's, Antigua

February 2017



Acknowledgement

The organisers of the workshop would like to acknowledge the support provided by the Disaster Risk Reduction Centre at the University of the West Indies Mona and the National Office of Disaster Services in Antigua and Barbuda which allowed for the hosting and execution of the workshop.

9 Introduction & Background

A project workshop entitled ‘Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Sectors’ was organised by reThink Social Development Limited in association with the University of the West Indies Disaster Risk Reduction Centre and Antigua and Barbuda’s National Office of Disaster Services (NODS) from January 26-27, 2017 at The Conference Room of National Office of Disaster Services, St John’s, Antigua and Barbuda. This report describes the workshop objectives, background, preparations and participants, and summarises the proceedings, discussions and outcomes.

The entitled ‘Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Sectors’ project is part of the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Programme.

In 2013, the University of the West Indies Disaster Risk Reduction Centre (DRRC) of the Institute for Sustainable Development (ISD) launched the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Programme. The EKACDM, a five year initiative, aims to *“establish an effective mechanism for managing and sharing Comprehensive Disaster Management (CDM) knowledge that is used for decision-making in the public, private and voluntary sectors”* in the Caribbean. The programme, which is funded by the Government of Canada through Foreign Affairs, Trade and Development Canada (DFATD), has as its main priority the successful implementation of the CARICOM Enhanced CDM Strategy and Framework (2007-2012). The EKACDM Initiative was developed primarily to achieve outcome 2.1 and 2.2 under CDM Strategy Framework’s (2007-2012 Priority Outcome #2.

The framework and guidelines for mainstreaming CDM project is being undertaken under Output 3.1.1 of the EKACDM Initiative. Its main purpose is to:

Develop a framework and guidelines for mainstreaming Comprehensive Disaster Management (CDM)¹⁰, into national and sectoral policies for two of the five priority economic sectors – water, tourism, finance and economic development, agriculture, health and wellness in the following focus countries:

- Antigua and Barbuda
- Dominica
- St Lucia

¹⁰ The intermediate output is also consistent with Priority Outcome #3 and 3.1 in the Regional Comprehensive Disaster Management (CDM) Strategy and Programming Framework 2014-2024.

The guidelines are to detail inter alia, a) the elements to be considered in integrating CDM, b) the benefits of integrating CDM into the policies and practice within the sector, c) the process to be undertaken to integrate them, and d) the relevant stakeholders and their roles in the process.

The framework and guidelines developed to support the EKACDM Initiative must demonstrate consistency with the DRM objectives of the CDM Strategy 2014-2024. The framework and guidelines should also be applicable for use in the initiative's other target countries (Grenada, Jamaica, Guyana, St Vincent and the Grenadines, Barbados, and Trinidad and Tobago).

10 Workshop Objectives

The specific objectives of the workshop were:

- To assess the level to which CDM is included in national and sectoral plans policies and plans for the five priority sectors. The assessment will include the cross-cutting themes of gender, environment, information and communication technology (ICT) and climate change
- To Identify the challenges with CDM mainstreaming in the five sectors
- To identify actions that can enhance mainstreaming in the five sectors

10.1 Workshop Agenda and Format

The workshop was held over two days from January 26-27, 2017. The workshop programme had two components (i) Technical Presentations and (ii) Working Group Exercises. The programme involved two oral presentations, which were followed by open discussions. There were five group exercises focusing on the assessment of comprehensive disaster management mainstreaming at the national and sectoral level. The detailed Workshop Agenda is provided in Annex 1.

10.2 Workshop Participants

The workshop was attended by twenty-five (25) persons, including two (2) presenters and facilitators from Rethink Social Development Limited and five (5) representatives from the National Office of Disaster Services (NODS). There was at least one representative present at the workshop from four of the five target sectors. The tourism sector did not have a representative at the workshop. The education sector, which is considered a priority sector by the NODS, had representatives at the workshop. Registration sheet is provided in Annex 2.

11 Workshop Proceedings

11.1 Opening Session

Welcome Remarks

The workshop was officially opened by Karema Aikens-Mitchell, Disaster Management Specialist Consultant at reThink Social Development Limited. In her opening remarks, Mrs. Aikens-Mitchell highlighted the purpose and primary objectives of the Comprehensive Disaster Mainstreaming workshop and provided an introductory summary of the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Project. She commented on the significance of disaster risk reduction in helping to achieve national and sectoral goals in the Caribbean and brought attention to some of the work being undertaken by the regional disaster organisation, CDEMA, in building capacity across the Caribbean to address disasters and achieve CDM.

Mrs. Aikens-Mitchell welcomed all participants and stressed the value of their participation in the workshop. She encouraged participants to actively engage and participate in the workshop exercises, by contributing to the discourse on comprehensive disaster management integration. Highlighted by Mrs. Aikens-Mitchell was how important the workshop would be in facilitating the collection of key information from stakeholders involved in disaster management in their various sectors, in order to garner a better understanding of the programmes and policies in place and/or proposed to address the impact of disasters at the national and sectoral levels in Antigua and Barbuda. She noted that the information gathered from these exercises would be critical in identifying and addressing any potential data gaps in CDM in Antigua and Barbuda and would most importantly serve as a platform to ensure that the guidelines and frameworks to be developed for CDM are both relevant and appropriate for supporting long-term national and sectoral development goals in Antigua and Barbuda.

