



Enhancing Gender Visibility in Disaster Risk Management and Climate Change in the Caribbean

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Foreword

The United Nations Development Programme (UNDP) is the UN's global development network, an organisation advocating for change and connecting countries to knowledge, experiences and resources to help people build a better life. We are on the ground in 166 countries, working with them on their own solutions to global and national development challenges. One of the five key practice areas in which the UNDP works is “crisis prevention and recovery”, including disaster risk reduction. Among others, the 2008-2012 Strategic Plan outlines the role of the UNDP in assisting countries prone to natural disasters to reduce vulnerabilities.

With the acceleration of global climate change, and given the vulnerability of Caribbean countries, the increasing risk posed by a range of natural, environmental and technological hazards remains one of the region's most critical unresolved development problems. The integration of risk reduction into the human development framework is essential. The Hyogo Framework for Action, approved in January 2005 as an outcome of the World Conference on Disaster Reduction, guides the UNDP's collaboration in this area and is a decisive step forward in putting disaster risk reduction on the international agenda. The UNDP dedicates resources to working with national partners to integrate disaster risk assessments into national development plans and coordination mechanisms for managing and reducing risk.

In the Caribbean region, UNDP supports such objectives through the Bureau for Crisis Prevention and Recovery (BCPR) and the Caribbean Risk Management Initiative (CRMI). BCPR, founded in 2001, has served as a global leader in efforts to improve understanding of the patterns of disaster risk and its influence on development pursuits. Research initiatives, pilot projects, technical assistance, financial support and dissemination of best practices have contributed to the evolution and effectiveness of BCPR in the region.

Launched in 2004, CRMI provides a platform for coordinating and sharing knowledge and experiences on risk management throughout the Caribbean, across language groups and cultures and through print and electronic mediums (www.undp.org/cu/crmi). This regional programme is anchored in the Cuba and Barbados UNDP country offices, the latter also encompassing the Organisation of Eastern Caribbean States (OECS). CRMI provides a vehicle for promoting skill building, experience sharing, reflection, and discussion in the field of climate change risk management, including gender equality and focus on vulnerable groups.

CRMI actively facilitates the integration of a gender perspective in the field and is pleased to present the findings of the project **'Enhancing Gender Visibility in Caribbean Risk Management'** conducted in six different Caribbean countries. The study provides an analysis of gender considerations in national disaster management institutions and mechanisms as well as assesses the relationship between gender, climate change factors and subsequent implications for risk management. The main findings of this research provide concrete recommendations to move forward with the incorporation of a gender perspective in national risk management policies. I would like to thank the Gender Thematic Trust Fund (GTTF) for their support during the implementation of this project.

Susan McDade
Resident Representative UNDP Cuba
(Chair, CRMI Project Steering Committee)

Preface

The UNDP Human Development Report 2007/2008 notes that ‘climate change is not just a future scenario. Increased exposure to droughts, floods and storms is already destroying opportunities and reinforcing inequalities’. It is people living in poverty who are disproportionately affected by climate change, as they struggle to survive day to day. Worldwide, the majority of these poor are women, and the children and elderly dependent on them for sustenance. Such climate change impacts are magnified in the Caribbean, as a number of Caribbean countries are Small Island Developing States (SIDS), and thus face vulnerabilities associated with their size and geography, fragile resource base and limited development options.

The main objective of this publication is to make visible the inherent gender issues in the experience, management and adaptation to risk in the Caribbean region. The development dilemma posed by climate change cannot be addressed adequately without analyzing and responding to how these risks impact women and men differently. Each have distinct socially prescribed roles with corresponding activities, resulting in a differentiated lived experience. In order for risk management policies and practices to be effective, these differences – as well as the varied coping and adaptation strategies - must be taken into account. We can learn lessons on how best to undertake this necessary adaptation if we examine these practices and understand better their relation to each gender.

Objective 3 of the Millennium Development Goals – a framework of paramount importance for the United Nations and the entire international community – is ‘to promote gender equality and women’s empowerment’. This research project contributes to the achievement of greater equality in the field of risk management, which is fundamental for the survival and well-being of women and men, by bringing to the fore critical issues on risk management and gender. In the last few years, it has been globally recognized that disasters often have a greater impact on women than on men, both for social and cultural reasons. The case of the 2004 Indian Ocean tsunami is notable; there were four times as many female as male fatalities.

An international instrument of paramount importance for climate risk management is the Hyogo Framework of Action, approved by the international community in 2005 as a result of the UN’s International Conference on Disaster Reduction. One of the cross-cutting principles of the Hyogo Framework is the ‘inclusion of a gender perspective and cultural diversity’ as fundamental to increasing local, national and regional capacity to anticipate and address risks and minimize potential impact. The actions undertaken in this project aims to strengthen the implementation of the Hyogo Framework in the Caribbean region, by serving as an advocacy tool for more effective national and regional risk management policies, through the incorporation of a gender perspective.

Ensuring a gender perspective as an integral part of risk management capacity will render more effective the actions and policies that Caribbean governments can consider implementing, and is in keeping with the UNDP’s position that gender inequities endanger human development.