Mr. Philmore Mullin, Director of the National Office of Disaster Services (NODS) brought remarks on behalf of the local disaster management organisations. He welcomed the participants and encouraged attendees to use the workshop as a platform to share their own sector experiences in managing disasters. He also welcomed participants to share any useful and relevant information gathered from the workshop with their colleagues. This Mr. Mullin emphasised would help in strengthening a multi-sector response to disaster management in Antigua and Barbuda.

As part of the opening proceedings, all participants were asked to introduce themselves and state their expectations. The following expectations were identified by participants:

- Learn more about national disaster programmes and plans

- Gather a better understanding of disaster risk reduction and disaster management
- Garner a better understanding of what is comprehensive disaster management mainstreaming
- Share ideas with other sectoral groups about the approaches and methods being used to manage disasters

11.2 Plenary Sessions: Understanding and Assessing Comprehensive Disaster Management Mainstreaming at the National and Sectoral Level

11.2.1 Presentation One: The Case for Mainstreaming Disaster Risk Reduction

Presenter: Ms. Leiska Powell

The presentation on Mainstreaming Disaster Risk Reduction (DRR) explored the concept of mainstreaming and highlighted how to achieve mainstreaming and its benefits. It emphasised the critical elements of DRR mainstreaming and explored why comprehensive disaster management (CDM) mainstreaming is important in sustainable development. Featured as part of the presentation was an overview of the EKACDM Initiative and its primary target outcomes. The presentation addressed the three expected outcomes of the Initiative, in particular outcome 3 (3.1.1) which focuses on comprehensive disaster management mainstreaming into national and sectoral policies. The presenter underscored the need for CDM mainstreaming by using examples of the impacts and costs associated with several disaster occurrences in Antigua; emphasising how developments can result in disasters and how disasters can in turn obstruct developments.

Discussion 1

A brief general discussion on DRR mainstreaming and the existing regional and international frameworks which support comprehensive disaster management was facilitated by Ms. Leiska Powell. Participants were given the opportunity to seek clarification on the DRR mainstreaming concept and the United Nations Development Programme's (UNDP) DRR mainstreaming framework. Participants stated that they were keen to gather more information about disaster risk reduction and disaster management mainstreaming in sector policies and programmes. The general consensus among sectoral attendees was the limited experience many of them had in disaster management and welcomed the opportunity to learn the approaches which they can adopt in their work to advance the disaster management agenda.

11.2.2 Presentation Two: Methodology- Prioritisation and Selection of Priority Sectors

Presenter: Mrs. Karema Aikens-Mitchell

The second presentation in the session focused on the methodological approach to be adopted for assessing the level of integration of CDM at the national and sectoral levels. It addressed and explained the exercises participants would be engaging in as part of the workshop. It was noted that a two tier approach will be used in prioritising the two sectors for CDM mainstreaming. The first tier involves the use of a prioritisation matrix covering the five spheres outlined in the UNDP (GMI) and the second, the use of economic indicators (Gross Domestic Contribution-GDP, sectoral labour force size etc.,). Outlined by the presenter for participants was the weighting, rating and verification methods which would be used to assess the level of CDM mainstreaming in the spheres and determine the two priority sectors for further mainstreaming. An example of the application of weights was demonstrated using the Policy Sphere.

Discussion 2

Discussions focused primarily on the methods for selecting the two priority sectors. Participants sought clarification on the weights and rating methods which would be utilised and noted they may not have all the necessary information during the session to give a fair account of the work being done in their respective sectors. Delegates also expressed concerns about the general limited knowledge participants had on the DRR mainstreaming framework and how that would perhaps impact the outcome of the workshop results. It was however noted that the process to support the exercise activities would be integrative and throughout the working group sessions, participants would be able to seek clarification and guidance in completing the required instruments.

12 Working Group Sessions

Several working group sessions were held over the two days of the workshop. The sessions predominantly involved participants working in groups based on sectoral affiliation as dictated by the requisite tasks to be completed, except for the first working group session which involved all participants.

12.1 Working Group Session 1- CDM Integration at National Level

A joint working session with all workshop participants was convened to undertake Exercise 1: Assessment of CDM integration at the national level. The participants were asked to share their knowledge about the regulatory, policy and institutional framework in place at the national level to support comprehensive disaster management. They were also asked to provide information on the activities and tasks being undertaken to ensure the inclusion of disaster management considerations in all aspects of the decision-making process, the stakeholders involved and the initiatives which promotes advocacy and education.

Output: Completed data collection instrument (sphere matrix)

12.2 Working Group Session 2–CDM Integration at Sectoral Level

Recognising the primary aim of the workshop as a forum to gather information on DRR mainstreaming at the sectoral level, working groups were organised according to sectors. The groups were tasked with undertaking Exercise 2: Assessment of CDM Integration at the Sectoral Level. The groups worked on completing the data collection instrument by applying ratings and comments linked to the mainstreaming domain and its sub-elements. Internal group discourse and guidance on the application of ratings were facilitated by Ms. Powell and Mrs. Aikens-Mitchell. The groups discussed:

- Policies, strategies and regulations in place to address sectoral CDM Mainstreaming
- Institutional and administrative platform in place to support mainstreaming
- Stakeholders involved in mainstreaming and level of understanding of mainstreaming requirements
- Tools, programmes and plans etc., in place to further support mainstreaming efforts

Output: Completed Data Collection Instrument (Sphere Matrix)

12.3 Working Group Session 3- Visioning and Goal Setting

Participants worked individually and then as a group to craft a vision for their sector related to CDM mainstreaming. Discussed by the group were the primary goals and objectives the sector sought to meet and the expected outcome or end result of the strategies, plans and programmes put in place to address CDM mainstreaming.

Output: Vision statement for the sector on Disaster Risk Reduction

12.4 Working Group Session 4: SCORE Analysis

The groups worked to identify their main areas of strengths and weaknesses, by listing an inventory of the resources available to them currently and noting the capacity and resource deficiencies currently affecting their productivity output. Discussed by the groups were their roles, existing capacities, needs and what opportunities existed to address deficiencies. Participants then used the information compiled to articulate the rewards/results likely to be garnered via the opportunities which existed.

Output: Description of the resources and tools available in each sector to support CDM mainstreaming, the challenges to be addressed and the opportunities available to achieve tangible results in disaster risk reduction efforts.

12.5 Working Group Session 5: Stakeholder Analysis

The groups worked on identifying all stakeholders who were relevant, interested and/or had power over their work. In working, the group sought to arrive at a final output which was to prioritise their stakeholders and determine/assess if the engagement methods being used currently to communicate with their main stakeholders were indeed effective or required change to better facilitate the transmission of key messages.

Output: Comprehensive list of local, national, regional and international sectoral stakeholders

13 Key Results and Outcomes

The main observations and conclusions made by the Workshop's working groups and at its round table are as follows:

- Participants agreed that sector representatives needed to engage the National Office of Disaster Services to learn more about the national policies, programmes and plans in place to deal with disasters in Antigua and Barbuda. It was also recommended that sectors take a more pro-active approach in learning about disaster management and ensuring workers are properly trained to response to disasters which impact their respective industry.
- The working groups agreed that comprehensive disaster management mainstreaming in national and sectoral policies, plans and programmes is important in safeguarding and protecting Antigua and Barbuda's long-term social and economic future. Participants concluded that the workshop was timely and the subject matter was relevant to their work and long-term sector goals. They however noted that enough is not being done to sensitise sector representatives about their role in comprehensive disaster

management. Many saw disaster management as a 'national issue' being addressed by NODS. It was recommended that NODS host a series of disaster management workshops and training sessions for sector representatives to build on the platform created through the CDM mainstreaming workshop.

- The working groups recommended that the mainstreaming data collection instruments used in the workshop, be modified if necessary, and used in their own internal processes to assess how well the sectors are achieving comprehensive disaster management mainstreaming.

14 On site Evaluation of Workshop

To receive feedback from participants and assess the Workshop, a rapid feedback session was conducted during the closing segment of the workshop and a workshop evaluation questionnaire was also given to participants on the last day of the event.

The following feedback was provided by participants:

- The workshop was informative and the facilitators were knowledgeable, and able to facilitate open discourse on the topic of disaster risk reduction and comprehensive disaster management mainstreaming
- The workshop structure was quite flexible and allowed for open interaction with facilitators and participants
- The workshop could have benefited from more presentations which elaborated further on disaster risk reduction mainstreaming
- Microsoft power-point presentations could have been used to provide additional guidance on the completion of workshop exercises
- The data collection matrix could have been better simplified for participants. It was difficult to complete without one on one guidance from facilitators.
- The workshop did not benefit from input from all stakeholders. There were no representatives from Barbuda or the Tourism sector at the workshop.
- Not all representatives from the sectors had sufficient knowledge or expertise in disaster management to provide a comprehensive sector perspective. The workshop

invitation should have provided more specific information on the level of representation required from each sector.

Workshop Evaluation Questionnaire Administration

A total of sixteen (16) persons completed the workshop evaluation questionnaire. The results are presented below.

Section 1: Content

Category	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Subject matter was adequately covered	-	62.5%	31%	6%	-
Content was suitable for my background and experience	-	56%	38%	6%	-
Participants were allowed to take an active part	44%	50%	6%	-	-
The workshop objectives were met	25%	25%	44%	6%	-
The subject matter was relevant to my job function	12.5%	50%	31%	6.5%	-

Section II: Organisation and Presentation

Organisation

Category	Excellent	Very Good	Good	Fair	Poor
Facilitation Method	12.5%	62.5%	12.5%	12.5%	-
Meeting Space	31%	69%	-	-	-
Overall Organisation	25%	50%	6%	19%	-

Presentation

Category	Excellent	Very Good	Good	Fair	Poor
Content	31%	44%	6%	19%	-
Delivery	19%	56%	6%	19%	-
Presentation	6%	38%	31%	25%	-

Overall Workshop rating: Excellent (6%), Very Good (44%), Good (25%), Fair (25%).