The research presented here was made possible due to the common interests between strategic actors within and outside the UN system, who have a particular commitment to gender equality. The agencies who answered the call to join this alliance which was supported through the Gender Thematic Trust Fund (GTTF), include: BCPR, UNDP, UN-ECLAC, UNIFEM, SURE, and the 'America Latina Genera' project. This collaboration proved vital for identifying existing studies and gaps in the field, and allowed this research to build on what had previously been done. These entities and their respective constituencies can now lobby together for the implementation of the recommendations put forward.

Many thanks are owed to all who worked together under a shared vision to conduct these studies, convinced of the need to bring to light how women and men in Caribbean communities differ in coping with climate change and risk, and how they bring their talents and experiences to bear on finding creative solutions. Ms. Karen Bernard – UNDP Fiji, former CRMI Programme Manager, who initiated this research project and provided technical guidance. Ms. Avril Alexander, CRMI Knowledge Management Consultant, who took the lead in providing technical guidance following the departure of Ms. Bernard and ensuring quality control of the final deliverables. The research team at University of the West Indies Centre for Gender and Development, enthusiastically led by Dr. Leith Dunn, dedicated many hours to field work and analysis of the rich material gathered. Communities, civil society organisations and government offices opened their doors and invited the researchers in to hear their stories. The participating UN agencies and programmes generously assigned their experts to discuss and refine the analysis, now captured in this knowledge product published here. It is only through this kind of exemplary collaborative effort that progress can be made in addressing a critical development issue of our times.

Caribbean Risk Management Initiative (CRMI) –
Ian King, UNDP Barbados & the OECS
Jacinda Fairholm, UNDP Cuba

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List of acronyms

AIDS	acquired immune deficiency syndrome
CDERA	Caribbean Disaster Emergency Response Agency
CDM	Comprehensive Disaster Management
CDC	Civil Defence Commission
CEDAW	Convention on the Elimination of all forms of Discrimination against Women
CGDS	Center for Gender and Development Studies
CRC	Convention on the Rights of the Child
CRMI	Caribbean Risk Management Initiative
ECLAC	Economic Commission for Latin America and the Caribbean
GTTF	Gender Thematic Trust Fund
HIV	human immunodeficiency virus
ICPD	International Conference on Population and Development
INSTRAW	United Nations Research and Training Institute for the Advancement of Women
ISDR	International Strategy for Disaster Reduction
MDG	Millennium Development Goal
NEMO	National Emergency Management Organisation
NEPO	National Emergency Planning Organisation
NGO	non-governmental organisation
ODM	Office of Disaster Management
ODPEM	Office of Disaster Preparedness and Emergency Management
OECS	Organisation of Eastern Caribbean States
SEA	Socio-Economic Assessment
SIDS	Small Island Developing States
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Populations Fund
UNIFEM	United Nations Development Fund for Women
UWI	University of the West Indies

1. Introduction

The United Nations Development Programme (UNDP) through its Caribbean Risk Management Initiative (CRMI)¹ has undertaken studies on gender, disaster risk management and climate change within the Caribbean to bring to light the different levels of vulnerability and hazard impact as experienced by men and women due to their different socially prescribed roles. The research, which was funded by UNDP's Gender Thematic Trust Fund (GTTF), was carried out by the Center for Gender and Development Studies of the University of the West Indies (UWI), Mona campus.

The main objective of the project is to make visible the differences between men and women in their ways of experiencing, managing and adapting to risk in the Caribbean region, in order to advocate for more effective national and regional risk management policies, through the incorporation of a gender perspective.

The research aspect of the project had two main components, namely:

1. An assessment of the national disaster management mechanisms in five selected Caribbean countries to determine to what extent the risk management governance mechanisms in these countries effectively incorporate gender considerations or not;
2. Research and documentation of three case studies on the gender impact of climate change, and the adaptation practices to mitigate these impacts, on the following:
 - Agriculture in two indigenous communities in Guyana;
 - Water and sanitation in rural communities in Jamaica;
 - Agriculture and housing in Suriname.

The CRMI was utilized as the platform for undertaking these studies to take advantage of the wide networks and systematic linkages formed by the Initiative in order to enable regional coverage, and for publicizing the research findings and promoting follow-up through policy lobbying and increased awareness. As a UNDP initiative it has also benefitted from that agency's long-term presence on the ground; its influence on and collaboration with other actors; close relationships with governments; and wide network of specialists and contacts. The CRMI is managed from two UNDP country offices – UNDP Cuba and UNDP Barbados & the Organisation of Eastern Caribbean States (OECS) – with participation from other UNDP offices in the Caribbean.

¹Further information on the CRMI can be sourced at www.undp.org/cu/crmi

2. Gender and risk reduction frameworks

2.1. International Strategy for Disaster Reduction (ISDR) and the Hyogo Framework for Action²

The International Strategy for Disaster Reduction (ISDR) and the Hyogo Framework for Action requires countries to mainstream gender in disaster risk management. The Hyogo Framework outlines priorities aimed at ensuring a substantial reduction of disaster losses in lives and in the social, economic and environmental assets of communities and countries. There are three strategic goals:

1. Integrating disaster risk reduction into sustainable development policies and planning;
2. Development and strengthening of institutions, mechanisms, and capacities to build resilience to hazards;
3. The systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response, and recovery programmes.