Summary recommendations for improving workshop

- Increase the amount of time allotted to covering background information on the subject matter
- Presentations should offer more in-depth coverage of the subject matter
- Additional plenary sessions and presentations on DRR
- Facilitators should increase the amount of time spent providing guidance to workshop participants
- Host workshops on the following days: Tuesday, Wednesday and/or Thursday
- Plan workshops in collaboration with local organisations
- All sectors should be included in a workshop which focuses on disaster management
- Workshops should target the appropriate stakeholders based on the subject matter

15 Moving Forward and Actions to be taken

Following the completion of the analysis of the workshop data, several validation exercises will be conducted with participants from the workshop and other relevant stakeholders from the priority sectors in Antigua and Barbuda. The validation exercise will include the circulation of the preliminary results showing the assigned weight score for each of the priority sectors. Participants will be asked to review previous ratings applied to ensure they are correct, and include ratings for categories that are missing. The results for all sectors will be shared with all participants.

The second phase of validation will take place in the form of a workshop. Participants will be invited to discuss and share their views/comments on the two sectors which have been selected as the priority sectors based on the data which has been collected and analysed and also on the draft policy frameworks and guidelines which has been developed to guide CDM mainstreaming. The workshop is scheduled for May 2017.

16 Conclusion

Mrs. Karema Aikens-Mitchell concluded the workshop by thanking all participants for their valuable contributions. She encouraged participants to share the information and resources gathered from the workshop with other sectoral stakeholders to move the disaster risk reduction agenda forward. Sector representatives were welcomed to share any additional information related to disaster risk reduction and comprehensive disaster management mainstreaming for their sectors.

The workshop was closed at 3:05p.m. on Friday, January 27, 2017.

Annex 1: Workshop Agenda



THE UNIVERSITY OF THE WEST INDIES



Workshop on Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Sectors January, 2017 St John's, Antigua

Workshop Objectives

- To assess the level to which CDM is included in national and sectoral plans policies and plans for the five priority sectors. The assessment will include the cross-cutting themes of gender, environment, information and communication technology (ICT) and climate change
- To Identify the challenges with CDM mainstreaming in the five priority sectors
- To identify actions that can enhance mainstreaming in the five priority sectors

AGENDA

Day 1- January 26, 2017

8:30- 9:00	Registration
9:00 – 9:05	Welcome – Karema Aikens-Mitchell
9:05 – 9:10	Prayer
9:05 – 9:30	Participant Introduction and Expectations
9: 30 – 9:35	Remarks – Mr. Philmore Mullin, Director NODS
9:35 – 10:00	Overview of EKACDM Project and Mainstreaming Concept – Ms. Leiska Powell
10:00 – 10:30	COFFEE BREAK.....
10:30 – 11:00	Workshop Objective & Overview of Assessment Methodology- Ms. Karema Aikens-Mitchell

11:00 – 12:00	Exercise 1 – Assessment of CDM integration at national level
12:00 – 1:00	Exercise 2 - Assessment of CDM integration at Sector level
1:00 – 2:00	LUNCH.....
2:00 – 3:00	Exercise 2 – Continued
3:00 – 3:30	Exercise 3 - Visioning and Goal Setting (by sector)
3:30 – 4:00	Wrap up and Closing

DAY 2- January 27, 2017

8:30 – 9:00	Review and re-cap of Day 1 – Karema Aikens-Mitchell
9:00 – 10:30	Exercise 3 – SCORE (Strengths, Challenges, Opportunities, Results, Expectations) Analysis - (by sector)
10:30 – 11:00	COFFEE BREAK.....
11:00 – 12:30	Stakeholder Analysis
12:30 – 1:30	Recommendations of Tools and Trainings relevant for mainstreaming
1:30 – 2:00	Wrap up and Closing
2:00-3:00	LUNCH.....



Workshop on the Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Priority Sectors

Workshop Proceedings and Report

January 30-31 2017, Castries, St Lucia

February 2017



Acknowledgement

The organisers of the workshop would like to acknowledge the support provided by the Disaster Risk Reduction Centre at the University of the West Indies Mona and the National Emergency Management Organisation (NEMO) in St Lucia which allowed for the hosting and execution of the workshop.

17 Introduction & Background

A project workshop entitled ‘Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Sectors’ was organised by reThink Social Development Limited in association with the University of the West Indies Disaster Risk Reduction Centre and St Lucia’s National Emergency Management Organisation (NEMO) from January 30-31, 2017 at the Blu Hotel, Gros Islet, St Lucia. This report describes the workshop objectives, background, preparations and participants, and summarises the proceedings, discussions and outcomes.

The entitled ‘Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Sectors’ project is part of the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Programme.

In 2013, the University of the West Indies Disaster Risk Reduction Centre (DRRC) of the Institute for Sustainable Development (ISD) launched the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Programme. The EKACDM, a five year initiative, aims to *“establish an effective mechanism for managing and sharing Comprehensive Disaster Management (CDM) knowledge that is used for decision-making in the public, private and voluntary sectors”* in the Caribbean. The programme, which is funded by the Government of Canada through Foreign Affairs, Trade and Development Canada (DFATD), has as its main priority the successful implementation of the CARICOM Enhanced CDM Strategy and Framework (2007-2012). The EKACDM Initiative was developed primarily to achieve outcome 2.1 and 2.2 under CDM Strategy Framework’s (2007-2012 Priority Outcome #2).

The framework and guidelines for mainstreaming CDM project is being undertaken under Output 3.1.1 of the EKACDM Initiative. Its main purpose is to:

Develop a framework and guidelines for mainstreaming Comprehensive Disaster Management (CDM)¹¹, into national and sectoral policies for two of the five priority economic sectors – water, tourism, finance and economic development, agriculture, health and wellness in the following focus countries:

- Antigua and Barbuda
- Dominica
- St Lucia

¹¹ The intermediate output is also consistent with Priority Outcome #3 and 3.1 in the Regional Comprehensive Disaster Management (CDM) Strategy and Programming Framework 2014-2024.

The guidelines are to detail inter alia, a) the elements to be considered in integrating CDM, b) the benefits of integrating CDM into the policies and practice within the sector, c) the process to be undertaken to integrate them, and d) the relevant stakeholders and their roles in the process.

The framework and guidelines developed to support the EKACDM Initiative must demonstrate consistency with the DRM objectives of the CDM Strategy 2014-2024. The framework and guidelines should also be applicable for use in the initiative's other target countries (Grenada, Jamaica, Guyana, St Vincent and the Grenadines, Barbados, and Trinidad and Tobago).

18 Workshop Objectives

The specific objectives of the workshop were:

- To assess the level to which CDM is included in national and sectoral plans policies and plans for the five priority sectors. The assessment will include the cross-cutting themes of gender, environment, information and communication technology (ICT) and climate change
- To Identify the challenges with CDM mainstreaming in the five sectors
- To identify actions that can enhance mainstreaming in the five sectors

18.1 Workshop Agenda and Format

The workshop was held over two days from January 30-31, 2017. The workshop programme had two components (i) Technical Presentations and (ii) Working Group Exercises. The programme involved two oral presentations, which were followed by open discussions. There were five group exercises focusing on the assessment of comprehensive disaster management mainstreaming at the national and sectoral level. The detailed Workshop Agenda is provided in Annex 1.

18.2 Workshop Participants

The workshop was attended by twenty-two (22) persons in total, including two (2) presenters and facilitators from Rethink Social Development Limited and five (5) representatives from National Emergency Management Organisation (NEMO). There was at least one representative present at the workshop from four of the five target sectors. The Finance sector did not have a representative at the workshop. The education sector, which is considered a priority sector by NEMO, had representatives at the workshop. Registration sheet is provided in Annex 2.

19 Workshop Proceedings

19.1 Opening Session

Welcome Remarks

The workshop was officially opened by Karema Aikens-Mitchell, Disaster Management Specialist Consultant at reThink Social Development Limited. In her opening remarks, Mrs. Aikens-Mitchell highlighted the purpose and primary objectives of the Comprehensive Disaster Mainstreaming workshop and provided an introductory summary of the Enhancing Knowledge and Application of Comprehensive Disaster Management (EKACDM) Project. She commented on the significance of disaster risk reduction in helping to achieve national and sectoral goals in the Caribbean and brought attention to some of the work being undertaken by the regional disaster organisation, CDEMA, in building capacity across the Caribbean to address disasters and achieve CDM.

Mrs. Aikens-Mitchell welcomed all participants and stressed the value of their participation in the workshop. She encouraged participants to actively engage and participate in the workshop exercises, by contributing to the discourse on comprehensive disaster management integration. Highlighted by Mrs. Aikens-Mitchell was how important the workshop would be in facilitating the collection of key information from stakeholders involved in disaster management in their various sectors, in order to garner a better understanding of the programmes and policies in place and/or proposed to address the impact of disasters at the national and sectoral levels in St Lucia. She noted that the information gathered from these exercises would be critical in identifying and addressing any potential data gaps in DM in St Lucia and would most importantly serve as a platform to ensure that the guidelines and frameworks to be developed for CDM are both relevant and appropriate for supporting long-term national and sectoral development goals in St Lucia.

Mrs. Velda Joseph Director of the National Emergency Management Organisation (NEMO) brought remarks on behalf of the local disaster management organisations. She welcomed the participants and noted that the objectives and cross cutting themes for the workshop were consistent with the goals to be achieved by the work programme developed by NEMO to achieve disaster mainstreaming in St Lucia. She emphasised how critical the integration of disaster risk reduction is at all levels to avert social and economic losses as a result of disasters. Participants were encouraged to share their experiences and ideas through discourse and in the process acquire additional information about comprehensive disaster management and the importance of mainstreaming.