Priorities for Action include:

- Making disaster risk reduction a priority;
- Knowing the risks and taking action;
- Building understanding and awareness;
- Reducing risk;
- Being prepared and ready to act.

2.2. Caribbean Disaster Emergency Response Agency (CDERA) Action Plan for Gender Mainstreaming in Risk Reduction³

Consistent with the Hyogo Framework, CDERA organised a workshop in 2005 entitled 'Gender Mainstreaming in Natural Hazard Risk Reduction,' and developed an Action Plan for Gender Main-

² See <http://www.unisdr.org/eng/hfa/docs/HFA-brochure-English.pdf>. Retrieved 29 November 2008

³ See <http://www.cdera.org/doccentre/conf/gender/tablesofaction.pdf>

streaming in Risk Reduction. This event was the first of its kind in the english-speaking Caribbean and addressed four main areas:

- Capacity building in gender planning;
- Preparing for Socio-Economic Assessment (SEA) from the gender perspective;
- Understanding the implications of gender in community disaster planning;
- Gender mainstreaming in national planning.

Specific interventions and activities are outlined for each phase of a disaster and responsibilities are also assigned. Action at national level requires collaboration between relevant agencies and elements of the Action Plan include:

1. Pre-disaster (mitigation, preparedness and prevention)
 - Research and data collection
 - Budgeting and finance
 - Education training and capacity building
 - Participation partnership and community involvement
 - Media
2. Emergency (disaster)
 - Budgeting and finance
3. Transition (recovery and rehabilitation)
 - Research and data collection
 - Budgeting and finance
 - Media
 - Participation partnership and community involvement
4. Reconstruction
 - Policies and programmes

2.3. Human rights framework

The CDERA Action Plan and the Hyogo Framework to gender equality and gender mainstreaming are supported by a strong human rights framework. Each of the countries included in the study are signatories to several conventions and consensus agreements that support a rights-based approach to development planning. Government agencies such as those responsible for national disaster management and gender equality are ‘duty bearers’ which means that they have a responsibility to ensure an enabling environment for all citizens who are ‘rights holders’.

The framework to mainstream gender is based on the principles of the Universal Declaration of Human Rights, the Convention on the Elimination of all forms of Discrimination against Women (CEDAW) and the Convention on the Rights of the Child (CRC). It is also supported by consensus agreements such as the Millennium Declaration and the Millennium Development Goals (MDGs); the Programme of Action of the International Conference on Population and Development (ICPD); the Madrid Declaration on Ageing; and the Kingston Declaration on Rights of Disabled Persons. Some countries are also signatories to other frameworks such as the Belem to Para Convention to prevent and punish violence against women, commitments to eliminate HIV and AIDS, as well as others to prevent trafficking of persons, the majority of whom are women and children.

Together these frameworks imply that the rights of all vulnerable groups must be protected before, during and after a disaster and that the differential needs of males and females must always be considered.

3. Gender, climate change and disaster risk management: literature review

This study builds on earlier work in the Caribbean to establish the importance of gender mainstreaming in climate change and disaster risk management. In the Caribbean, the available literature is still limited but one study highlights many of the main issues and provides training to address related problems: the publication by Enarson et al (2002), entitled 'Working with Women at Risk: Practical Guidelines for Assessing Local Disaster Risk'.⁴ *The Gender Impact Assessment Study of Hurricane Ivan in Grenada* (2004) conducted by the United Nations Development Fund for Women (UNIFEM), the Economic Commission for Latin America and the Caribbean (ECLAC) and UNDP also provides valuable insight into the differential impact that climate change and natural disasters have on men and women in the Caribbean because of their pre-existing vulnerabilities. Alba and Luciano (2008) also provide much needed insight into issues of sexual and reproductive health, violence against women and the situation of vulnerable persons affected by Hurricane Noel in the Dominican Republic.

These reports reflect a common theme visible in studies outside the region. For example, Enarson and Hearn Morrow (1998) provide insight into the impact of disasters on women and recommend gendered disaster policies, practices and research. Similarly, Kumar-Range (2001) addresses the importance of gender in 'Environmental Management and Disaster Risk Reduction: A Gender Perspective'. More recently, Brody et al (2008) in a BRIDGE development-gender publication, map the linkages between gender and climate change.

The literature on gender and climate change is less well established than that related to gender and disaster management. However, the United Nations has recognised the importance of the issue. The section following (Box 1) outlines a statement on the matter.

⁴ Elaine Enarson in collaboration with Lourdes Meyreles, Betty Hearn Morrow, Audrey Mullings and Judith Soares, 'Working with Women at Risk: Practical Guidelines for Assessing Local Disaster Risks' International Hurricane Center, Florida International University, USA 2002.