As part of the opening proceedings, all participants were asked to introduce themselves and state their expectations. The following expectations were identified by participants:

- Garner a better understanding of disaster risk reduction and disaster management
- Garner a better understanding of what is Disaster mainstreaming
- Share ideas with other sectoral groups about the approaches and methods being used to manage disasters

19.2 Plenary Sessions: Understanding and Assessing Comprehensive Disaster Management Mainstreaming at the National and Sectoral Level

19.2.1 Presentation One: The Case for Mainstreaming Disaster Risk Reduction

Presenter: Ms. Leiska Powell

The presentation on Mainstreaming Disaster Risk Reduction (DRR) explored the concept of mainstreaming and highlighted how to achieve mainstreaming and its benefits. It emphasised the critical elements of DRR mainstreaming and explored why comprehensive disaster management (CDM) mainstreaming is important in sustainable development. Featured as part of the presentation was an overview of the EKACDM Initiative and its primary target outcomes. The presentation addressed the three expected outcomes of the Initiative, in particular outcome 3 (3.1.1) which focuses on comprehensive disaster management mainstreaming into national and sectoral policies. The presenter underscored the need for CDM mainstreaming by using examples of the impacts and costs associated with several disaster occurrences in St Lucia; emphasising how developments can result in disasters and how disasters can in turn obstruct developments.

Discussion 1

A brief general discussion on DRR mainstreaming and the existing regional and international frameworks which support comprehensive disaster management was facilitated by Ms. Leiska Powell. Participants were given the opportunity to seek clarification on the DRR mainstreaming concept and the United Nations Development Programme's (UNDP) DRR mainstreaming framework. It was revealed that several participants were familiar with the DRR framework, however these representatives worked with the national disaster organisation. Participants expressed their general interest in learning more about how to integrate the concepts of the DRR framework into their own internal processes aimed at DRR.

19.2.2 Presentation Two: Methodology- Prioritisation and Selection of Priority Sectors

Presenter: Mrs. Karema Aikens-Mitchell

The second presentation in the session focused on the methodological approach to be adopted for assessing the level of integration of CDM at the national and sectoral levels. It addressed and explained the exercises participants would be engaging in as part of the workshop. It was noted that a two tier approach will be used in prioritising the two sectors for CDM mainstreaming. The first tier involves the use of a prioritisation matrix covering the five spheres outlined in the UNDP (GMI) and the second, the use of economic indicators (Gross Domestic Contribution-GDP, sectoral labour force size etc.,). Outlined by the presenter for participants was the weighting, rating and verification methods which would be used to assess the level of CDM mainstreaming in the spheres and determine the two priority sectors for further mainstreaming. An example of the application of weights was demonstrated using the Policy Sphere.

Discussion 2

Discussions focused primarily on the methods for selecting the two priority sectors. Participants sought clarification on the weights and rating methods which would be utilised. The facilitators indicated that the exercise activities would be integrative and throughout the working group sessions, participants would be able to seek clarification and guidance in completing the required instruments.

20 Working Group Sessions

Several working group sessions were held over the two days of the workshop. The sessions predominantly involved participants working in groups based on sectoral affiliation as dictated by the requisite tasks to be completed, except for the first working group session which involved all participants.

20.1 Working Group Session 1- CDM Integration at National Level

A joint working session with all workshop participants was convened to undertake Exercise 1: Assessment of CDM integration at the national level. The participants were asked to share their knowledge about the regulatory, policy and institutional framework in place at the national level to support comprehensive disaster management. They were also asked to provide

information on the activities and tasks being undertaken to ensure the inclusion of disaster management considerations in all aspects of the decision-making process, the stakeholders involved and the initiatives which promotes advocacy and education.

Output: Completed data collection instrument (sphere matrix)

20.2 Working Group Session 2–CDM Integration at Sectoral Level

Recognising the primary aim of the workshop as a forum to gather information on DRR mainstreaming at the sectoral level, working groups were organised according to sectors. The groups were tasked with undertaking Exercise 2: Assessment of CDM Integration at the Sectoral Level. The groups worked on completing the data collection instrument by applying ratings and comments linked to the mainstreaming domain and its sub-elements. Internal group discourse and guidance on the application of ratings were facilitated by Ms. Powell and Mrs. Aikens-Mitchell. The groups discussed:

- Policies, strategies and regulations in place to address sectoral CDM Mainstreaming
- Institutional and administrative platform in place to support mainstreaming
- Stakeholders involved in mainstreaming and level of understanding of mainstreaming requirements
- Tools, programmes and plans etc., in place to further support mainstreaming efforts

Output: Completed Data Collection Instrument (Sphere Matrix)

20.3 Working Group Session 3- Visioning and Goal Setting

Participants worked individually and then as a group to craft a vision for their sector related to CDM mainstreaming. Discussed by the group were the primary goals and objectives the sector sought to meet and the expected outcome or end result of the strategies, plans and programmes put in place to address CDM mainstreaming.

Output: Vision statement for the sector on Disaster Risk Reduction

20.4 Working Group Session 4: SCORE Analysis

The groups worked to identify their main areas of strengths and weaknesses, by listing an inventory of the resources available to them currently and noting the capacity and resource deficiencies currently affecting their productivity output. Discussed by the groups were their roles, existing capacities, needs and what opportunities existed to address deficiencies.

Participants then used the information compiled to articulate the rewards/results likely to be garnered via the opportunities which existed.

Output: Description of the resources and tools available in each sector to support CDM mainstreaming, the challenges to be addressed and the opportunities available to achieve tangible results in disaster risk reduction efforts.

20.5 Working Group Session 5: Stakeholder Analysis

The groups worked on identifying all stakeholders who were relevant, interested and/or had power over their work. In working, the group sought to arrive at a final output which was to prioritise their stakeholders and determine/assess if the engagement methods being used currently to communicate with their main stakeholders were indeed effective or required change to better facilitate the transmission of key messages.

Output: Comprehensive list of local, national, regional and international sectoral stakeholders

21 Key Results and Outcomes

The main observations and conclusions made by the Workshop's working groups and at its round table are as follows:

- The working groups agreed that comprehensive disaster management mainstreaming in national and sectoral policies, plans and programmes is important in safeguarding and protecting St Lucia's social, economic and environmental resources. Participants concluded that CDM mainstreaming will be important in helping the country to achieve sustainable development targets and goals.
- The working groups recommended that the mainstreaming data collection instruments used in the workshop, be modified if necessary, and used in their own internal processes to assess how well the sectors are achieving comprehensive disaster management mainstreaming.
- Participants suggested that sector stakeholders examine what factors are preventing them from moving forward with mainstreaming efforts. The following issues were identified as impediments:
 - No mechanisms in place to support intra and inter collaboration within sectors
 - There is insufficient financial resources allocated to sectors to cover matters such as DRR

- o There limited awareness about the plans and policies in place to manage disasters
 - o There are overlapping responsibilities between sectors
 - o There is limited data sharing between the sectors/agencies
- To advance mainstreaming efforts at the sectoral level, working groups recommended the following:
 - o Sectors/agencies should develop DRR specific regulations, plans and policies.
 - o Strengthen mechanisms to facilitate greater intra and inter collaboration within the sectors. Memorandum of Understandings should be used as a tool to foster collaboration between sectors, departments and agencies
 - o A central data repository should be created which provides easy access to relevant social, economic and environmental data
 - o Roles and responsibilities for sectors/agencies as it relates to Disaster Risk Reduction should be clearly defined.
 - o Strengthen administrative and institutional capacity by supporting the establishment of working groups/focal points in each sector focusing on DRR. These groups should be guided by the requisite DRR regulations
 - o Sufficient financial resources should be allocated to the sectors to deal with DRR. Ministries should have a line item in their budget which deals specifically with DRR and helps to support the work of the focal points/working groups
 - o Strengthen monitoring and evaluation systems across all sectors to address DRR
 - o Strengthen the enforcement arm of ministries, departments and agencies to deal with DRR

22 On site Evaluation of Workshop

To receive feedback from participants and assess the Workshop, a rapid feedback session was conducted during the closing segment of the workshop and a workshop evaluation questionnaire was also given to participants on the last day of the event.

The following feedback was provided by participants:

- Facilitators were knowledgeable and were able to facilitate substantive discourse on the topic of disaster risk reduction and comprehensive disaster management mainstreaming
- Activities and exercises were very appropriate and interactive; allowed participants to share their ideas, experiences and forced introspection.
- The agenda was well thought out and sufficient time was allotted for group discussions and completion of working group activities

- The data collection matrix was very comprehensive and facilitators did an excellent job in explaining the instrument.
- The inclusion of country priority sectors such as education in workshop was commendable
- The hospitality from the venue staff, including quality of the food was very satisfactory
- The workshop venue was not suitable for persons with disabilities. It also did not meet acceptable occupational health and safety requirements, as there was only one way in and out of the conference venue.
- There was no plenary discussion segment which would have allowed the sectors to share with each other the outcomes of the working group exercises

Workshop Evaluation Questionnaire Administration

A total of nineteen (19) persons completed the workshop evaluation questionnaire. The results are presented below.

Section 1: Content

Category	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Subject matter was adequately covered	53%	42%	5%	-	-
Content was suitable for my background and experience	32%	63%	5%	-	-
Participants were allowed to take an active part	90%	5%	5%	-	-
The workshop objectives were met	42%	37%	16%	-	-
The subject matter was relevant to my job function	47.5%	47.5%	5%	-	-

Section II: Organisation and Presentation

Organisation

Category	Excellent	Very Good	Good	Fair	Poor
Facilitation Method	42%	53%	5%	-	-
Meeting Space	5%	16%	16%	53%	-
Overall Organisation	31%	53%	16%	-	-

Presentation

Category	Excellent	Very Good	Good	Fair	Poor
Content	47%	53%	-	-	-
Delivery	47.5%	47.5%	5%	-	-
Presentation	37%	53%	10%	-	-

Overall Workshop rating: Excellent (37%), Very Good (52%), Good (11%).