<http://www.desastre.org/home/data/pdf/risk/eng/Working%20With%20Women%20At%20Risk%20by%20Dr.%20E.%20Enarson.pdf>

Box 1: 2008 Climate and Gender Update: A Report for the United Nations Secretary-General Ban Ki-Moon ⁵

The United Nations is formally committed to gender mainstreaming within all policies and programmes. However, gender equality is not yet realized in any society or part of the world. Gender differences are observed in every stratum of social institutions ranging from the family to religious groups or caste systems; political and legal structures; economic and educational institutions; and the mass media. All are permeated with norms and values which inform the economic, social, institutional, and legal constraints which affect women and men's rights to own land, control resources, access technology and education; and thereby also influence the attitudes, contributions, impacts, and individual potential to adapt to climate change.

A number of issues signal the crucial role of gender in understanding the causes of climate change, efforts to mitigate it, and working towards successful adaptation to inevitable climate variability and change:

1. Women and men – in their respective social roles – are differently affected by the *effects of climate change and variability*;
2. Similarly, women and men – in their respective social roles – are differently affected by *climate protection instruments and measures*;
3. Women and men differ with regard to their respective *perceptions of and reactions to climate change and variability*;
4. Women's and men's contributions to climate change and variability differ, especially in their respective *CO₂ emissions*;
5. Climate protection measures often fail to take into account the *needs* of large numbers of poor, women, children and elderly members of society, in terms of infrastructure, energy supply, etc;
6. The *participation of women in decision-making* is very low in climate policy and its implementation in instruments and measures.

⁵ See <http://www.climatecaucus.net/chapterongendertext2.html> Retrieved 1 December 2008

4. Factors affecting gender vulnerability to climate change and disasters in the Caribbean

4.1. Lack of awareness and capacity

Lack of awareness of gender as a concept and tool for analysis, the importance of gender differences as well as limited capacity to use gender analysis as a planning tool, together increase the vulnerability of Caribbean countries to risks associated with natural hazards.

Gender explains the meanings that societies give to being masculine or feminine while 'sex' refers to biological differences between men and women. Gender differences are used to create an unequal sexual division of labour between men and women with women being in a subordinate position. Their socially ascribed roles and responsibilities give women and men differential access to power, resources, status and decision-making authority.

4.2. Lack of gender mainstreaming

Gender mainstreaming is a strategy that was adopted at the Fourth World Conference on Women held in Beijing in 1995. It uses **gender analysis** to assess the implications of planned policies and programmes on the lives of men and women. By understanding the differential experiences of men and women in relation to their unequal social, economic, and political status, gender analysis can help to guide the design, implementation, monitoring and evaluation of policies and programmes. This will ensure gender equality and fair results for both men and women.

Gender roles ascribed to men and women form part of their masculine or feminine identity. Men's roles are family protectors and providers. Women's are assigned responsibility as caregivers but many are single heads of household which means they have both roles as providers and caregivers.

In the Caribbean, gender differences are influenced by class, race, and ethnicity. The value given to the work and contribution of women is usually valued less than the role of men because it is assumed that a man's wages are expected to provide for a family, while women's wages are supplementary to the household. However, many Caribbean households are headed by women. These factors affect the vulnerability and risks associated with natural hazards and must therefore be integrated in disaster risk management policies, laws, programmes and practices to ensure that the human rights of all individuals are protected and the goals of gender equality are respected.

Gender and cultural differences influence how individuals cope with natural hazards and pre-existing gender inequalities that give women and men differential access to employment; wages and power in decision-making on a wide range of issues; and impact on their capacity to prepare for, survive and recover from a disaster or adapt to climate change.

4.3. Vulnerability from climate change

In addition to vulnerabilities associated with gender differences, Caribbean countries are also vulnerable to climate change. This defined by the United Nations Framework Convention on Climate Change (UNFCCC)⁶ as the change of climate which is directly attributed to human activities which over time alter the composition of the global atmosphere. The concept of vulnerability to climate change is associated with the degree to which systems are susceptible to, and unable to cope with, adverse impacts.

A review of available literature demonstrates that climate change affects human life in fundamental ways and has a differential impact on women and men. For example, a rise in temperatures results in an increase in heat-related illnesses and mortality due to infectious diseases. This has a differential impact on women because of their socially-ascribed gender roles as caregivers described previously. But as women tend to earn less income, have lower social status, and decision-making power the impact of climate change on them is more severe. Climate change also affects water resources, agriculture, fisheries, food security, economy, health and human well being.

4.4. Vulnerability of Small Island Developing States

In addition to vulnerabilities associated with gender differences, lack of gender mainstreaming and climate change, Caribbean countries also face risks associated with their status as Small Island Developing States (SIDS). This often implies that they are at increased risk from rising sea levels, higher temperatures, weather extremes, cycles of droughts and floods, and other factors associated with climate change. In recent years, the Caribbean region has experienced evidence of climate change and vulnerabilities associated with SIDS. Evidence has included extreme weather conditions that have negatively impacted national economies and the lives of Caribbean people.