Summary Recommendations for Improving Workshop

- Additional plenary sessions and presentations on DRR
- Use of venues which supports access for all groups
- Invitations should require the attendance of policy makers and senior managers or officials in government services at workshops focusing on policies, programmes and plans of action
- Information about the workshop required a longer notification period
- An exercise/activity should have been designed to allow for the interaction of stakeholders from different sectors

23 Moving Forward

Following the completion of the analysis of the workshop data, several validation exercises will be conducted with participants from the workshop and other relevant stakeholders from the priority sectors in St Lucia. The validation exercise will include the circulation of the preliminary results showing the assigned weight score for each of the priority sectors. Participants will be asked to review previous ratings applied to ensure they are correct, and include ratings for categories that are missing. The results for all sectors will be shared with all participants.

The second phase of validation will take place in the form of a workshop. Participants will be invited to discuss and share their views/comments on the two sectors which have been selected as the priority sectors based on the data which has been collected and analysed and

also on the draft policy frameworks and guidelines which has been developed to guide CDM mainstreaming. The workshop is scheduled for May 2017.

24 Conclusion and Recommendations

Mrs. Karema Aikens-Mitchell concluded the workshop by thanking all participants for their valuable contributions. She encouraged participants to share the information and resources gathered from the workshop with other sectoral stakeholders to move the disaster risk reduction agenda forward. Sector representatives were welcomed to share any additional information related to disaster risk reduction and comprehensive disaster management mainstreaming for their sectors with the reThink Social Development Limited Team.

The workshop was closed at 3:30p.m. on Tuesday, January 31, 2017.

Annex 1: Workshop Agenda



THE UNIVERSITY OF THE WEST INDIES



Workshop on Production of Policy Guidelines and Frameworks for Mainstreaming of Comprehensive Disaster Management in National Policy of Selected Sectors January, 2017 Castries, St Lucia

Workshop Objectives

- To assess the level to which CDM is included in national and sectoral plans policies and plans for the five priority sectors. The assessment will include the cross-cutting themes of gender, environment, information and communication technology (ICT) and climate change
- To Identify the challenges with CDM mainstreaming in the five priority sectors
- To identify actions that can enhance mainstreaming in the five priority sectors

AGENDA

Day 1- January 30, 2017

8:30- 9:00	Registration
9:00 – 9:05	Welcome – Karema Aikens-Mitchell
9:05 – 9:10	Prayer
9:05 – 9:30	Participant Introduction and Expectations
9:30 – 9:35	Remarks – Mrs Velda Octave Joseph, Director, NEMO
9:35 – 10:00	Overview of EKACDM Project and Mainstreaming Concept – Ms. Leiska Powell
10:00 – 10:30	COFFEE BREAK.....
10:30 – 11:00	Workshop Objective & Overview of Assessment Methodology- Ms. Karema Aikens-Mitchell
11:00 – 12:00	Exercise 1 – Assessment of CDM integration at national level
12:00 – 1:00	Exercise 2 - Assessment of CDM integration at Sector level

1:00 – 2:00	LUNCH.....
2:00 – 3:00	Exercise 2 – Continued
3:00 – 3:30	Exercise 3 - Visioning and Goal Setting (by sector)
3:30 – 4:00	Wrap up and Closing

DAY 2- January 31, 2017

8:30 – 9:00	Review and re-cap of Day 1 – Karema Aikens-Mitchell
9:00 – 10:30	Exercise 3 – SCORE (Strengths, Challenges, Opportunities, Results, Expectations) Analysis - (by sector)
10:30 – 11:00	COFFEE BREAK.....
11:00 – 12:30	Stakeholder Analysis
12:30 – 1:30	Recommendations of Tools and Trainings relevant for mainstreaming
1:30 – 2:00	Wrap up and Closing
2:00-3:00	LUNCH.....



Annex 2: Attendance Register

Annex 3: Local Media Feature

MBC Television, Castries, St Lucia

<https://www.facebook.com/1550085185206884/videos/1794693744079359/>

Appendix 3: Completed Matrices

See attachment

THE EKACDM INITIATIVE

The Enhancing Knowledge and Application of Comprehensive Disaster Management, EKACDM) Initiative is a five year project which was implemented in the Caribbean region from September 2013 to December 2018 by the Disaster Risk Reduction Centre, the Institute for Sustainable Development, the University of the West Indies. This Initiative seeks to establish an effective mechanism and programme to promote an integrated approach to Comprehensive Disaster Management knowledge in the Caribbean region, to fast track the implementation of the CARICOM Enhanced Comprehensive Disaster Management (CDM) Strategy and Frameworks (2007 - 2012 and 2014 - 2024).

The ultimate outcome of the EKACDM Initiative is to reduce the impact of natural and technological hazards and the effects of climate change on men, women and children in the Caribbean region. It seeks to position the region with greater knowledge and practical solutions to strengthen climate adaptation, and other sustainable practices that will make the region more resilient and sustainable.

For further information:

<http://www.uwi.edu/EKACDM/index.aspx>

<http://www.uwi.edu/drc/>

<http://www.uwi.edu/isd/>