⁶ See <http://www.ipcc.ch/pdf/glossary/ipcc-glossary.pdf>

5. Summary of research findings

5.1. Research methodologies

5.1.1. Country assessments: data collection for field research

Two research instruments developed by the CRMI Advisory Committee were used for the country assessments, to interview national agencies responsible for disasters and to interview the national machinery for women and gender issues. They were also used to consult other stakeholders. Contact was made with the relevant agencies and interviews were scheduled, data collected was analyzed to prepare the various county assessment reports.

The country assessments focused on **governance of risk management** in the main organisations responsible for disaster management to determine whether relevant **policies and the legal framework** reflected gender sensitivity, consistent with the Hyogo Framework and the CDERA Action Plan. **Leadership and staffing** in relevant agencies were assessed and attempts were made to collect sex disaggregated data on various levels of staff.

Gender and risk configuration

Data on gender and risk configuration included information on the main types of disasters, sectors of the population considered **most vulnerable**, and **policies** in place to address these vulnerabilities. Attempts were also made to assess **perceptions of how men and women are threatened differently** by various types of disaster risks and the reasons. Efforts were also made to assess whether a system was established and maintained to **collect sex-disaggregated data** on deaths, damages and losses resulting from disasters. Sex-disaggregated data on deaths and damages from the three most recent disasters was also requested.

Gender focus

This section of the assessment sought to determine whether each agency has a **gender strategy or policy** and any **activities** undertaken to promote gender equity when disasters strike. Information was also sought on **how gender is integrated into the agency's work programme**, including public information and education. Data was requested on how disaster management policies take gender into account in risk identification and mapping, early warning systems, disaster communications, evacuation procedures, shelters and interim housing, and recovery and reconstruction.

The instrument also assessed **familiarity with CDERA's Action Plan** for gender mainstreaming in disaster risk reduction in the Caribbean (2005) and the extent to which recommendations had been implemented.

Specific questions also sought to identify **mechanisms for collaboration** between the national disaster management agency and the national government machinery for Gender/Women's affairs,

as well as other organisations involved in gender and disaster risk issues. The final questions sought to assess **awareness of legislation and policies** to promote equal opportunities for men and women and **familiarity with international policy statements on gender and disasters** in relation to the International Strategy for Disaster Reduction (ISDR) and the Hyogo Framework of Action.

5.1.2. Case studies: data collection methods

Each case study examined the differential gender impact of climate change on men and women in local communities. It documented 'best practices' utilised in adapting local knowledge and practices as survival strategies in a diverse cultural context. Conclusions and lessons learnt provide insight into approaches that can be adapted for use in other countries to ensure interventions that are gender specific and culturally sensitive.

5.2. Findings from the Country Assessments

The results of the assessment of Gender Mainstreaming in Disaster Risk Management legislation, policies, mandates and mission statements presented in this section highlight the following issues:

5.2.1. Profile of the agencies

National disaster agencies

National disaster agencies are established and operational in all five countries; Table 1 provides a profile of these agencies. All had departments specifically established for disaster risk management and were part of a national institutional framework for managing disasters. Most of these agencies had been established after a major disaster and had been in existence for many years. The earliest institution established was in the Dominican Republic (1966) which explains the country's comprehensive legislative framework. Belize was the most recently established in 1999 and Dominica was in the process of developing legislation.

Legislative frameworks

Table 1 shows that none of the countries showed evidence of gender mainstreaming in their legislative framework, policies, mandates or mission statements. The legislative framework of the Dominican Republic (see Box 2) provides an example of a comprehensive policy, but there is no specific legislation to support gender mainstreaming.

Table 1: Overview of national disaster risks management agencies

Country	Name of disaster agency	Date established	Mandate	Portfolio Ministry	Existence of legislative framework	Gender-sensitive policy
Belize	National Emergency Management Organisation (NEMO)	1999	“the preservation of life and property”	Ministry of Transport, Public Utilities, Communications	Disaster Preparedness and Response Act, Cap 245 of the Laws of Belize, Revised Edition 2000-2003.	No
Dominica	Office of Disaster Management (ODM)	1983	‘protection and safety of the people and assets of the country, the sustainability of our social and economic progress, and our future survival as an independent nation’ (Policy and Mission Statement)	ODM reports to the National Emergency Planning Organisation (NEPO), in the Ministry of Public Utilities	Reports indicate that a legislative framework is currently being drafted.	No
Dominican Republic	National Commission for Emergencies	1966	Responsible for disaster risk management	Reports to the Office of the President	Extensive Legislative Framework (see Box 2)	No
Guyana	Civil Defence Commission (CDC)	1982	Responsible for disaster risk management	Civilian agency in Office of the President	Operates under general legislation regulating the operations of the Office of the President.	No
Jamaica	Office of Disaster Preparedness and Emergency Management (ODPEM)	1980	Responsible for disaster risk management	Ministry of Local Government and Environment	Operates under Section 15 of the Disaster Preparedness and Emergency Management Act.	No

Source: Compiled from CRMI country assessment data (2008)

Mandates

Most agencies have clear mandates generally aimed at disaster mitigation and preparedness. There is general collaboration with a network of government institutions, international agencies and to a lesser extent, some civil society agencies to preserve life and protect the safety of nationals in the event of a disaster.

The mandate of the Office of Disaster Preparedness and Management (ODPEM) in Jamaica is also comprehensive in its scope but does not reflect any gender mainstreaming. The mandate states that:

‘The Office of Disaster Preparedness and Emergency Management is committed to taking pro-active and timely measures to prevent and to reduce the impact of hazards on Jamaica, its people, natural resources and economy through its trained and professional staff, the use of appropriate technology and collaborative efforts with national, regional and international agencies.’

Box 2: Dominican Republic legislative framework

Law No 257 dated 17 July 1966 established the Office of Civil Defense (Oficina de Defensa Civil), which is the government mechanism responsible for disaster risk management.

- In addition, Decree No. 2045 (GO No. 9083 of 5 June 1968) established the Commission of Civil Defense (Comision de la Defensa Civil), which oversees the Office of Civil Defense.
- Decree No. 2784 of 6 October 1981 created a National Emergency Plan for the National Commission (G.O. No. 9566 of 15 October 1981).
- Decree No. 159 of 13 April 2000 modified Article No 3 & 4 of Decree No 2784.
- Decree No. 360 of 14 March 2001 created the Centre for Emergency Operations.
- Decree No. 361 of 14 March 2001 named permanent representatives of institutions for the National Emergency Commission.
- Decree 487 of 1 May 2001 established the status of the National Emergency Commission as part of the Civil Defense Agency.
- Decree No. 715 of 5 July 2001 created the National Office for the Evaluation of Seismic Evaluation and Vulnerability of Infrastructure and Buildings.
- Law 147 of 22 September 2002 created an Emergency Budget.
- Decree No. 932 of 13 September 2003 approved the regulations to apply Law No 147-02 for the Emergency Budget
- Decree No. 1080 of 24 September 2003 declared 22 September of each year as the day to promote disaster prevention and emergency response.

Policy and Mission Statements

A similar observation to Jamaica's mandate is made of Dominica's national disaster agency policy statement which indicates that:

'National Disaster Management is to be given the highest level of authority, and it is to be adequately resourced to ensure the protection and safety of the people and assets of the country, the sustainability of our social and economic progress, and our future survival as an independent nation.'

Dominica's national disaster agency Mission Statement also reflects the absence of gender mainstreaming:

'The Office of Disaster Management is committed to taking proactive and timely measures to prevent or reduce the impact of disasters on the Dominican people and economy through its efficient staff and collaborative efforts with national, regional, and international agencies.'

Institutional accountability

These agencies operate under the auspices of a variety of government institutions, ranging from the office of the head of state (Guyana and the Dominican Republic) to specific ministries.

These results underscore the need to support countries to mainstream gender in legislation, policies, mission statements and mandates.

5.2.2. Leadership and staffing

Results of the country assessments reflected a traditional sexual division of labour with the majority of agency heads being males; technical officers were likely to be either male or female while most support staff was females.

This gender profile of the leadership of disaster agencies reflects traditional gender norms: male leadership and female support, consistent with the male role as protectors and provider. Belize and the Dominican Republic were exceptions. The current head of the agency in Belize was the first female and non-military leader of the agency. In the Dominican Republic the agency is still headed by a former military leader who was however, quite sensitive to gender issues. The agencies in Belize and the Dominican Republic emerged from military traditions hence the male leadership. Leadership often influences the culture, norms and practices of an organisation. As all the countries have fairly equal numbers of males and females, current policies and practices are likely to discriminate against women and other marginalized groups making them more at risk when there is a disaster.

The leadership of the national machineries for gender and women's affairs was all female. Heads of civil society groups also tended to be females but most are not major players in national decision-making mechanisms for disaster risk management.

5.2.3. Awareness of gender differences of how disasters impact men and women

This was limited which underscored the importance of CDERA providing training in gender mainstreaming to ensure that gender differences are consistently included in the management of disaster risks at policy and decision-making levels as well as in programme coordination and implementation.

5.2.4. Knowledge of the CDERA Plan of Action for Gender Mainstreaming was limited

This was in relation to the level of action required for implementation and confirmed the need to provide more formal in-depth training of key stakeholders in terms of the various components and commitments.

5.2.5. Gender machineries were not integrated into national disaster planning mechanisms

This as a common feature in all the country assessments; collaboration between the two respective groups was generally sporadic and specific to welfare response for women and their families when disasters occurred. The one exception was the Bureau of Women's Affairs in Jamaica that had proactively organised a training workshop on gender and disaster risk management for International Women's Day, with support of the national disaster management agency. An action plan from this event identified the need to mainstream gender in disaster policies and programmes.

5.2.6. Inter-agency partnerships

Most national disaster agencies collaborated with civil society groups when there is a national disaster but civil society broadly defined was not involved in any consistent manner. The exception was the International Red Cross which was integral to the disaster machinery of most countries. Country assessments indicated that some nationals consulted were aware that the Red Cross had, at a global level, adopted a gender policy for disaster risk management.

5.2.7. Absence of policy to mainstream gender in disaster risk management programmes and strategies

The assessment confirmed the absence of specific policies but general interest in building capacity and technical skills required to mainstream gender in disaster mitigation preparedness prevention recovery rehabilitation and reconstruction.

5.2.8. Gender and risk configuration

Main types of disasters

There was general consensus on the main types of disasters affecting each country. Hurricanes and floods were the most common disasters cited for most countries.

Perceptions of vulnerable groups

In general, there was general consensus on the population groups that were considered most vulnerable. The most commonly cited were the poor, persons living in flood prone or low lying areas, on hillsides and those living in precarious housing. These responses indicated that most persons consulted see disasters as gender neutral meaning there is not need to consider specific needs of men or women. There was more agreement that pregnant and lactating women, children and the poor were more vulnerable. Fewer respondents mentioned the vulnerability of older persons related to their limited mobility or persons with disabilities.

In the Dominican Republic, Haitians and especially Haitian women were identified as being especially vulnerable. Some rural communities were also considered at risk if they were susceptible to flooding. Women and children in shelters were also recognised as facing risks of sexual violence and that pregnant women lacked privacy to breastfeed their children. While there was no specific policy to address the vulnerability of these groups, in practice most countries prioritized the evacuation of women and children.

Perceptions of the differential vulnerability of women and men

There was some commonality in perceptions of how men and women were threatened differently by disasters but the analysis was usually not specific to the various types of disaster risks in the respective countries. One issue emerging was that men faced risks because they sought to protect homes, farms and animals instead of going to shelters when there was a hurricane or flood. For women, risk of sexual violence in shelters emerged as a common theme.

Absence of sex-disaggregated data

Perhaps the greatest challenge across the five countries was the absence of a system to collect sex-disaggregated data on deaths, damages and losses resulting from disasters. Most countries were unable to provide sex-disaggregated data on deaths and damages from the three most recent disasters which had impacted their country. This indicated an opportunity to strengthen data collection systems and build institutional capacity to collect and disseminate sex-disaggregated data to a wider range of stakeholders.

Proactive gender initiatives

There were relatively few proactive initiatives to promote gender equity when there is a disaster. One 'best practice' was the use of radio dramas to promote disaster awareness among women in the Dominican Republic. Another was the Jamaica Bureau of Women's Affairs public education workshop on gender and disasters for International Women's Day which led to the development of an Action Plan. The results indicate a need for increased action to integrate gender in disaster preparedness education programmes. These should highlight differential needs, vulnerabilities and risks of women and men in different situations. Countries also need to develop capacity to creatively integrate gender in public education initiatives for disaster management.

Responses also indicated that countries need support to mainstream gender in national disaster management policies and in areas such as:

- Risk identification and mapping;
- Early warning systems;
- Disaster communications;
- Evacuation procedures;
- Shelters and interim housing;
- Recovery and reconstruction.

Familiarity with CDERA's Action Plan for Gender Mainstreaming

There was varying levels of familiarity with CDERA's Action Plan for Gender Mainstreaming in Disaster Risk Reduction in relation to Outcome #4 of the revised Comprehensive Disaster Management (CDM) Strategy. Some persons were unaware, a few were vaguely aware but none of the responses suggested that any of the agency representatives consulted were fully familiar with this framework. Some persons explicitly stated that they did not know how to implement the recommendations at national level but were keen to learn the relevant skills and strategies.

Awareness of the country's legislation and policies to promote equal opportunities

Awareness of relevant laws and policies to promote equal opportunities for men and women as well as international policy statements on gender and disasters appeared limited.

5.3. Recommendations from the Country Assessments

To enhance implementation of the CDERA Action Plan and the Hyogo Framework, CDERA and the UNDP should use the findings of this CRMI study to:

1. Develop an **education** programme to increase awareness of the gender framework and other human rights commitments that promote gender equality. Over time, national programmes would be characterized by a rights-based, gender-sensitive approach to disaster risk management, be more participatory and inclusive of a broader and more diverse range of stakeholders.
2. Organise a regional **training** programme on gender mainstreaming in disaster risk management for: National Disaster Management agencies; National Gender Machineries, private sector and of civil society groups such as churches, women's groups, community associations. Gender trainers can be drawn from ECLAC, UNDP and the UWI Centre for Gender and Development Studies Units.

3. Develop a **technical assistance** programme to support gender mainstreaming in national laws, policies, institutional structures, programmes and strategies related to disaster risk management. Model policies could be developed for adaptation by national agencies.
4. Organise **sensitization workshops on gender and climate change** to build awareness of the links between gender and climate change and adaptation strategies, using data from the CRMI project.
5. Strengthen national capacity to collect **sex-disaggregated data** on deaths, damages and losses related to disaster management and to use **gender analysis** of the data to guide policy and programme interventions.
6. Encourage national disaster management agencies to integrate the national gender machinery into the national disaster coordinating and planning mechanisms to support gender mainstreaming.

5.4. Findings from Case Studies on climate change adaptation

1. Gender inequalities result in women and men having differential needs, opportunities which must be considered in climate change adaptation strategies.
2. Women's social, economic and political inequalities make them more vulnerable to risks associated with climate change and are likely to be worse off from the impact of related changes. The increased vulnerability of women will have a negative impact on national poverty reduction strategies and will be felt especially in households headed by single women, which tend to be larger than male households and multigenerational. This increases the vulnerability of young children, the elderly, the sick and disabled who reside in these households. Women's vulnerabilities are compounded by their double burden of reproductive and productive work.
3. Gender analysis must be used as a planning tool and gender must be mainstreamed into all national policies and programmes to ensure equal participation and sustainable development that protects the human rights of all population groups, especially the most vulnerable.
4. The case studies confirmed the higher vulnerability of women related to gender roles customs and responsibilities. Women's responsibilities in agriculture, water, sanitation and housing increases their vulnerability and risk to climate change.
5. Climate change negatively impacts livelihoods and cultural norms that limit options available to women for employment within and outside their communities.

5.5. Recommendations from Case Studies on climate change adaptation

1. Promote gender mainstreaming in Ministries of Finance, Planning and Agriculture to support the adoption of gender-sensitive policies in rural development programmes, increased agricultural extension training for rural women to increase their capacity to cope with climate change, and encourage men to support this process.
2. Promote gender mainstreaming in Ministries responsible for Housing, Water, Sanitation and Lands to support the adoption of gender-sensitive policies and programmes that will address the specific needs of women and men.
3. Promote gender-sensitive interventions to mitigate the impact of climate change that take account of the different risks and vulnerabilities of women and men, builds on local knowledge and skills, and gives women more power and control over their situations.
4. Expand training for women in non-traditional skills to enhance their ability to manage and mitigate risks associated with climate change (e.g. construction and repairs to houses; agricultural practices)
5. Strengthen the institutional capacity of development non-governmental organisations (NGOs) to enable them to provide gender-sensitive support to indigenous communities impacted by climate change.

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Appendix II: CRMI framework for Case Studies

GUYANA CASE STUDY

Sector: Agriculture

Climate change affects agricultural practices, as temperatures fluctuate and diverge from the expected ranges, and seasonal rainfall regimes become unpredictable. Amerindian women in Guyana make a unique contribution to the adaptation of traditional agricultural practices to the emerging realities of climate change and how it affects this productive sector. One of the traditional staple foods in Guyana is yucca or cassava, and in Amerindian culture the women are the custodians of the germoplasm bank for this crop.

Based on the climate conditions in a particular season, and rainfall received and expected, the women determine which variety of cassava should be sown. In this way, the women facilitate a climate change adaptation practice of great use to their community – as it involves food security and livelihoods – and at the same time, it plays the important role of conserving traditional knowledge about their local biodiversity. This knowledge is passed on verbally from one generation to the next.

JAMAICA CASE STUDY

Sector: Water and Sanitation

Research has recently been conducted in several rural communities in Jamaica in regard to water and sanitation with a gender perspective. The findings of this research conclude that the burden of transporting water for household use, from up to 8 kilometers' distance, falls disproportionately on women and children in these communities. Serious sanitation and health issues arise from activities associated with the use of untreated water from springs, rivers, standpipes and canals, and women are more extensively affected by these concerns.

Building on this research, an investigation could be done of the ways in which climate change is impacting on greater or lesser water availability in these locations, and how this in turn aggravates health and sanitation impacts differentiated by gender, and leads to various coping and adaptation strategies by men and women in these communities.

Sector: Agriculture and Housing

One of the worrisome manifestations of climate change observed increasingly in the Caribbean region is the alteration of expected rain regimes, resulting in extreme excesses or shortages of rains that play out as droughts or floods. One instance of this phenomenon impacted heavily on Suriname in May 2006. A vast stationary rain cell generated several days of heavy rains, flooding rivers in the country's interior to levels not seen since 1949.

Given the different activities socially assigned to men and women in the Maroon and indigenous communities in this part of Suriname, women proved more vulnerable to the impacts of these floods. Women tend to work in the subsistence agriculture which is the mainstay of this region's economy, and which revolves around the household. Men often work outside the village compounds, in the cash-based mainstream economy in sectors such as mining, forestry and tourism services. The greater mobility, broader skills base and lesser domestic responsibilities of men in these communities have made them more resilient in the face of the extensive floods.

Appendix III: CRMI Guidelines for the Preparation of Case Studies on Climate Change Adaptation with a Gender Perspective in the Caribbean

1. Characterisation of the local society and economy. Each case study provided details on the local economy (paid and unpaid activities) and its related gender system. In particular the introductions provided the context of the gender system in which men and women have different roles and activities that relate to socially-conditioned expectations and the resulting gender division of labour. Each case study tried to explain how traditions and culture structure the gender system in the specific communities.
2. The case studies also described the risk situation to make explicit the links between climate change and disaster risks to the local populations.
3. Vulnerabilities and capacities that were specific to men and women in case study was explained as effects of the gender system described.
4. Adaptation strategies and measures used by women and by men to deal with existing climate variability such as droughts, floods, and the increased incidence of hurricanes were described.
5. Lessons learned. Provide reflections on lessons learned in this country, in relation to climate change adaptation strategies undertaken by men and women, which could be applicable in similar contexts throughout the Caribbean.



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Knowledge network promoting best practices in risk management
and climate change adaptation throughout the Caribbean.

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